"Health Care Quality Indicators - Hospital"

Esta pesquisa bibliográfica foi realizada no dia 8 de novembro de 2002, no sistema "MEDLINE", da "National Library of Medicine". Os termos pesquisados foram o MESH "Quality Indicators, Health Care" (Norms, criteria, standards, and other direct qualitative and quantitative measures used in determining the quality of health care) e a palavra "hospital". Restringimos a pesquisa para artigos com "abstract", no período 1998-2002.

1: Mod Healthc  2002 Sep 30;Suppl:16, 8, 20, 2

A matter of life and death. New research adds to evidence showing higher nurse-to-patient numbers can have a significant impact on mortality rates.

Evidence continues to mount indicating that higher nurse to patient staffing can have lifesaving effects in the hospital. A study involving nearly 2,200 hospitals shows that nurse staffing can indeed be a reliable predictor of risk-adjusted mortality.

PMID: 12389379 [PubMed - indexed for MEDLINE]


Geriatric hospital medicine.

Callahan EH, Thomas DC, Goldhirsch SL, Leipzig RM.

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Over the last decade, there have been dramatic developments in hospital geriatric care. These improved practices have been supported by the development of quality indicators, which allow physicians and other health care professionals to monitor and measure targeted processes and outcomes of care. This new understanding of the clinical complexity and heterogeneity of the hospitalized elderly population should not be perceived as solely the purview of geriatricians. All physicians involved in the hospital care of elderly patients should strive to attain the knowledge and skills described in this article. As the Baby Boom generation approaches 65 years, physicians and those involved in their training must anticipate and prepare for the reality that many of their patients will be elderly. Special expertise will be needed to provide the highest level of hospital care for this population, especially considering the
potential negative effects of hospitalization on older adults.

Publication Types:
Review
Review, Tutorial

PMID: 12365337 [PubMed - indexed for MEDLINE]

3: J Health Econ 2002 Sep;21(5):901-22

The effect of hospital ownership choice on patient outcomes after treatment for acute myocardial infarction.

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I examine the effect of ownership choice on patient outcomes after the treatment for acute myocardial infarction. I find that for-profit and government hospitals have higher incidence of adverse outcomes than not-for-profit hospitals by 3-4%. In addition, the incidence of adverse outcomes increases by 7-9% after a not-for-profit hospital converts to for-profit ownership, but there is little change in patient outcomes in other forms of ownership conversion. The findings are robust, whether I use the entire sample or subsamples of hospitals that share similar hospital and market characteristics.

PMID: 12349888 [PubMed - indexed for MEDLINE]

4: Milbank Q 2002;80(3):569-93, v

Teaching hospitals and quality of care: a review of the literature.

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Because teaching hospitals face increasing pressure to justify their higher charges for clinical care, the quality of care in teaching and nonteaching hospitals is an important policy question. The most rigorous peer-reviewed studies published between 1985 and 2001 that assessed quality of care by hospital-teaching status in the United States provide moderately strong evidence of better quality and lower risk-adjusted mortality in major teaching hospitals for elderly patients with common conditions such as acute myocardial infarction, congestive heart failure, and pneumonia. A few studies, however, found nursing
care, pediatric intensive care, and some surgical outcomes to be better in nonteaching hospitals. Some factors related to teaching status, such as organizational culture, staffing, technology, and volume, may lead to higher-quality care.

Publication Types:
Review
Review, Tutorial

PMID: 12233250 [PubMed - indexed for MEDLINE]

5: Jt Comm J Qual Improv 2002 Sep;28(9):510-26

Assessing consumer perceptions of inpatient psychiatric treatment: the perceptions of care survey.

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BACKGROUND: Consumer perceptions of behavioral health care are widely recognized as important quality indicators. This article reports the development and use of the Perceptions of Care (PoC) survey, a standardized public domain measure of consumer perceptions of the quality of inpatient mental health or substance abuse care. The goals were to develop a low-cost, low-burden survey that would address important quality domains, allow for interprogram comparisons and national benchmarks, be useful for quality improvement purposes, and meet accreditation and payer requirements. METHODS: The sample was composed of 6,972 patients treated in 14 inpatient behavioral health or substance abuse treatment programs. The PoC survey was given to patients by program staff in the 24-hour period before discharge. RESULTS: Aggregate reports and ratings of care identified areas that are highly evaluated by consumers, as well as areas that provide opportunities for quality improvement. Factor analysis identified four domains of care, and a 100-point score was developed for each domain. Regression analyses identified significant predictors of perceptions of care for use in computing risk-adjusted scores. Unadjusted and adjusted scores were presented to demonstrate the impact of risk adjustment on quality of care scores and relative ranking of programs. Examples were given of how programs used survey results to improve the quality of care. DISCUSSION: Results demonstrated that the PoC survey is sensitive to detecting differences among inpatient behavioral health programs and can be useful in guiding quality improvement efforts. However, risk adjustment is important for appropriate interpretation of results.

Publication Types:
Multicenter Study
BACKGROUND: Patient satisfaction surveys are useful in gaining an understanding of users' needs and their perceptions of the service received. AIM: To assess the views of outpatient department (OPD) attendees on the quality of service received. METHODS: OPD attendees were randomly selected from four acute hospitals in one health board region and sent a confidential postal questionnaire to assess their views on their visit. RESULTS: Of 3,037 attendees surveyed, there was a response rate of 75.7%. Levels of satisfaction were high at 94%. Doctors and nurses were perceived as friendly by 61% and 72%, professional by 44% and 30%, rushed by 8% and 7%, and rude by 1% and 1% of patients, respectively. Using logistic regression, age (being older), sex (being male), pain level (no pain), decisions about care (wanting more involvement) and being satisfied with their waiting time from arrival to being seen were significantly associated with a greater likelihood of being satisfied overall. CONCLUSION: Whilst there was a high level of satisfaction with the quality of care received, areas for improvement were highlighted from the patient's perspective.
indicators measuring the quality of total hospital performance can reflect medical outcome and the activities of physicians, nurses, and administrators. METHODS: Five indicators for measuring total hospital performance and for controlling total medical outcome were used in this study. RESULTS: Evaluation was time consuming, and some indicators showed a wide range, which could be explained by external reasons independent from internal quality. Valid values could be ascertained in the field of administrative quality, whereas in contrast the assessment of medical quality seemed to be more difficult. CONCLUSION: Due to current developments in German healthcare, the application of quality assurance methods such as the presented system of indicators is recommended.

PMID: 12168387 [PubMed - indexed for MEDLINE]


Nosocomial infections: important acute care nursing-sensitive outcomes indicators.

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Clinical and cost burdens related to nosocomial infections continue to plague the US healthcare system. Vulnerable populations, such as the elderly and the immunocompromised are especially at risk. Current evidence suggests that because hospital stays are shorter, nosocomial infection rates per 1000 patients have actually increased. Nosocomial infections, specifically bacteremias, have been targeted by the American Nurses Association as outcomes that can be affected by nursing in acute care settings. Nursing staffing and practices recently have been linked to the incidence of nosocomial infections. Participation in national databases and benchmarking techniques can provide data-based evidence that nursing practice influences nosocomial infections. Advanced practice nurses are key to ensuring that evidence-based practice environments, in which data drive decision-making, can flourish so that nurses can identify and implement practices that can reduce the rates of nosocomial infections.

Publication Types:
Review
Review, Tutorial

PMID: 12151989 [PubMed - indexed for MEDLINE]

9: Mod Healthc 1999 Dec 13;29(50):20-4, 28-9
Top 100 hospitals.

Morrisey J.

What sets high-performing hospitals apart from the rest of the pack? Despite dwindling Medicare revenues, they manage to get by on whatever they can get. The facilities that performed best clinically and operationally are also far more profitable than the industry at large, and they’re doing it despite a sicker patient census than the national norm. Those are among the findings in our report on the top 100 hospitals.

PMID: 12140822 [PubMed - indexed for MEDLINE]


Valid peer review for surgeons working in small hospitals.

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BACKGROUND: Hospitals with one or only a few practicing surgeons need a valid way to analyze the quality of their work. Head-to-head comparisons, especially in a competitive small environment, are not likely to be fruitful. METHODS: We compared the quality of surgical care delivered by a single surgeon whose practice was located in rural Kentucky with that of a group of peers in the same region. A surgical data sheet was completed by each of the participating surgeons from July 1, 1998, to September 1, 2001. The cases were entered into a database maintained by a professional limited liability corporation, which was founded to enhance the quality of surgical care. We measured quality of care based on complication rate, patient education, resource utilization, use of diagnostic testing, and number of days the patient returned to work. RESULTS: A total of 11,761 cases were entered into the database during the 38 months recorded. Of those, 256 cases were performed by the studied surgeon. The cases included skin and subcutaneous biopsies (n = 145), colonoscopies (n = 80), upper endoscopies (n = 25), and inguinal hernia repair (n = 6). The studied surgeon performed better than the peer group in the categories of patient education, complication rates, and use of diagnostics. Resource utilization, as measured by length of stay, was identified as an area that could be improved. CONCLUSIONS: By using this organization and its methods, a good way to identify strengths and weaknesses of delivered surgical care is enabled.

PMID: 12135712 [PubMed - indexed for MEDLINE]

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OBJECTIVE: To examine the impact of nurse staffing on selected adverse events hypothesized to be sensitive to nursing care between 1990 and 1996, after controlling for hospital characteristics. DATA SOURCES/STUDY SETTING: The yearly cross-sectional samples of hospital discharges for states participating in the National Inpatient Sample (NIS) from 1990-1996 were combined to form the analytic sample. Six states were included for 1990-1992, four states were added for the period 1993-1994, and three additional states were added in 1995-1996. STUDY DESIGN: The study design was cross-sectional descriptive. DATA COLLECTION/EXTRACTION METHODS: Data for patients aged 18 years and older who were discharged between 1990 and 1996 were used to create hospital-level adverse event indicators. Hospital-level adverse event data were defined by quality indicators developed by the Health Care Utilization Project (HCUP). These data were matched to American Hospital Association (AHA) data on community hospital characteristics, including registered nurse (RN) and licensed practical/vocational nurse (LPN) staffing hours, to examine the relationship between nurse staffing and four postsurgical adverse events: venous thrombosis/pulmonary embolism, pulmonary compromise after surgery, urinary tract infection, and pneumonia. Multivariate modeling using Poisson regression techniques was used. PRINCIPAL FINDINGS: An inverse relationship was found between RN hours per adjusted inpatient day and pneumonia (p < .05) for routine and emergency patient admissions. CONCLUSIONS: The inverse relationship between pneumonia and nurse staffing are consistent with previous findings in the literature. The results provide additional evidence for health policy makers to consider when making decisions about required staffing levels to minimize adverse events.

PMID: 12132597 [PubMed - indexed for MEDLINE]
This paper synthesizes results from peer-reviewed literature published from 1997 to mid-2001, on various dimensions of health maintenance organization (HMO) plan performance. Results from seventy-nine studies suggest that both types of plans provide roughly comparable quality of care, while HMOs lower use of hospital and other expensive resources somewhat. At the same time, HMO enrollees report worse results on many measures of access to care and lower levels of satisfaction, compared with non-HMO enrollees. Quality-of-care results in particular are heterogeneous, which suggests that quality is not uniform--that it varies widely among providers, plans (HMO and non-HMO), and geographic areas.

Publication Types:
Review
Review, Tutorial

PMID: 12117154 [PubMed - indexed for MEDLINE]


Patient and staff satisfaction with the quality of in-patient psychiatric care in a Nigerian general hospital.

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BACKGROUND: Patient satisfaction has been proposed as a simple measure of the quality of care. The present study aimed to assess how satisfied the patients and staff in an acute admission psychiatric unit were with experiences in the ward, including the physical environment, freedom, comfort, attitudes of staff towards patients, access to staff, and duration of hospitalization. METHOD: A descriptive study of all patients admitted for functional psychiatric disorders in a 5-month period was conducted. Patients and staff completed similar 16-item self-rated Likert-type questionnaires. Satisfaction was graded as follows: dissatisfaction (< 50 % positive appreciation), bare satisfaction (50-65 %), moderate (66-74 %), and highest satisfaction (> or = 75 %). RESULTS: The 118 patients were dissatisfied with items that indicated curtailment of their freedom, while the 35 staff were dissatisfied with the physical facilities for care. Highest satisfaction for patients and staff were for items on staff-patient relationship. Barely satisfactory items for patients included the time spent with doctors. Patients had a higher positive appraisal of the adequacy of physical facilities than staff, while staff had a more positive appraisal of their relationship with patients. There were no significant differences in satisfaction among diagnostic groups. CONCLUSION: The logical and discriminating manner in which patients assessed satisfaction supports the impression that they can be relied upon to make objective appraisal of the process of care, and that patient satisfaction is a valid index of the quality
Using an explicit guideline-based criterion and implicit review to assess antipsychotic dosing performance for schizophrenia.

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OBJECTIVE: Using structured implicit review as the gold standard, this study assessed the sensitivity and specificity of an explicit antipsychotic dose criterion derived from schizophrenia guidelines. DESIGN: Two psychiatrists reviewed medical records and made consensus-structured implicit review ratings of the appropriateness of discharge antipsychotic dosages for hospitalized patients who participated in a schizophrenia outcomes study. Structured implicit review ratings were compared with the explicit criterion: whether antipsychotic dose was within the guideline-recommended range of 300-1000 chlorpromazine milligram equivalents (CPZE). In addition, reasons for deviation from guideline dose recommendations were examined. SETTING AND STUDY PARTICIPANTS: A total of 66 patients hospitalized for acute schizophrenia at a Veterans Affairs medical center or state hospital in the southeastern US. MAIN OUTCOME MEASURES: The sensitivity and specificity of the explicit dose criterion at hospital discharge were determined in comparison with the gold standard of structured implicit review. RESULTS: At hospital discharge, 61% of patients (n = 40) were receiving doses within the guideline-recommended range. According to structured implicit review ratings, antipsychotic dose management was appropriate for 80% (n = 53) of patients. When the 300-1000 CPZE dose criterion (dosage within or outside the recommended range) was compared with structured implicit review, it demonstrated 84.6% sensitivity and 71.7% specificity for detecting inappropriate antipsychotic dose. CONCLUSIONS: The explicit antipsychotic dose criterion may provide a useful and efficient screen to identify patients at significant risk for quality of care problems; however, the relatively low specificity suggests that the measure may not be appropriate for quality measurement programs that compare performance among health plans.
Scale to measure patient satisfaction with physical therapy.

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BACKGROUND AND PURPOSE: Patient satisfaction can be one indicator of quality of care. In this study, a patient satisfaction questionnaire for physical therapy was developed. SUBJECTS: The subjects were a consecutive sample of 1,024 patients who received physical therapy between January and March 1999 at a teaching hospital in Geneva, Switzerland. METHODS: A cross-sectional mail survey was conducted in which a structured questionnaire measuring patient satisfaction with various aspects of physical therapy followed by open-ended questions was sent to the subjects. RESULTS: Overall, 528 of 1,024 patients (52%) responded (patient demographics for 501 respondents who provided demographic data: mean years of age=58.6, SD=18.9, range=15-95; 258 men, 243 women). Factor analysis was used to identify main domains of satisfaction, and a scale was constructed to measure satisfaction with each dimension: treatment subscale (5 items), admission subscale (3 items), logistics subscale (4 items), and a global assessment subscale (2 items). All subscales had good acceptability and small floor and ceiling effects. Internal consistency coefficients varied between .77 and .90, indicating good reliability for all subscales. Scale validity was supported by a logical grouping of items into subscales, according to their content, and by correlations of satisfaction scores with the patient's intention to recommend the facility and with the number of positive and negative comments to open-ended questions. Younger patients were less satisfied than older patients for 2 of the subscales (admission and logistics). DISCUSSION AND CONCLUSION: The 14-item instrument is a promising tool for the evaluation of patient satisfaction with physical therapy in both inpatients and outpatients.

PMID: 12088465 [PubMed - indexed for MEDLINE]

The moderators of patient satisfaction.

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The purpose of this study was to determine which Department of Defense (DOD) active duty patient sociodemographic, health status, geographic location, and utilization factors, predict overall patient satisfaction with health care in
Military facilities. A theoretical framework developed from patient satisfaction and social identity theories and from previous empirical findings was used to develop a model to predict patient satisfaction and delineate moderating variables. The major finding indicated in this study was the significance of patients' characteristics in moderating their satisfaction. Principal components factor analysis and hierarchical linear regression revealed that patient specific factors predicted patients' satisfaction after controlling for factors depicting patients' evaluations of health system characteristics. Patient specific factors provided added, although very minimal, explanatory value to the determination of patients' satisfaction. The study findings can aid in the development of targeted, objectively prioritized programs of improvement and marketing by ranking variables using patients' passively derived importance schema.

PMID: 12069351 [PubMed - indexed for MEDLINE]


Developing indicators of nursing quality to evaluate nurse staffing ratios.

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Concerns about the adequacy of patient care and safety in the state of California led to legislation that required the implementation of mandatory nurse staffing ratios. The authors describe a novel approach for identifying indicators that could be used to evaluate the impact of these regulations on quality of care and patient outcomes. The results of this project demonstrate that this is a useful method for identifying indicators appropriate for use in outcomes research with a focus on structural predictors of quality in healthcare.

PMID: 12055490 [PubMed - indexed for MEDLINE]

18: Jt Comm J Qual Improv 2002 May;28(5):220-32

Assessing performance reports to individual providers in the care of acute coronary syndromes.

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BACKGROUND: As part of a quality improvement initiative in the management of acute coronary syndromes, performance reports on care of patients with acute myocardial infarction (MI) or unstable angina (UA) who were admitted to two cardiology services at the University of Michigan Medical Center in 1999 were disseminated to a range of providers. METHODS: In 1999, data were routinely collected by chart review on presentation, comorbidities, treatments, outcomes, and key process of care indicators for nearly 300 patients with AMI and a similar number of patients with acute UA. Key process of care indicators and outcomes were the focus of the report cards for AMI and UA. RESULTS OF SURVEY ON REPORT CARDS: The return rate for the provider survey--a simple one-page, nine-item question/answer sheet--was highest among faculty who received physician-specific reports (14 out of 17; 82%). Overall, 18 (60%) of 30 providers indicated that the report was useful, 18 responded favorably to the format, and only 3 (10%) indicated that the information was repetitive. Importantly, 24 (80%) indicated a desire to see future performance reports. DISCUSSION: Although hospitalwide or even statewide reports have become familiar, their overall impact on care within hospitals or health systems is unknown. Because so many different caregivers affect the care of a single patient, it is difficult to identify all of these and to consider which part of the care oversight should be ascribed to each provider. The care process itself must be reengineered to build in the systems and time required to accomplish continuous evaluation and improvement.

PMID: 12053455 [PubMed - indexed for MEDLINE]


A new conceptual framework for ICU performance appraisal and improvement.

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PURPOSE: This study examined the use of outcomes for the purposes of ICU evaluation and improvement. We reviewed the strengths and weaknesses of an outcomes-centered approach to intensive care unit (ICU) evaluation and present a more comprehensive conceptual framework for ICU evaluation and improvement.

MATERIALS AND METHODS: Data was collected from 2 sources: (1) a structured review of the literature, with relevant articles identified using Medline, and (2) 85 semistructured interviews of health care professionals (eg, physicians) and health care administrators (eg, chief executive officer). The interviewees came from 4 institutions: a 900-bed East Coast teaching medical center, a 600-bed East Coast teaching medical center, a 590-bed East Coast teaching medical center, and a 435-bed West Coast private community hospital. A nonrandomized, purposeful sample was used. RESULTS: A conceptual framework for
ICU evaluation is presented that identifies and defines 3 different types of variables: performance (eg, appropriateness of care, effectiveness of care), outcome (eg, resource use, mortality), and process (eg, timeliness of treatment, work environment). The framework emphasizes performance variables and the relationships between performance, outcome, and process of care variables, as a logical focus for ICU evaluation and improvement. CONCLUSIONS: Performance variables offer distinct advantages over outcome variables for ICU evaluation. Their use, however, will require additional development of current evaluation tools and methods. They provide the ability to identify the value an ICU adds to patient care in a hospital or to an episode of illness, and to evaluate integrated systems for providing care. Copyright 2002, Elsevier Science (USA). All rights reserved.

Publication Types:
Review
Review, Academic

PMID: 12040545 [PubMed - indexed for MEDLINE]

20: J Crit Care 2002 Mar;17(1):1-12

Comment in:

Qualitative review of intensive care unit quality indicators.

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PURPOSE: The purpose of this study was to (1) conduct a systematic review of the literature to identify interventions that improve patient outcomes in the intensive care unit (ICU); (2) evaluate potential measures of quality based on the impact, feasibility, variability, and the strength of evidence to support each measure and to categorize these measures as outcome, process, access, or complication measures; and (3) select a list of candidate quality measures that can be broadly applied to improve ICU care. METHODS: We identified and independently reviewed all studies in Medline (1965-2000) and The Cochrane Library (Issue 3, 2001) that met the following criteria: design: observational studies, experimental trials, or systematic reviews; population: critically ill adults; and intervention: process or structure measure that was associated with improved patient outcomes: morbidity, mortality, complications, errors, costs, length of stay (LOS), and patient reported outcomes. Studies were grouped into categories by the type of outcome that was improved by the intervention. Potential quality measures were evaluated for: impact on morbidity, mortality,
and costs; feasibility of the measure; and variability in the measure. We evaluated the strength of evidence for each intervention used to improve outcomes and using the Delphi method, assigned an over-all recommendation for each quality measure. RESULTS: A total of 3,014 citations were identified. Sixty-six studies that met selection criteria reported on a variety of interventions that were associated with improved patient outcomes. We identified 6 outcome measures: ICU mortality rate, ICU LOS greater than 7 days, average ICU LOS, average days on mechanical ventilation, suboptimal management of pain, and patient/family satisfaction; 6 process measures: effective assessment of pain, appropriate use of blood transfusions, prevention of ventilator-associated pneumonia, appropriate sedation, appropriate peptic ulcer disease prophylaxis, and appropriate deep venous thrombosis prophylaxis; 4 access measures: rate of delayed admissions, rate of delayed discharges, cancelled surgical cases, and emergency department by-pass hours; and 3 complication measures: rate of unplanned ICU readmission, rate of catheter-related bloodstream infections, and rate of resistant infections. CONCLUSIONS: Further work is needed to create operational definitions and to pilot test the selected measures. The value of these measures will be determined by our ability to evaluate our current performance and implement interventions designed to improve the quality of ICU care. Copyright 2002, Elsevier Science (USA). All rights reserved.

Publication Types:
Review
Review, Academic

PMID: 12040543 [PubMed - indexed for MEDLINE]


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In the highly competitive health care environment, the survival of an organization may depend on how well powerful stakeholders are managed. Yet, the existing strategic stakeholder management process does not include evaluation of stakeholder management performance. To address this critical gap, this paper proposes a systematic method for evaluation using a stakeholder report card. An example of a physician report card based on this methodology is presented.

PMID: 11985292 [PubMed - indexed for MEDLINE]
Nursing quality outcome indicators. The North Dakota Study.

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The purpose of this study was to assess the feasibility and conduct a pilot study of the ANA Nursing Care Report Card Study in one state. Clinical indicators studied include agency data, skin integrity, patient falls, and nurse (n = 217) and patient (n = 924) satisfaction. Patients were well satisfied with their care. Nurses were less satisfied, with a significant difference between what was important to their satisfaction and their current level of satisfaction. Important information is included for hospital and nursing service administrators, as well as for nurses.

PMID: 11984237 [PubMed - indexed for MEDLINE]

Report cards don't make the grade with physicians or consumers.

Not popular with physicians or consumer, but they help with quality improvement initiatives.

PMID: 11963434 [PubMed - indexed for MEDLINE]

Utility scores for dimensions of clinical laboratory testing services from two purchaser perspectives.

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Information is critical for making health-care purchasing decisions. Identifying the importance of dimensions and criteria used by purchasers of clinical laboratory testing services is the second step in the development of a report card to evaluate such services. The purpose of this study was to quantify the utility--the importance of four dimensions: access, cost, quality, and
service—for two stakeholders of clinical laboratory testing services. Data were collected using a survey of hospital laboratories, as well as independent practice associations (IPAs) and preferred provider organizations (PPOs) that purchase clinical laboratory testing services. Although valued differently with respect to the magnitude of the utility score, both stakeholders rate quality and cost as first and second in importance. Managed-care organizations rate access and service as third and fourth in importance. Hospital laboratories consider service third in importance, yet with a similar utility score as that for managed-care organizations. Ten of 19 criteria (52.6%) were rated differently by the stakeholders. Using these utility scores for the dimensions and the criteria serves as a preliminary scoring system for a report card to evaluate clinical laboratory testing services.

PMID: 11951542 [PubMed - indexed for MEDLINE]

25: J Healthc Qual 2002 Mar-Apr;24(2):30-4

Determinants of patient satisfaction in a military teaching hospital.

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The purpose of this study was to determine the aspects of hospital services that are most likely to affect patient satisfaction in a military teaching hospital in Turkey. Although there have been many studies on patient satisfaction in Turkey and other countries, few studies have been done in military hospitals. A patient satisfaction questionnaire using a 4-point Likert scale was mailed to 500 patients after discharge, and 316 questionnaires were returned. The findings indicated that satisfaction with physician, nursing, physical plant, and food services were the main determinants of overall satisfaction with the hospital. The type of clinic in which the patients stayed also was an important determinant. The effect of patients' demographic characteristics on overall satisfaction with the hospital was also examined, and only lower education level was a statistically significant determinant.

PMID: 11942155 [PubMed - indexed for MEDLINE]


Left ventricular ejection fraction test rates for Medicare beneficiaries with heart failure.

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The left ventricular ejection fraction (LVEF) test rate is increasingly used as a quality of care indicator for patients with heart failure. Our study produced benchmark LVEF test rates in a Medicare fee-for-service population for consideration by a clinical panel assembled by the Health Care Financing Administration. Our sample consisted of 46,583 beneficiaries admitted to the hospital for heart failure and with a complete set of Medicare fee-for-service bills dated 1996 or 1997. The national 2-year LVEF test rate was 79% for Medicare fee-for-service beneficiaries hospitalized for heart failure. Except for 1 state, the test rate ranged from 61% to 89% across states. Our analysis demonstrates the feasibility of using billing data to compute LVEF test rates. Using a 2-year time window and measuring tests performed in outpatient as well as inpatient settings, we find a higher LVEF test rate than has been reported by most previous studies.

PMID: 11941996 [PubMed - indexed for MEDLINE]

27: J Health Serv Res Policy  2002 Apr;7(2):104-10


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Mortality statistics for English hospitals were published by the Labour government in 1998, partly in response to the tragedy at the Bristol Royal Infirmary involving the deaths or serious injury of babies and children who had had unsuccessful heart operations. Despite being presented as an important innovation, this publication policy had a number of precedents, most notably the data produced as a result of Florence Nightingale's efforts in the 1860s and the clinical indicators developed by the Scottish Office in the early 1990s. In addition, league tables of death rates for English hospitals were available from 1992 to 1996, although there was widespread ignorance of their existence. This paper examines each of these precedents before discussing events that weakened public trust in the medical profession's ability to regulate itself and led to the Labour government's decision to resurrect the publication of hospital mortality data. It is suggested that these performance indicators may be largely symbolic of the government's broader commitment to performance assessment, but it is also recognised that, if coupled with appropriate incentives, public disclosure of mortality data may foster genuine performance improvements.

Publication Types:
Patient and hospital characteristics associated with recommended processes of care for elderly patients hospitalized with pneumonia: results from the medicare quality indicator system pneumonia module.

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BACKGROUND: Unexplained wide variability exists in the performance of key initial processes of care associated with improved survival of elderly patients (those > or =65 years) hospitalized with pneumonia. The objective of this study was to assess which patient and hospital characteristics are associated with performance of these key initial processes of care for hospitalized elderly patients with pneumonia. METHODS: A retrospective cohort analysis was performed using data from the Medicare Quality Indicator System Pneumonia Module for 14,069 patients 65 years or older hospitalized with pneumonia throughout the United States. Associations were calculated using multivariate logistic regression analysis between specific patient and hospital characteristics and 2 processes of care associated with improved 30-day survival: administration of antibiotics within 8 hours of hospital arrival and blood culture collection within 24 hours of arrival. RESULTS: Timely antibiotic administration was negatively associated with nonwhite race (African American: odds ratio [OR], 0.71; 95% confidence interval [CI], 0.60-0.85; and other racial minorities: OR, 0.79; 95% CI, 0.68-0.92), major hospital teaching status (OR, 0.79; 95% CI, 0.67-0.93), and larger hospital size (> or =250 beds vs. <100 beds: OR, 0.68; 95% CI, 0.59-0.80). Timely blood culture collection was positively associated with larger hospital size (OR, 1.61; 95% CI, 1.39-1.87). Performance of both processes of care were positively associated with registered nurse-bed ratios of 1.25 or higher (for antibiotic administration: OR, 1.23; 95% CI, 1.10-1.38; and for blood culture collection: OR, 1.43; 95% CI, 1.26-1.61) and fever (for antibiotic administration: OR, 1.35; 95% CI, 1.23-1.49; and for blood culture collection: OR, 3.07; 95% CI, 2.81-3.34) and were negatively associated with hospital location in the South (for antibiotic administration: OR, 0.77; 95% CI, 0.69-0.86; and for blood culture collection: OR, 0.85; 95% CI, 0.77-0.93). CONCLUSIONS: Minority race, fever, nurse-bed ratio, hospital size and teaching status, and southern location are among the major patient and hospital characteristics associated, either negatively or positively, with the timeliness of performance of initial antibiotic administration and blood culture collection for patients hospitalized with pneumonia. Because performance of these processes of care is associated with improved likelihood of survival, medical providers...
should seek to eliminate the variations in care associated with these patient and hospital characteristics. In addition, the impact of nurse staffing changes on performance of key time-sensitive processes of care should be weighed carefully.

PMID: 11926859 [PubMed - indexed for MEDLINE]


Leapfrog Group jumps at chance to give consumers health care info.

If you wanted to buy a home appliance, you could find more information than if you needed to choose the best hospital--until now. The Leapfrog Group has just released its first comparative hospital data for more than 200 hospitals nationwide.

PMID: 11915160 [PubMed - indexed for MEDLINE]


Using comparison charts to assess performance measurement data.

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BACKGROUND: In 1997 the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) announced the ORYX initiative, which integrates outcomes and other performance measurement data into the accreditation process. JCAHO uses control and comparison charts to identify performance trends and patterns that are provided to JCAHO surveyors in advance of a health care organization's (HCO's) survey. During the survey, the HCO is asked to explain its rationale for its selection of performance measures, how the ORYX data have been analyzed and used to improve performance, and the outcomes of these activities. CONSTRUCTING COMPARISON CHARTS: A comparison chart, a graphical summary of the comparison analysis, consists of actual (or observed) rates, expected rates, and expected ranges (upper and lower limits) for a given time frame. The expected range describes the degree of certainty that a given point is different from the average score (population). THE USE OF COMPARISON CHARTS: Comparison charts are primarily useful for telling an HCO whether one of its selected performance measures may be evidencing one of the three types of measurement outcomes: exemplary performance, average performance, or substandard performance (indicating an opportunity for improvement). The comparison charts compare an HCO's outcomes to those of its comparison group or to its risk-adjusted data.
The charts provide guidance to an HCO about whether it should continue to monitor a process so as to maintain its current level of performance or whether it should try to improve its current performance.

PMID: 11902028 [PubMed - indexed for MEDLINE]

31: Health Aff (Millwood) 2002 Jan-Feb;21(1):89-102
Cost and quality trends in direct contracting arrangements.
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This paper presents the first empirical analysis of a 1997 initiative of the Buyers Health Care Action Group (BHCAG) known as Choice Plus. This initiative entailed direct contracts with provider-controlled delivery systems; annual care system bidding; public reports of consumer satisfaction and quality; uniform benefits; and risk-adjusted payment. After case-mix adjustment, hospital costs decreased, ambulatory care costs rose modestly, and pharmacy costs increased substantially. Process-oriented quality indicators were stable or improved. The BHCAG employer-to-provider direct contracting and consumer choice model appeared to perform reasonably well in containing costs, without measurable adverse effects on quality.

Publication Types:
Evaluation Studies

PMID: 11900098 [PubMed - indexed for MEDLINE]

Beyond the acute care setting: community-based nonacute care nursing-sensitive indicators.
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In 1994, concerns about the effects of hospital restructuring on patient care resulted in the American Nurses Association (ANA) undertaking a major, long-term initiative. Nursing's Safety & Quality Initiative (the Initiative) was designed to measure the impact of such changes on patient care. The Initiative has three major foci: research, continuing education, and legislation/policy. This article
addresses a recent development in the research component of the Initiative, involving the identification of nursing-sensitive indicators for community-based nonacute care.

PMID: 11898302 [PubMed - indexed for MEDLINE]


Identifying patient preoperative risk factors and postoperative adverse events in administrative databases: results from the Department of Veterans Affairs National Surgical Quality Improvement Program.

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BACKGROUND: The Department of Veterans Affairs (DVA) National Surgical Quality Improvement Program (NSQIP) employs trained nurse data collectors to prospectively gather preoperative patient characteristics and 30-day postoperative outcomes for most major operations in 123 DVA hospitals to provide risk-adjusted outcomes to centers as quality indicators. It has been suggested that routine hospital discharge abstracts contain the same information and would provide accurate and complete data at much lower cost. STUDY DESIGN: With preoperative risks and 30-day outcomes recorded by trained data collectors as criteria standards, ICD-9-CM hospital discharge diagnosis codes in the Patient Treatment File (PTF) were tested for sensitivity and positive predictive value. ICD-9-CM codes for 61 preoperative patient characteristics and 21 postoperative adverse events were identified. RESULTS: Moderately good ICD-9-CM matches of descriptions were found for 37 NSQIP preoperative patient characteristics (61%); good data were available from other automated sources for another 15 (25%). ICD-9-CM coding was available for only 13 (45%) of the top 29 predictor variables. In only three (23%) was sensitivity and in only four (31%) was positive predictive value greater than 0.500. There were ICD-9-CM matches for all 21 NSQIP postoperative adverse events; multiple matches were appropriate for most. Postoperative occurrence was implied in only 41%; same breadth of clinical description in only 23%. In only four (7%) was sensitivity and only two (4%) was positive predictive value greater than 0.500. CONCLUSION: Sensitivity and positive predictive value of administrative data in comparison to NSQIP data were poor. We cannot recommend substitution of administrative data for NSQIP data methods.

Publication Types:
Evaluation Studies

PMID: 11893128 [PubMed - indexed for MEDLINE]

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CONTEXT: Health care "report cards" have attracted significant consumer interest, particularly publicly available Internet health care quality rating systems. However, the ability of these ratings to discriminate between hospitals is not known. OBJECTIVE: To determine whether hospital ratings for acute myocardial infarction (AMI) mortality from a prominent Internet hospital rating system accurately discriminate between hospitals' performance based on process of care and outcomes. DESIGN, SETTING, AND PATIENTS: Data from the Cooperative Cardiovascular Project, a retrospective systematic medical record review of 141 914 Medicare fee-for-service beneficiaries 65 years or older hospitalized with AMI at 3363 US acute care hospitals during a 4- to 8-month period between January 1994 and February 1996 were compared with ratings obtained from HealthGrades.com (1-star: worse outcomes than predicted, 5-star: better outcomes than predicted) based on 1994-1997 Medicare data. MAIN OUTCOME MEASURES: Quality indicators of AMI care, including use of acute reperfusion therapy, aspirin, beta-blockers, angiotensin-converting enzyme inhibitors; 30-day mortality.

RESULTS: Patients treated at higher-rated hospitals were significantly more likely to receive aspirin (admission: 75.4% 5-star vs 66.4% 1-star, P for trend =.001; discharge: 79.7% 5-star vs 68.0% 1-star, P =.001) and beta-blockers (admission: 54.8% 5-star vs 35.7% 1-star, P =.001; discharge: 63.3% 5-star vs 52.1% 1-star, P =.001), but not angiotensin-converting enzyme inhibitors (59.6% 5-star vs 57.4% 1-star, P =.40). Acute reperfusion therapy rates were highest for patients treated at 2-star hospitals (60.6%) and lowest for 5-star hospitals (53.6% 5-star, P =.008). Risk-standardized 30-day mortality rates were lower for patients treated at higher-rated than lower-rated hospitals (21.9% 1-star vs 15.9% 5-star, P =.001). However, there was marked heterogeneity within rating groups and substantial overlap of individual hospitals across rating strata for mortality and process of care; only 3.1% of comparisons between 1-star and 5-star hospitals had statistically lower risk-standardized 30-day mortality rates in 5-star hospitals. Similar findings were observed in comparisons of 30-day mortality rates between individual hospitals in all other rating groups and when comparisons were restricted to hospitals with a minimum of 30 cases.
during the study period. CONCLUSION: Hospital ratings published by a prominent Internet health care quality rating system identified groups of hospitals that, in the aggregate, differed in their quality of care and outcomes. However, the ratings poorly discriminated between any 2 individual hospitals' process of care or mortality rates during the study period. Limitations in discrimination may undermine the value of health care quality ratings for patients or payers and may lead to misperceptions of hospitals' performance.

Publication Types:
Evaluation Studies

PMID: 11886319 [PubMed - indexed for MEDLINE]


Indicators for competent nursing practice.

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AIMS AND BACKGROUND: This paper identifies and classifies indicators for competent nursing practice and validates these indicators in a variety of settings. Descriptive data to address competent practice in a variety of settings were collected from staff nurses, head nurses and nursing directors in an acute 1000-bed university hospital in Finland. METHOD: The data obtained from 25 expert groups were analysed to identify a clinical set of indicators for competent nursing practice from the data. The relevance of this set of indicators in a variety of clinical settings was further validated with a second sample of expert nurses (n = 26). Thereafter, data were analysed to identify generic competencies that were applicable to all clinical working environments. RESULTS: Twenty-three generic indicators of competent nursing practice were identified in a variety of settings. The findings suggest that these competence indicators are meaningful to nurses with various backgrounds and practice settings. CONCLUSIONS: Collaboration and coordination, as well as the holistic management of the situation, are highly recognized as meaningful characteristics of competent nursing practice.

Publication Types:
Validation Studies

PMID: 11882110 [PubMed - indexed for MEDLINE]

Analysis of a population-based Pneumocystis carinii pneumonia index as an outcome measure of access and quality of care for the treatment of HIV disease.

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OBJECTIVES: A population-based Pneumocystis carinii pneumonia (PCP) Index was developed in New York City to identify geographic areas and subpopulations at increased risk for PCP. METHODS: A zip code-level PCP Index was created from AIDS surveillance and hospital discharge records and defined as (number of PCP-related hospitalizations)/(number of persons living with AIDS). RESULTS: In 1997, there were 2262 hospitalizations for PCP among 39 740 persons living with AIDS in New York City (PCP Index = .05691). PCP Index values varied widely across neighborhoods with high AIDS prevalence (West Village = .02532 vs Central Harlem = .08696). Some neighborhoods with moderate AIDS prevalence had strikingly high rates (Staten Island = .14035; northern Manhattan = .08756). CONCLUSIONS: The PCP Index highlights communities in particular need of public health interventions to improve HIV-related service delivery.

PMID: 11867318 [PubMed - indexed for MEDLINE]


Factors determining inpatient satisfaction with care.

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The objective of the study was to identify factors associated with satisfaction among inpatients receiving medical and surgical care for cardiovascular, respiratory, urinary and locomotor system diseases. Two weeks after discharge, 533 patients completed a Patient Judgments Hospital Quality questionnaire covering seven dimensions of satisfaction (admission, nursing and daily care, medical care, information, hospital environment and ancillary staff, overall quality of care and services, recommendations/intentions). Patient satisfaction and complaints were treated as dependent variables in multivariate ordinal polychotomous and dichotomous logistic stepwise regressions, respectively. Patient sociodemographic, health and stay characteristics as well as organization/ activity of service were used as independent variables. The two strongest predictors of satisfaction for all dimensions were older age and better self-perceived health status at admission. Men tended to be more satisfied than women. Other predictors specific for certain dimensions of
satisfaction were: married, Karnofsky index more than 70, critical/serious self-reported condition at admission, emergency admission, choice of hospital by her/himself, stay in a medical service, stay in a private room, length of stay less than one week, stay in a service with a mean length of stay longer than one week. The factors associated with inpatient satisfaction elucidated in this study may be helpful in interpreting patient satisfaction scores when comparing hospitals, services or time periods, in targeting patient groups at risk of worse experiences and in focusing care quality programs.

PMID: 11848270 [PubMed - indexed for MEDLINE]

38: J Community Health 2002 Feb;27(1):1-13

Results of a cooperative educational program to improve prostate pathology reports among patients undergoing radical prostatectomy.


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The information contained in pathology reports of radical prostatectomy specimens is critically important to treating physicians for the selection of adjuvant therapy, the evaluation of therapy, estimating prognosis, and analyzing outcomes. This information is also important to patients and their families. The first phase of this study consisted of a retrospective chart review of 554 cases of radical prostatectomy (ICD-9-CM procedure code of 60.5) in New York State for the second six-month period of 1996. This review focused on ten elements (quality indicators): submission of a frozen section, location of the adenocarcinoma, proportion of specimen involved by adenocarcinoma, perineural involvement, vascular involvement, seminal vesicle status, periprostate fat status, number of nodes submitted, status of nodes, and PIN (prostate intra-epithelial neoplasia). The second phase of this project consisted of an educational feedback program involving the directors of pathology laboratories in all hospitals in New York State. A post-intervention review of the medical charts of all male Medicare patients discharged from New York State acute care hospitals with the ICD-9-CM procedure code of 60.5 (radical prostatectomy) was conducted for the six-month period February 1 through July 31, 1999. A total of 304 charts were reviewed. Performance on the ten indicators in the first phase of the study varied from 14.8% (periprostate fat status) to 85.9% (seminal vesicle involvement). Performance for all hospitals was 50% for four quality indicators and less than 70% for seven. Post-intervention improvements in performance occurred with nine of the ten quality indicators. These improvements ranged from 1.4% (status of lymph nodes submitted) to 23.9% (proportion of specimen involved by adenocarcinoma). The results of this study demonstrate that the issues identified in the baseline with radical prostatectomy pathology reports were amenable to a cooperative educational intervention.
Using non-geriatric clinical indicators in a department of rehabilitation and aged care.

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We describe an audit using Gastroenterology Clinical Indicators (CIs) to measure quality of care for older patients with gastrointestinal haemorrhage. The gastroenterology CI for gastroscopy within 24 hours of admission was 60%, it was 70% for diagnosis of a cause of acute gastrointestinal bleeding after upper gastroscopy, and it was 30% for death after blood transfusion in a geriatric restorative unit. We discuss whether it is appropriate for a hospital department (Geriatric Medicine) to use the CIs for the specialty (Gastroenterology) providing the service to measure the quality of service being provided. This may be a useful approach given the trend towards cost recouping between different clinical departments.

Using control charts to assess performance measurement data.

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BACKGROUND: In 1997 the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) announced the ORYX initiative, which integrates outcomes and other performance measurement data into the accreditation process. JCAHO uses control and comparison charts to identify performance trends and patterns that are provided to JCAHO surveyors in advance of the organization's survey. During its survey, the health care organization (HCO) is asked to explain its rationale for its selection of performance measures, how the ORYX data have been analyzed and used to improve performance, and the outcomes of these activities.

WHAT DO CONTROL CHARTS DO? Control charts indicate whether an HCO's process is in statistical control (that is, stable insofar as only common cause variation exists) or out of statistical control (that is, unstable insofar as special
cause variation exists). With the presence of special cause variation, the HCO should not make any change in its processes until the special cause is identified and eliminated. CHOOSING THE CORRECT CONTROL CHART: An HCO can use many different control charts. Selecting the correct control chart type for the type of data collected makes interpretation more sensitive for detecting special cause variation. The ORYX measures are calculated as proportions (rates), ratios, and means (continuous variables data, such as average length of stay), and this information forms the basis for selecting the correct type of control chart. In addition, the average rate (especially for rare event measures) and the average number of cases need to be considered when selecting the control chart type for small population measures.

PMID: 11838300 [PubMed - indexed for MEDLINE]

41: Clin Leadersh Manag Rev 2002 Jan-Feb;16(1):7-16

Identification of criteria for a report card to evaluate clinical laboratory testing services.

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Report cards increasingly are considered useful to evaluate health-care services. Identifying important criteria to stakeholders of clinical laboratory testing services is the first step in the development of a report card to evaluate such services. The purpose of this study was to identify and examine criteria important to two stakeholders of these services. Three phases of data collection were conducted: 1) structured telephone interviews, 2) a modified two-round Delphi study, and 3) a verification survey of hospital laboratories that purchase reference laboratory testing services and Independent Practice Associations (IPAs) and Preferred Provider Organizations (PPOs) that purchase clinical laboratory testing services. Fifteen of 20 (75%) criteria from the verification survey were ranked between very important and essential by hospital laboratory and managed care organization purchasers. Eleven of 15 (73.3%) criteria were common to both purchaser groups. Six of 11 (54.5%) criteria from the service dimension were the most prevalent. In addition to quality, stakeholders consider criteria for service, access, and cost important. Combining the criteria identified by these two groups serves as the basis of a report card to evaluate these services.

PMID: 11828791 [PubMed - indexed for MEDLINE]

Minding your Ps and Qs. Are you measuring up?

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It seems that new sets of hospital quality of care and patient safety measures are created monthly. Some of the Joint Commission on the Accreditation of Healthcare Organizations measures are similar but different from the Peer Review Organization Sixth Scope of Work disease-specific measurement set, which varies from the Leapfrog measures, which are not the same as the proposed measures of the Michigan Health and Safety Coalition. These are but a few of the dozens of measurement sets.

PMID: 11828573 [PubMed - indexed for MEDLINE]

43: J Gerontol Nurs  2001 Nov;27(11):37-45

This is Heaven's waiting room: end of life in one nursing home.

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The purpose of this study was to describe the end of life in one midwestern nursing home from the perspective of residents who are chronically ill and declining, their family caregivers, and staff. Qualitative methods, including formal and informal interviews, participant observation, and health record abstraction, were used to describe the end of life for 13 nursing home residents. One dominating pattern, conflict, and five themes (i.e., communication, quality of life, staff education, teamwork, work environment) emerged as factors that influenced end-of-life care. The results of this study illustrate where and how problems within the nursing home industry, the participating nursing home, and between staff and residents influence and challenge care provided to dying residents.

Publication Types:
Evaluation Studies

PMID: 11820356 [PubMed - indexed for MEDLINE]


Structural versus outcomes measures in hospitals: a comparison of Joint
Outcomes performance measures are increasingly important in health care. The Joint Commission on Accreditation of Healthcare Organizations (Joint Commission) continues to rely on structure and process measures based on accepted good practice. One of the first tasks in moving to a more outcomes-oriented approach is to compare the two measurement approaches. This article compares seven non-federal general hospital performance measures derived from Medicare against Joint Commission scores. Joint Commission measures are generally not correlated with outcome measures. The few significant correlations that appear are often counterintuitive. We conclude that a potentially serious disjuncture exists between the outcomes measures and Joint Commission evaluations.

PMID: 11799828 [PubMed - indexed for MEDLINE]

45: BMJ 2002 Jan 19;324(7330):135-41

Comment in:
BMJ. 2002 Jan 19;324(7330):142.
BMJ. 2002 Jan 19;324(7330):142-3.
BMJ. 2002 Jan 19;324(7330):143.
BMJ. 2002 Jan 19;324(7330):132; discussion 1332.
BMJ. 2002 Jun 1;324(7349):1332; discussion 1332.
BMJ. 2002 Jun 1;324(7349):1332; discussion 1332.
BMJ. 2002 Jun 1;324(7349):1332; discussion 1332.
BMJ. 2002 Jun 1;324(7349):1332; discussion 1332.
BMJ. 2002 Jun 1;324(7349):1332; discussion 1332.
BMJ. 2002 Jun 1;324(7349):1332; discussion 1332.
BMJ. 2002 Jun 1;324(7349):1332; discussion 1332.

Getting more for their dollar: a comparison of the NHS with California’s Kaiser Permanente.

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OBJECTIVE: To compare the costs and performance of the NHS with those of an integrated system for financing and delivery health services (Kaiser Permanente) in California. METHODS: The adjusted costs of the two systems and their performance were compared with respect to inputs, use, access to services, responsiveness, and limited quality indicators. RESULTS: The per capita costs of
the two systems, adjusted for differences in benefits, special activities, population characteristics, and the cost environment, were similar to within 10%. Some aspects of performance differed. In particular, Kaiser members experience more comprehensive and convenient primary care services and much more rapid access to specialist services and hospital admissions. Age adjusted rates of use of acute hospital services in Kaiser were one third of those in the NHS.

CONCLUSIONS: The widely held beliefs that the NHS is efficient and that poor performance in certain areas is largely explained by under investment are not supported by this analysis. Kaiser achieved better performance at roughly the same cost as the NHS because of integration throughout the system, efficient management of hospital use, the benefits of competition, and greater investment in information technology.

PMID: 11799029 [PubMed - indexed for MEDLINE]

46: Ugeskr Laeger 2001 Dec 10;163(50):7048-52

[Measurement of quality of care and the "soft values" at a pediatric department]

[Article in Danish]

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INTRODUCTION: Medical care must be provided in accordance with high professional standards and patients' needs and priorities. MATERIALS AND METHODS: In this study, interviews with parents and focus group interviews with the health care staff (doctors and nurses) were conducted in order to set quality standards and define related indicators for emergency admittance to a paediatric department. According to the standards, the quality of care was measured with the indicators developed. One hundred and fifty episodes of care were assessed by questionnaires covering parent satisfaction, registration of waiting times, and investigation of case records. RESULTS: In 17% of the episodes, there were waiting times of more than 2 hours before seeing a doctor. Various quality problems were identified. Thirty-one medical standards of the episodes of care were assessed in a structured audit process. The results of the clinical audit showed that some standards were met only in 50% of the episodes. DISCUSSION: Quality development must be implemented on a documented basis. Improvements have been implemented according to the results.

PMID: 11794036 [PubMed - indexed for MEDLINE]
BACKGROUND: The so-called "external quality assurance" allows the comparison of hospitals using selected quality indicators for process and outcome of care. The methods were developed in early projects of perinatologists and surgeons in the mid 70s. The comparative statistics inform hospitals about their strengths and deficiencies compared to other hospitals.

STATE OF THE ART: Since 2001 the Federal Committee on Quality Assurance (Bundeskuratorium Qualitätssicherung) requests the realization of external quality assurance measures for 27 diseases and procedures in all German hospitals based on the 5th Social Law. If hospitals refuse participation or participate incompletely, they have to expect financial sanctions. The comparative statistics enable first assessments of the quality of hospital care. However, the methods have to be improved if they will be used to demonstrate quality of hospital care to people outside the hospitals.

PMID: 11785379 [PubMed - indexed for MEDLINE]

BACKGROUND: The effect of hospital quality of care on hospital readmission for patients with congestive heart failure (CHF) has not been widely studied.

METHODS AND RESULTS: We examined the effects of clinical factors, hospital quality of care, and cardiologist involvement on 3-month readmission rates in patients with CHF by using a 125-item explicit review instrument comprising 3 major domains: admission work-up, evaluation and treatment, and readiness for...
discharge. During the 3 months after discharge, 59 (30%) of 205 patients were readmitted for CHF. The average evaluation and treatment score was lower for readmitted patients (63% v 58%; P = .04). The specific quality criteria differing between patients readmitted or not readmitted included the performance of any diagnostic evaluation, performance of echocardiography in patients with unknown ejection fraction or suspected valvular disease, and therapy with an angiotensin-converting enzyme inhibitor on discharge. Patients with <or=50% of the evaluation and treatment criteria met were more likely to be readmitted (odds ratio, 2.5; 95% confidence interval, 1.1-5.3; P = .02). In a multivariate model including both clinical characteristics and quality criteria, a low evaluation and treatment score was an independent predictor of readmission. Cardiologist involvement was correlated with higher quality-of-care scores in the admission work-up (4.8% higher; P < .01) and evaluation and treatment (8.6% higher; P < .0001). CONCLUSIONS: Hospital quality of care for patients with CHF is independently associated with 3-month readmission rates, and cardiologist involvement during hospitalization is associated with overall quality of care.

PMID: 11782850 [PubMed - indexed for MEDLINE]

49: J Nurs Adm 2001 Dec;31(12):588-600

Hospital restructuring and its impact on outcomes: nursing staff regulations are premature.

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OBJECTIVE: Describe restructuring in the organization and delivery of patient care and the effects of nursing structure and processes on selected patient outcomes. BACKGROUND: Restructuring has been the dominant cost-reduction strategy in acute care hospitals. Changes occurred without a systematic look at how interventions impacted on the processes and outcomes of care. METHODS: Twenty-nine university teaching hospitals participated. Uniform structure, process, and outcome data were collected from each hospital and its study, medical, and surgical units. Outcome data included fall rate, nosocomial pressure ulcer, and urinary tract infection rates and patient satisfaction scores. RESULTS: RNs were fewer in number, with an increase in Unlicensed Assistive Personnel. Outcomes were affected by registered nurse hours worked per patient/day and hours worked per patient day by all staff and their interactions with processes. Increased registered nurse hours worked per patient/day were associated with lower fall rates and higher patient satisfaction levels with pain management. Increased hours worked per patient day by all staff were associated with lower urinary tract infection rates. CONCLUSIONS: Data from this study do not enable specific staffing recommendations. Expanded hospital and
unit level data should be collected and reported annually. Nursing staff regulations should be deferred until expanded structure and outcome data from all acute care hospitals are systematically collected, reported, and analyzed.

PMID: 11771464 [PubMed - indexed for MEDLINE]


Seeking consumer views: what use are results of hospital patient satisfaction surveys?

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There has been increasing emphasis on the use of patient satisfaction surveys in publicly funded health services to assess elements of quality of care. However, how these surveys are used to change policy and services has received less attention. This paper reports on two different surveys conducted in Victoria, Australia and how these have developed and been used at a policy level. One is a survey of recent mothers, repeated three times over the course of the decade. The other is an inpatient survey developed over the past 5 years. The results of the surveys are publicly available and are one means of obtaining consumer views, influencing health care quality and reporting to the public.

PMID: 11769748 [PubMed - indexed for MEDLINE]


[Quality indicators pertinence and limits in medicine: example of nosocomial infections]

[Article in French]

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Insuring that quality indicators really measure quality of care and not other factors, such as the type of intervention or the patients’ characteristics, is notoriously difficult. In order to avoid as much as possible these potential methodological pitfalls, the association FoQual (www.hospvd.ch/quality/foqual) requested in the year 2000 the opinion of experts on the scientific value of some indicators, considered for introduction into practice by the commission on
quality of care representing the Swiss hospital association and the health insurers' association (H+/CAMS), as well as on theoretical and practical aspects essential to guarantee their efficiency. The expert group Swiss-NOSO (www.hospvd.ch/swiss-noso) was asked to assess the indicator "nosocomial infection". This example illustrates some pitfalls to avoid, the importance of including infectious surveillance into a global prevention program and ask professionals with a specific training and independence from hospital wards to perform this activity. It shows the complexity of setting up and exploiting quality indicators in health care and the side effects that they might have.

Publication Types:
Review
Review, Tutorial

PMID: 11765562 [PubMed - indexed for MEDLINE]

52: Top Health Inf Manage  2001 Nov;22(2):79-91

Service line assessment and performance management through information integration: the case for cardiovascular services.

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Understanding the performance of clinically sophisticated services has become increasingly vital to ensuring the success of a health care organization. Health care delivery systems and providers will require well-designed performance management systems, which is underscored by an operating environment of declining margins, increased capacity issues, and labor shortages in key areas. This article reviews the case for cardiovascular service line assessment and performance management, specifically as a case study example of strategic, focused, and actionable measurement and assessment of clinical and financial performance for both clinical and administrative leaders. The integration of administrative data for comprehensive and strategic assessment of clinically sophisticated services is explored in depth, along with product line definition and positioning.

PMID: 11761796 [PubMed - indexed for MEDLINE]

53: Top Health Inf Manage  2001 Nov;22(2):73-8

Leveraging performance measurement and management: the quality and efficiency edge.
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The University HealthSystem Consortium (UHC) is a mission-based, member driven alliance of academic health centers. UHC’s objectives are to pool resources, create economies of scale, improve clinical and operating efficiencies, and influence the direction and delivery of health care. To assist our members in developing these strategies, UHC conducted concurrent clinical and operational cardiology benchmarking projects. The goals of the cardiology-benchmarking project were to: Identify successful organizational structures and operational processes used by members to provide cardiology service. Identify methods to maximize productivity, and manage supply and equipment costs. Share methods of measuring and reporting outcomes (report cards, databases).

PMID: 11761795 [PubMed - indexed for MEDLINE]


A comparison of ambulatory care-sensitive hospital discharge rates for Medicaid HMO enrollees and nonenrollees.

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With an increasing volume of Medicaid recipient enrollees in managed care, many states are developing tools for monitoring service quality and access of Medicaid recipients. This article explores the use of ambulatory care-sensitive (ACS) hospital discharge rates as a simple, practical indicator tool for monitoring the access of Medicaid health maintenance organization (HMO) enrollees through an empirical application in Massachusetts in 1995. Although unadjusted hospital discharge rates were lower, Medicaid HMO enrollees had higher age-gender-race adjusted total and ACS hospital discharge rates than Medicaid recipients enrolled in a primary care case management program under fee-for-service reimbursement. Higher HMO discharge rates for the specific ACS conditions of asthma and dehydration were suggestive of potential HMO access problems.

PMID: 11759197 [PubMed - indexed for MEDLINE]

55: Med Care 2002 Jan;40(1):7-16

Comment in:
Effect of definition of mortality on hospital profiles.

Johnson ML, Gordon HS, Petersen NJ, Wray NP, Shroyer AL, Grover FL, Geraci JM.

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BACKGROUND: Hospitals are ranked based on risk-adjusted measures of postoperative mortality, but definitions differ about which deaths following surgery should be included. OBJECTIVE: To determine whether varying the case definition of deaths following surgery that are included in coronary artery bypass surgery quality assessment affects the identification of outlier hospitals. RESEARCH DESIGN: The study used a prospective cohort design. SUBJECTS: A total of 15,288 patients undergoing coronary artery bypass surgery without other cardiac procedures from October 1993 to March 1996 at all (N = 43) Veterans Affairs hospitals that conduct cardiac surgery. MEASURES: The first measure included any death occurring within 30 days after surgery, regardless of cause, in or out of the hospital (30-day mortality). The second measure included 30-day mortality plus any death occurring 30 days to 6 months after surgery that was judged to be a direct result of a perioperative complication of the surgery (all procedure-related mortality). RESULTS: Hospital performance as assessed by the two different definitions of death varied substantially. The rankings of hospitals differed for 86% (37/43) of hospitals. Twenty-one percent (9/43) changed their quartile of rank, and five hospitals changed their outlier status. The correlation of observed-to-expected ratios was high (r = 0.96), but there was disagreement of outlier status (kappa = 0.71). CONCLUSIONS: Judgments regarding the quality of a hospital's performance of coronary artery bypass surgery vary depending on the definition of postoperative mortality that is used. Further research is needed to assess what definition is most appropriate to identify quality of care problems.

PMID: 11748422 [PubMed - indexed for MEDLINE]
Associations between hospital volume or physician caseload and patient outcome have been used to assess the performance of health care providers. Although most studies have focused on major surgical procedures, in-hospital or 30-day mortality from many nonsurgical conditions and procedures has also been examined. Although high volume may be a surrogate for the provider's skill and experience, and better outcomes may attract greater volumes, aggregate data on provider volume show many outliers indicating that the outcome for some low-volume providers is better than that for high-volume providers. Mortality is only one measure of medical care quality. Although high volume may not always be indicative of favorable outcome, referral of patients from low-volume to high-volume providers has been recommended. It has also been suggested that patients choose health care providers on the basis of physician caseload. It is unclear how such recommendations could be implemented in practice; furthermore, they would deprive many patients from access to, as well as disrupt the provision of, adequate health care in many areas. An alternative to requiring patients to receive care from high-volume providers is to adopt other measures for improving outcomes, such as improving the quality of care provided by low-volume providers and attracting better providers to low-volume areas.

PMID: 11747851 [PubMed - indexed for MEDLINE]

57: Health Policy Plan 2001 Dec;16(4):395-403

Quality of hysterectomy care in rural Gujarat: the role of community-based health insurance.

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Community-based health insurance (CBHI) may be a mechanism for improving the quality of health care available to people outside the formal sector in developing countries. The purpose of this paper is: (1) to identify problems associated with the quality of hysterectomy care accessed by members of SEWA, an Indian CBHI scheme; and (2) to discuss mechanisms that might be put in place by SEWA, and CBHI schemes more generally, to optimize quality of health care. Data on the structure and process of hysterectomy care were collected primarily through review of 63 insurance claims and semi-structured interviews with 12 providers. Quality of hysterectomy care accessed by SEWA's members varies tremendously, from potentially dangerous to excellent. Seemingly dangerous aspects of structure include: operating theatres without separate hand-washing facilities or proper lighting; and the absence of qualified nursing staff. Dangerous aspects of process include: performing hysterectomy on demand; removing both ovaries without consulting or notifying the patient; and failing to send the excised organs for histopathology, even when symptoms and signs are suggestive of disease. Women pay substantial amounts of money even for care of
poor, and potentially dangerous, quality. In order to improve the quality of hospital care accessed by its members, a CBHI scheme can: (1) gather data on the costs and complications for each provider, and investigate cases where these are excessive; (2) use incentives to encourage providers to make efficient and equitable resource allocation decisions; (3) select, and contract with, providers who provide a high standard of care or who agree to certain conditions; and (4) inform and advise doctors and the insured about the costs and benefits of different interventions. In the case of SEWA, it is most feasible to identify a limited number of hospitals providing better-quality care and contract directly with them.

PMID: 11739364 [PubMed - indexed for MEDLINE]


[Cerebral palsy as indicator of quality of neonatal care]

[Article in Norwegian]

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BACKGROUND: An investigation of the prevalence of cerebral palsy in relation to neonatal intensive care. MATERIAL AND METHODS: Population based study in live-born children with birthweight > or = 500 g in the Norwegian county of Vestfold over the 25-year period 1970-94 (n = 58,448). Retrospective and prospective control of cases (cases with a postneonatal origin of cerebral palsy excluded) with a minimum follow-up to four years of age. RESULTS: Cerebral palsy was diagnosed in 139 cases (2.4 per 1,000). The prevalence declined from 2.8 per 1,000 in the first five-year cohort born 1970-74, to 2.2 per 1,000 in children born in each of the three five-year cohorts born 1980-84, 1985-89, and 1990-94 (p = 0.24). The neonatal mortality rate declined significantly from 8.7 per 1,000 in the first to 2.8 per 1,000 in the last five-year cohort (p < 0.0001). The low birthweight (500-2,499 g) rate in live-born infants increased significantly in 1990-94 compared to 1985-89 (4.5% vs 3.9% respectively; p < 0.05). After a local ventilator treatment programme (operative from 1989) was established, transports of infants with severe respiratory distress syndrome to the regional hospital declined from 3 per 1,000 live-born infants to 1 per 1,000 (p < 0.0001). INTERPRETATION: A decentralised neonatal intensive care programme can be developed, with substantial decline in neonatal mortality without a corresponding increase in cerebral palsy prevalence.

PMID: 11715773 [PubMed - indexed for MEDLINE]
Contemporary staffing-mix changes: the impact on postoperative pain management.

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This retrospective, descriptive study of 2 surgical units in 2 hospitals examined correlations between staffing mix and pain management as a process indicator of quality after the implementation of a staffing model designed to increase unlicensed assistive personnel and decrease registered nurses and licensed vocational nurses in the skill mix. Statistically significant increases in numeric pain scores were found for patients (n = 203) in diagnosis-related group 209 who were dependent on nurse-administered analgesia (NAA) and for those patients given epidural or spinal analgesia. Pain scores for patients with patient-controlled analgesia tended to decrease, as did the scores of patients using a combination of patient-controlled analgesia and epidural/spinal anesthesia. A fair degree of relationship was found between increased registered-nurse staffing as a percentage of staffing mix and lower numeric pain scale scores for the NAA subgroup. Similarly, increased unlicensed assistive personnel staffing as a percentage of the staffing mix was found to be related to increased pain scale scores in the NAA subgroup.

Publication Types:
Multicenter Study

PMID: 11706772 [PubMed - indexed for MEDLINE]
processes of care ranged from 0.68 to 1.0. The adjusted kappa associated with overall eligibility to receive the pneumonia-related processes of care was 0.63. The kappa statistics for determining if processes of care were provided ranged from 0.56 to 0.83 and increased to 0.65 and 0.85 upon adjustment for the prevalence effect. Kappas for the composite quality indicators were lower, but improved with adjustment for the prevalence effect. The composite quality indicator with the highest adjusted kappa value was oxygenation assessment (0.93); the composite quality indicator with the lowest adjusted kappa value was antibiotic administration within 8 hours of hospital arrival (0.74). This study establishes the reliability of pneumonia indicators and underscores the need for reliability assessment at the quality indicator level, as well as at the component level.

Publication Types:
Validation Studies

PMID: 11675161 [PubMed - indexed for MEDLINE]

61: Int J Health Plann Manage 2001 Jul-Sep;16(3):229-41

Quality evaluation and indicator comparison in health care.

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By 2005 all healthcare organizations in Europe will be required to take part in a quality evaluation scheme and to collect data about the quality of their service. Hospitals and doctors will need to prove they are safe--quality is no longer assumed. These were the predictions of a recent workshop of Nordic quality experts. The pressures to assess quality are increasing, and there are many assessment, certification, accreditation and measurement schemes in use. Which is best? What evidence is there that any have been effective? How should a hospital or region introduce such a scheme? There are many proponents for different schemes, and an increasing amount of experience to help answer these questions, but little research. This paper provides an overview for non-specialists of the different quality evaluation and indicator schemes for inspection and improvement. It draws on the experiences of quality specialists and leaders in each Nordic country who have applied the schemes in public hospitals and healthcare services. How a scheme is introduced and used may be more important than which particular scheme is chosen. This is one conclusion of the Nordic workshop. Other conclusions are that there is a need for clinicians to be involved, a need to balance simplicity and low cost with scientific validity and crediblity with clinicians, and a need for research into different schemes to discover their costs and benefits in healthcare.
Prediction of readmission to acute psychiatric units.

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BACKGROUND: Many factors are known to influence readmission to psychiatric wards, and readmission rates have been suggested as proxy outcome indicators of quality. METHOD: Korner returns were used to ascertain readmission rates for all psychiatric admissions to acute wards in North Staffordshire, 1987-1993. Predictor variables were derived from Korner returns or obtained from the 1991 Census data. Survival analysis techniques were used to examine which variables predicted readmission. RESULTS: A predictive model was derived using Cox regression, which followed the observed data at greater than chance probability (chi²=48.5, df=4, P < 0.001). A psychotic diagnosis was the most influential predictor of readmission. CONCLUSION: Length of stay is not predictive in the Cox regression model, which suggests patients are not being prematurely discharged. The derived models may have value in service planning, audit and resource allocation.


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BACKGROUND: As part of a broader effort aimed at improving hospital safety, a large coalition of employers, the Leapfrog Group, will soon require hospitals caring for their employees to meet volume standards for 5 high-risk surgical procedures.
procedures. We estimated the potential benefits of full nationwide implementation of these volume standards. METHODS. Using data from Nationwide Inpatient Sample and other sources, we first estimated the total number of each of the 5 procedures-coronary-artery bypass graft, abdominal aortic aneurysm repair, coronary angioplasty, esophagectomy, and carotid endarterectomy-performed each year in hospitals in US metropolitan areas. (Leapfrog exempts hospitals in rural areas to avoid access issues.) We then projected the effectiveness of volume standards (in terms of relative risks of mortality) for each procedure using data from a published structured literature review. RESULTS: With full implementation nationwide, the Leapfrog volume standards would save 2581 lives. Of the procedures, volume standards would save the most lives with coronary-artery bypass graft (1486), followed by abdominal aortic-aneurysm repair (464), coronary angioplasty (345), esophagectomy (168), and carotid endarterectomy (118). In our estimates of the number of lives saved, we considered assumptions about how many patients would be affected and the effectiveness of volume standards (ie, strength of underlying volume-outcome relationships with each procedure). CONCLUSIONS: If the Leapfrog volume standards are successfully implemented, employers and health-care purchasers could prevent many surgical deaths by requiring hospital volume standards for high-risk procedures.

PMID: 11562662 [PubMed - indexed for MEDLINE]


Improving medical care for West Virginia seniors.

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Using data published by the Health Care Financing Administration (HCFA), supplemented with information obtained from West Virginia Medicare claims data and Medicare hospital records, we compared the performance of West Virginia physicians and hospitals on 22 quality of care indicators for six common conditions. The conditions are myocardial infarction, congestive heart failure, atrial fibrillation, stroke, breast cancer screening and pneumonia. Quality indicator performance for most indicators in West Virginia from 1997-98 was lower than the average of the 19 states with data collected at the same time. For some indicators, such as early use of beta blockers following myocardial infarction (52.7%), administration of influenza vaccine (58.2%), and warfarin prescription to atrial fibrillation patients (45.1%), the state's care ranked near the bottom. However, quality scores varied widely among West Virginia health care providers, suggesting that statewide improvement in care is feasible. Ongoing efforts among physicians, hospitals and the peer review organization are aimed at achieving such improvement.
Laboratory results. Timeliness as a quality attribute and strategy.

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Although timeliness of results reporting has not been a major focus in clinical laboratories, there is increasing pressure from clinicians to report results rapidly. Even though there are only sparse data, timeliness in reporting of laboratory results undoubtedly affects clinician and patient satisfaction as well as length of hospital stay. Improving turnaround time (TAT) is a complex task involving education, equipment acquisition, and planning. All the steps from test ordering to results reporting should be monitored and steps taken to improve the processes. Various strategies to improve TAT at each step in the testing process are discussed.

Publication Types:
Review
Review, Tutorial

Development of performance measures for acute ischemic stroke.


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BACKGROUND AND PURPOSE: The purpose of the present study was to develop and rate performance measures for hospital-based acute ischemic stroke. METHODS: A national multidisciplinary panel of 16 individuals (2 stroke specialists, 2 general neurologists, 2 interns, 2 neuroscience nurses, 2 stroke advocacy organization representatives, 1 stroke rehabilitationist, 1 family practitioner, 1 emergency room physician, 1 neuroradiologist, 1 managed care organization director, and 1 hospital association representative) from 10 medical societies or lay organizations assisted in the development of 44 potential stroke
performance measures. We developed evidence summaries for each of the performance measures and graded the level of evidence associated with each measure. The panel received a summary of the literature pertaining to each measure and rated the measures by use of a modified Delphi approach for 6 dimensions of quality, including validity of evidence, feasibility, impact on outcomes, room for improvement, plausibility, and an overall rating (little reason to do, could do, should do, and must do). RESULTS: Highly rated and agreed on performance measures for the overall rating include warfarin in atrial fibrillation, antithrombotics on hospital discharge, carotid imaging in appropriate patients, and use of stroke units. Additional measures notable for high agreement were heparins for deep-vein thrombosis prophylaxis and use of a stroke protocol. Panelists rated time-related thrombolytic measures such as head CT within 25 minutes highly on the room for improvement dimension but low on the overall dimension. Neurologists tended to rate measures lower than did nonneurologists (P<0.01) for all 9 measures pertaining to thrombolytic management. CONCLUSIONS: Highly rated and agreed on performance measures exist in all domains of hospital-based stroke care.

Publication Types:
Consensus Development Conference Review

PMID: 11546898 [PubMed - indexed for MEDLINE]

67: Med Care 2001 Sep;39(9):1014-24

Length of stay as a source of bias in comparing performance in VA and private sector facilities: lessons learned from a regional evaluation of intensive care outcomes.

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OBJECTIVES: Compare intensive care unit (ICU) mortality and length of stay (LOS) in a VA hospital and private sector hospitals and examine the impact of hospital utilization on mortality comparisons. RESEARCH DESIGN: Retrospective cohort study. SUBJECTS: Consecutive ICU admissions to a VA hospital (n = 1,142) and 27 private sector hospitals (n = 51,249) serving the same health care market in 1994 to 1995. MEASURES: Mortality and ICU LOS were adjusted for severity of illness using a validated method that considers physiologic data from the first 24 hours of ICU admission. Mortality comparisons were made using two different multivariable techniques. RESULTS: Unadjusted in-hospital mortality was higher in VA patients (14.5% vs. 12.0%; P = 0.01), as was hospital (28.3 vs. 11.3 days; P <0.001) and ICU (4.3 vs. 3.9 days; P <0.001) LOS. Using logistic regression to adjust for severity, the odds of death was similar in VA patients, relative to
private sector patients (OR 1.16, 95% CI 0.93-1.44; P = 0.18). However, a higher proportion of VA deaths occurred after 21 hospital days (33% vs. 13%; P <0.001). Using proportional hazards regression and censoring patients at hospital discharge, the risk for death was lower in VA patients (hazard ratio 0.70; 95% CI 0.59-0.82; P <0.001). After adjusting for severity, differences in ICU LOS were no longer significant (P = 0.19). CONCLUSIONS: Severity-adjusted mortality in ICU patients was lower in a VA hospital than in private sector hospitals in the same health care market, based on proportional hazards regression. This finding differed from logistic regression analysis, in which mortality was similar, suggesting that comparisons of hospital mortality between systems with different hospital utilization patterns may be biased if LOS is not considered. If generalizable to other markets, our findings further suggest that ICU outcomes are at least similar in VA hospitals.

PMID: 11502958 [PubMed - indexed for MEDLINE]


The use of volume standards in health services.

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The ways in which volume standards are implemented by health services organizations are not clear. Therefore, the authors sought to evaluate the extent of use of volume standards, the purposes for which such standards were developed, and the sources of the standards in a sample of health services organizations. The authors found that volume standards were used widely by accrediting organizations, professional societies, and hospitals in their sample, but almost never by health maintenance organizations. Volume standards were used for ensuring adequate experience among residents, providing guidelines to residency programs, and privileging and credentialing physicians. Expert consensus appeared to be the usual source of volume standards.

PMID: 11499351 [PubMed - indexed for MEDLINE]


Is cancer care best at high-volume providers?

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For a variety of medical conditions and procedures, a higher volume-better outcome relationship has been hypothesized for over 25 years. An extensive, consistent body of literature supports a relationship between hospital volume and short-term outcomes for cancers treated with technologically complex surgical procedures. For cancer primarily treated by low-risk surgery, there are few studies. Recent studies found a modest (about 2%) difference in survival benefit between high-volume and low-volume providers associated with colon cancer surgery. Few evaluations in the last 15 years have addressed nonsurgical cancers, eg, lymphomas and testicular cancer. No reports have addressed recurrent or metastatic cancer. Care is better at high-volume providers for a select minority of cancers. Whether provider volume matters in the majority of cancers at the time of presentation has not been evaluated.

Publication Types:
Review
Review, Tutorial

PMID: 11489240 [PubMed - indexed for MEDLINE]

70: Int J Health Care Qual Assur Inc Leadersh Health Serv 2000;13(6-7):266-72

Quality system based on the standard SFS-EN ISO 9002 in Kuopio University Hospital.

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Kuopio University Hospital, situated within middle-east Finland, adopted the ISO 9002 standard as its quality system and gained formal certification in March 1999. The rationale behind the decision to adopt ISO 9002 is given, along with the main elements of the journey. The experiences of the hospital, including the advantages and disadvantages, are explained. In particular, issues regarding the documentation process, control and calibration of 4,000 pieces of medical equipment and the impact on staffing levels for in-house trained personnel to undertake the audits are described. The impact on the service to date, including benefits and drawbacks, is covered, along with aspirations for the future. Kuopio Hospitals adopted some techniques during the implementation process which did not work as successfully as others. The article therefore includes these in an effort to pass on the learning acquired from implementing ISO 9002 within such a large hospital as Kuopio University Hospital.

PMID: 11484644 [PubMed - indexed for MEDLINE]
Impact of a resident strike on emergency department quality indicators at an urban teaching hospital.


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OBJECTIVE: To evaluate the indicators of activity and quality within the emergency department (ED) during a resident physicians’ strike. METHODS: This was an observational study comparing a strike period (SP) and a non-strike period (NSP) in the ED of a 1,000-bed tertiary care teaching hospital in Barcelona, Spain, with an annual census of 100,000 emergency visits. During a period of nine nonconsecutive days, the resident physicians were on strike. Emergency visits were handled by staff members. Data were compared between all patients treated in the ED during the SP and those treated during the NSP, matched by the weekday. The authors compared lengths of stay (LOSs), rates of use of laboratory tests and radiology procedures, numbers of patient walkouts, patient/physician ratios, emergency hospital admission rates, home discharge rates, unscheduled return rates, and mortality rates. RESULTS: The two groups (SP 2,610 patients and NSP 3,634 patients) were comparable in terms of average daily attendance rate (SP: 290 +/- 12 vs NSP: 302 +/- 21; p = 0.13), elective hospital admission rate, and severity of illness. Statistically significant differences were found in terms of mean total patients’ LOS (SP: 206.75 +/- 12.27 vs NSP: 235.10 +/- 27.08 minutes; p < 0.001), number of laboratory tests per patient (SP: 0.30 +/- 0.05 vs NSP: 0.38 +/- 0.04; p < 0.001), and radiographs per patient (SP: 0.78 +/- 0.06 vs NSP: 0.88 +/- 0.09; p = 0.021).

CONCLUSIONS: This study demonstrated that replacing residents with staff physicians resulted in fewer laboratory tests ordered, fewer radiographs ordered, and shorter lengths of stays in the ED.

PMID: 11483455 [PubMed - indexed for MEDLINE]
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This article describes the development of a set of measures focused on use of and complications following sedation and analgesia. This group of measures is another step in a 15-year quest of a group of hospitals and other healthcare providers to identify ways to better monitor and understand performance--and thereby improve their ability to identify opportunities for improvement. The article describes in detail the practical steps taken to develop, test, and implement the measures, as well as some of the fundamental conceptual issues associated with cost and benefits of performance measurement. Finally, it examines the pilot-test experience for the measures--both the individual hospitals' efforts to implement data collection and the aggregate data that resulted from the pilot test.

PMID: 11482237 [PubMed - indexed for MEDLINE]

73: J Healthc Qual 2001 Jul-Aug;23(4):33-7
A guide to using performance measurement systems for continuous improvement.

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The Joint Commission on Accreditation of Healthcare Organizations requires accredited organizations to use a performance measurement system that meets its inclusion requirements to satisfy performance outcome and measurement expectations. The system, known as the ORYX initiative, is used for both internal performance control and external performance comparisons. This article outlines a three-step approach to using a performance measurement system based on the philosophy of continuous improvement and the methods of statistical process control (SPC). SPC, the methodology recommended by the Joint Commission, can be applied to the analysis of many quality measures and can be implemented with Microsoft Excel software.

PMID: 11482234 [PubMed - indexed for MEDLINE]

74: Am Heart J 2001 Aug;142(2):263-70
Quality of care among elderly patients hospitalized with unstable angina.

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BACKGROUND: Guidelines for the management of unstable angina have been published by the United States Agency for Health Care Policy and Research (currently known as the Agency for Healthcare Research and Quality); however, little information is available about the quality of unstable angina care, particularly among elderly patients. METHODS: We examined 1196 elderly Medicare-insured patients hospitalized with unstable angina (ruled out for acute myocardial infarction) at Connecticut hospitals between August and November 1995 to evaluate quality of care provided during hospitalization. Patients without therapeutic contraindications were evaluated for the use of 5 Agency for Health Care Policy and Research guideline-recommended measures: electrocardiographic examination within 20 minutes of admission, use of aspirin on admission, intravenous heparin on admission, achievement of therapeutic anticoagulation among patients provided heparin, and prescription of aspirin on discharge. RESULTS: Less than half (49.6%) of patients underwent electrocardiographic examination within 20 minutes of admission. After excluding patients with contraindications, aspirin was provided to 80.1% of patients and intravenous heparin to 59.2% of indicated patients, of whom only 43.3% achieved therapeutic anticoagulation. Aspirin was prescribed to 82.3% of eligible patients at discharge. Performance on the 5 quality measures varied widely among hospitals. CONCLUSIONS: Agency for Health Care Policy and Research guideline-recommended risk stratification and therapeutic interventions are underused in elderly patients hospitalized with unstable angina, with quality of care varying widely among hospitals.

Publication Types:
Evaluation Studies

PMID: 11479465 [PubMed - indexed for MEDLINE]


NTS versus waiting time: an indicator without definition.

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OBJECTIVE: The National Triage Scale versus waiting time is a key performance indicator for Australasian emergency departments. However, the point at which the clock starts to measure waiting time has not been defined. The aim of this study was to determine how this indicator is measured in Australia, as well as a number of other issues relating to the application of the National Triage Scale.

METHODS: A postal survey was sent to the directors of emergency medicine at 147
emergency departments in Australia. RESULTS: There were 105 responses (71.4%). For measurement of the National Triage Scale versus waiting time indicator, 52 (49.5%) started the clock at the time of patient arrival, 33 (31.4%) at the start of triage, and 11 (10.5%) at the end of triage. Seventy-four emergency departments (70.5%) change the National Triage Scale (NTS) after it has been assigned, and approximately half use set codes for given presentations. Only 28 (26.7%) automatically upgrade children one NTS category. The age definition of a child ranged from 3 years to 18 years. CONCLUSIONS: The measurement of this key performance indicator is not consistent across Australia. Therefore, caution is advised when comparing such data between departments. The Australasian College for Emergency Medicine should produce operational definitions relating to the use of the National Triage Scale in order to provide meaningful comparative data.

Publication Types:
Multicenter Study

PMID: 11476411 [PubMed - indexed for MEDLINE]


UHC records project is attention grabber.

Talk about benchmarking in general and most hospitals will probably think of clinical quality indicators or financial comparisons. But for the University HealthSystem Consortium of Oak Brook, IL, a recently completed project has benchmarked medical records practices at 37 member facilities.

PMID: 11474947 [PubMed - indexed for MEDLINE]


Competition no obstacle in a new cancer project created by consortium.

Cancer hospitals always are quick to explain that they are different, often pointing to their special commitment to their patients and ability to deal with end-of-life issues. But those differences are rarely accounted for in the benchmarking data they use. The facilities have a keen sense of competition and have, until recently, been unwilling to come together for benchmarking purposes. But all that changed in 1997 when the Joint Commission on Accreditation of Healthcare Organizations started talking about ORYX. Cancer hospital executives knew from experience that comparing data with noncancer hospitals wouldn't be useful, so a group of them came together and created a National Cancer Database initiative that would allow for subcomparisons within the ORYX system.
To evaluate the performance of intensive care unit (ICU) the severity scores are measured on the first day; organ system dysfunctions are measured several times during the stay. The severity scores are developed from large data bases of thousands of patients. They include the patient age, previous health status, severity and sometimes the main diagnosis. Prediction models are published to evaluate the risk of death for each patient. By adding the risk of death of each patient and dividing by the number of patients, the expected mortality rate is calculated. By comparing the observed and expected mortality rates the Standard Mortality Ratio (SMR) may be measured. The data collection must be rigorous, the studied population must be similar to the population of the large data bases. Other elements of performance may be evaluated, such as the cost-efficiency or the quality of life or surviving patients.

Publication Types:
Review
Review, Tutorial

PMID: 11471386 [PubMed - indexed for MEDLINE]


'Failure to rescue' as a measure of quality of hospital care: the limitations of secondary diagnosis coding in English hospital data.

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Although it is widely recognized that quality of care varies between hospitals, a robust and valid measure of outcome that can be used in comparisons has proven elusive. One measure that has recently been proposed by US researchers is the 'failure to rescue' (FTR) rate. This is based on the assumption that, whereas
complications may reflect both patient severity and health care factors, the ability to save patients once complications arise is much more closely related to the quality of health care. We describe an evaluation of FTR in a national sample of English hospitals using hospital episode data. We found that the rate of secondary diagnosis recording in England is about one-tenth that in the United States. The FTR rate would be highly sensitive to variations in the completeness of coding of secondary diagnoses. Unless coding is of uniformly high quality, any attempt to compare severity adjusted outcomes will be potentially unreliable.

Publication Types:
Validation Studies

PMID: 11469370 [PubMed - indexed for MEDLINE]


PQM--Psychiatry Quality Measurement.

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As a consequence of an increased awareness of quality management in psychiatry the Lundbeck Institute has developed a software program called Psychiatry Quality Measurement (PQM). This is an electronic documentation and quality measurement system with a large data-collating function to record longitudinal data of the full psychiatric visit, covering all aspects of an evaluation and follow-up. Using the full ICD-10 and DSM-IV classifications, the system has been designed to assist with quality measurement in all psychiatric diagnoses. A full statistical package is included in the program to calculate outcomes of treatment (including relapse rates, improvements in psychopathology, severity and frequency of side-effects, and costs of treatment) as tables and graphs ready for presentation in a Powerpoint format. The system is fully translatable and flexible for various implementation settings, including stand-alone PCs or hospital network systems, all ICD-10 or DSM-IV diagnoses, and the possibility of the use of over 20 psychopathology and side-effect scales to measure the quality of care of all psychiatry patients.

PMID: 11459329 [PubMed - indexed for MEDLINE]

OBJECTIVE: To gain insight into the incidence of nosocomial infections and associated risk factors in Intensive Care Units (ICUs). DESIGN: Prospective.

METHOD: From July 1997 to December 1999, standardised surveillance of nosocomial infections was implemented in ICUs in 16 hospitals in the Netherlands. Surveillance was performed in patients with an ICU stay of > or = 48 hrs; data were collected from admission until discharge from ICU. Data-collection included demographic data and patient- and treatment-related risk factors. The data were aggregated in a national database. RESULTS: In the research period, hospitals sent good quality data for aggregation in the national database on 2795 patients (61% male) and 27,922 ICU patient days. The median length of stay was six days, the median ‘Acute physiology and chronic health evaluation’ (APACHE) II score was 17 and the median age was 67 years. A total number of 749 infected patients were found with 1,177 nosocomial infections (27% of patients, 42 infections/1000 patient days), consisting of 43% pneumonia, 20% sepsis, 21% urinary tract infections, 16% other types of infections. Out of all the patients, 62% was on mechanical ventilation, 64% had a central venous line and 89% had a urinary catheter in situ. Selective decontamination of the gastrointestinal tract was used for 12% of the patients, and systemic antibiotics for 68%. Micro-organisms most frequently isolated were Pseudomonas aeruginosa in patients with pneumonia, Staphylococcus epidermidis in catheter-related bloodstream infections and Escherichia coli in patients with urinary tract infections. Large differences in device use and incidence of infections were observed between the ICUs.

CONCLUSION: The aggregated data gave insight into the incidence of nosocomial infections and associated risk factors in ICUs. The data are meant as references to support decision- and policy-making in local infection control programs.

PMID: 11455692 [PubMed - indexed for MEDLINE]


Hospital readmission: predicting the risk.

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This approach focused on identifying specific variables that predict the likelihood of readmission. It involved clinical, utilization, and demographic variables that are generally available on hospital computer abstract databases. The approach included a process for identifying and comparing individual variables with the highest risk of readmission. It also contained a procedure for assembling risk populations including combinations of variables. The approach demonstrated the potential for using risk analysis to maximize the focus of clinical management on patient outcomes while reducing the amount of resources required for this process.

PMID: 11452643 [PubMed - indexed for MEDLINE]

83: J Nurs Care Qual 2001 Jul;15(4):60-8

Maintaining quality care during a nursing shortage using licensed practical nurses in acute care.

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Implications of an aging registered nurse workforce, coupled with an inadequate supply of new nurses, presented a unique challenge for the nurse executive in an acute care hospital. This article presents one possible solution: reintroduction of licensed practical nurses to the patient care setting. It describes a pilot project initiated to answer the following question: Is there a change in quality of patient care or staff satisfaction when the nursing care delivery system adds a licensed practical nurse to the registered nurse and patient care assistant care pairs? It also describes the driving forces behind this practice change and presents focus group discussions, the implementation process, and conclusions and recommendations.

Publication Types:
Evaluation Studies

PMID: 11452642 [PubMed - indexed for MEDLINE]


Hospice quality improvement programs: an initial examination.

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Recognizing that little is known about use of quality improvement (QI) processes to enhance care of the dying, 11 large hospices exchanged information about their QI programs. These hospices reported monitoring from 3 to 50 outcomes measured by various indicators and methods. Agencies that related QI to their organization's mission, goals, and strategic plan were more likely to have dedicated QI staff; a more intense, comprehensive, and participatory QI program; and more QI projects resulting in performance enhancement. Both accomplishments and difficulties were identified in several areas, including establishing benchmarks, involving staff, and using computer technology to manage and analyze QI data.

Publication Types:
Evaluation Studies

PMID: 11452640 [PubMed - indexed for MEDLINE]

85: Orv Hetil 2001 May 27;142(21):1103-9

[Quality indicators of hospital care: evaluation of patient care in acute myocardial infarction]

[Article in Hungarian]

Belicza E, Balogh A, Szocska M.

Egeszsegugyi Menedzserkepzo Kozpont, Semmelweis Egyetem, Budapest.

In the international hospital accreditation programs there is an increasing emphasis on involving performance indicators. The inpatient mortality rate of AMI patients and the usage of thrombolytic therapy are very common, evidence based indicators of these programs. The authors goal was to analyze the applicability of these indicators in the evaluation of the Hungarian hospital care. In Hungary, there is a data collection system on every inpatient case. This database was used to determine the above mentioned two indicators for 1997 and 1998. They calculated by hospital group level, by institutions and by geographic areas crude rates and rates adjusted for age and gender, and for severity using the different DRGs of AMI patients. In these two years the inpatient mortality rates of AMI patients were 20.4% and 21.7%, and the usage of thrombolytic therapy were 9.9% and 11.8%, respectively. Using indirect standardization methodology in the usage of thrombolytic therapy, they found high differences among the counties compared to the national average, the range was 51-199%, and among the institutions 0-306%, respectively. It is clear, that there are huge differences in the curative processes and in the inpatient
mortality rates of AMI patients among the hospitals. The differences are developed by chance, there are no close connections either to hospital groups, or to geographical locations. Because of the difficulties of risk adjustment, they suggested that indicators were suitable for benchmarking. It is necessary to implement in the national quality criteria system different indicators for evaluating the patient care, to develop programs for auditing the best and worst hospitals and to introduce standards for assuring the validity of the basic data.

PMID: 11449839 [PubMed - indexed for MEDLINE]


Information as a distinct dimension for satisfaction assessment of outpatient psychiatric services.

Perreault M, Katerelos TE, Sabourin S, Leichner P, Desmarais J.

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The purpose of this study is to verify whether information on services would appear as a distinct dimension of satisfaction in a multidimensional scale. Data collection was performed in two phases: 263 patients received the original version of the questionnaire and 200 received an adapted version of the scale. The findings suggest that not only is it important to consider information as a distinct dimension of satisfaction but it is equally important to examine three categories, consisting of satisfaction with information on; patients’ problems/illness; distinct treatment components such as medication and psychotherapy; and patients’ treatment progress.

Publication Types:
Validation Studies

PMID: 11436746 [PubMed - indexed for MEDLINE]

87: Int J Health Care Qual Assur Inc Leadersh Health Serv 2001;14(2-3):104-10

Modified importance-performance analysis: an application to hospitals.

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This paper seeks to investigate the reasons why, in an increasingly competitive health care milieu, patients choose certain hospitals over others. It introduces
the modified importance-performance analysis technique and presents the method and findings of an empirical study which applied importance-performance analysis in a health care setting. The strategies derived from the study findings are discussed.

PMID: 11436745 [PubMed - indexed for MEDLINE]

88: Arch Pathol Lab Med 2001 Jul;125(7):863-71

Physician satisfaction and emergency department laboratory test turnaround time.

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OBJECTIVES: To determine the length of time for the components of the emergency department (ED) turnaround time (TAT) study in 1998 and to ascertain physician satisfaction concerning laboratory services to the ED. METHODS: Using forms supplied by the College of American Pathologists Q-Probes program, participants conducted a self-directed study of ED TAT over a 4-week period. Data requested included various times of day associated with the ordering, specimen collection, laboratory receipt, and result-reporting stages of stat ED TATs for potassium and hemoglobin. Additionally, practice-related questions associated with the laboratory were asked. Participating laboratories also provided a physician satisfaction survey for up to 4 physicians who were users of ED services. Results of both the TAT study and the physician satisfaction survey were returned by mail. Participants were drawn from the 952 hospital laboratories enrolled in the 1998 College of American Pathologists Q-Probes study on ED TAT. The main outcome measures included the components of the ED TAT process, factors associated with decreases in ED TAT, and the results of the physician satisfaction survey. RESULTS: Six hundred ninety hospital laboratories (72.4% response rate) returned data on up to 18 230 hemoglobin and 18 259 potassium specimens. Half of these laboratories responded that 90% of potassium tests were ordered and reported in 69 minutes or less, whereas the TAT for 90% of hemoglobin results was 55 minutes or less. Comparison of the components of TAT for both potassium and hemoglobin with similar studies done in 1990 and 1993 showed no change. Factors found to statistically contribute to faster TATs for both tests were laboratory control of specimen handling and rapid transport time. When whole blood specimens were used for potassium determination, TAT improved. Emergency department physicians chose the study-defined lower satisfaction categories of Often, Sometimes, Rarely, and Never for the questions concerning the laboratory being sensitive to stat testing needs (39.1%) and meeting physician needs (47.6%). Many of the physicians surveyed believed that laboratory TAT caused delayed ED treatment more than 50% of the time (42.9%) and
increased ED length of stay more than 50% of the time (61.4%) when compared with other specialty users of the ED. CONCLUSIONS: Laboratory ED TATs have remained unchanged for almost a decade. Emergency department physicians are not satisfied with laboratory services. Although it appears that one issue may relate to the other, the interaction between the laboratory and the ED is quite complex and has been evolving for at least 30 years. Improvement in interoperability between the departments is essential for operational efficiency and patient care. Effective communication channels need to be established to achieve these goals.

PMID: 11419969 [PubMed - indexed for MEDLINE]

Joint Commission faces several key challenges.

Dennis O’Leary, MD, says the Joint Commission made significant strides last year in widening the scope of the organization’s reach across health care settings and refining the tools it uses to measure the quality of care provided. But he quickly adds that those accomplishments pale in comparison to the challenges that lie ahead.

PMID: 11419253 [PubMed - indexed for MEDLINE]

90: Qual Lett Healthc Lead 2001 May;13(5):9-10, 1
Nurse staffing found to impact quality of care.

The size and mix of nurses in a hospitals throughout the country make a difference in the quality of care provided to patients, according to a Department of Health and Human Services study released last month. The study, Nurse Staffing and Patient Outcomes in Hospitals, found a consistent relationship between nurse staffing and outcomes for four medical conditions—urinary tract infections, pneumonia, shock, upper gastrointestinal bleeding—and length-of-stay.

PMID: 11400327 [PubMed - indexed for MEDLINE]

91: J R Soc Med 2001;94 Suppl 39:9-12
Improving quality measures in the emergency services.

Armitage M, Flanagan D.
A large and continuing increase in medical emergency admissions has coincided with a reduction in hospital beds, putting the acute medical services under great pressure. Increasing specialization among physicians creates a conflict between the need to cover acute unselected medical emergencies and the pressure to offer specialist care. The shortage of trained nursing staff and changes in the training of junior doctors and the fall in their working hours contribute to the changing role of the consultant physician. The organization of the acute medical service is of paramount importance and requires multi-disciplinary teamwork on an admissions unit with full support services. Excellent bed management is essential. There must be guidelines for all the common medical emergencies and all units must undertake specific audits of the acute medical service. Continuing professional development (CPD) and continuing medical education (CME) should reflect the workload of the physician; that is, it must include time specifically focused on acute medicine and general (internal) medicine, as well as the specialty interest.

Publication Types:
Review
Review, Tutorial

PMID: 11383434 [PubMed - indexed for MEDLINE]

92: J R Soc Med 2001;94 Suppl 39:4-8

Objective standards for the emergency services: emergency admission to hospital.

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The primary objectives of the emergency services are to minimize early mortality and complications, although longer-term morbidity, quality of life and late mortality may also be influenced by early actions. Evaluation of the emergency services and demonstration of quality need to reflect these objectives by appropriate choice of outcome measures. This brief review of leading measures of quality in emergency admissions discusses population-based 30-day mortality, after examining some limitations of ‘hospital mortality’, incidences of complications, which can be more sensitive measures of quality of care when mortality rates are low, and a role for audit and management, when relationships between process and outcome are clear. As an example, the UK study of urgent admission to hospital, on behalf of the Clinical Standards Advisory Group, showed wide variation between sampled hospitals in timeliness of early clinical actions and a statistically significant association between timeliness and
30-day survival. The review also discusses capacity, a necessary requirement for a quality service, and operations research/queueing theory to facilitate management of capacity/resources to meet fluctuating demands. The NHS should be able to plan for seasonal needs.

Publication Types:
Review
Review, Tutorial

PMID: 11383429 [PubMed - indexed for MEDLINE]

Evaluating emergency services activity at the health district level.

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We do not have good information on the incidence and prevalence of emergency conditions nor is there good research evidence on the best ways of meeting these. There are, however, some indicators for evaluating emergency services activities and we have a good framework from Donabedian for evaluation, and the important dimensions of quality specified by Maxwell. The range of emergency services covers primary care, community crisis care, ambulance services, hospital services (accident and emergency [A&E] department, inpatient, critical care), laboratory (blood supplies, tests), social services, and public health. There are about eight main sources of current indicators. Unfortunately the availability, timeliness, and quality of these indicators is variable. A new development is situation reporting on emergency pressures (‘Sitreps’). This provides a fortnightly and sometimes daily picture of current emergency activity as measured by key indicators such as the number of delayed discharges from hospital, the number of cancelled operations, and the number of medical inpatients outlying on other wards. ‘Sitreps’ was particularly helpful in handling emergency activity at the new millennium period. We need to specify a comprehensive, valid and easily collectable data set for assessing the quality of emergency services. This would include better ways of forecasting for early warning purposes. This could be done by monitoring the incidence of absenteeism, the sale of over-the-counter drugs, and the number of deaths in nursing homes.

Publication Types:
Review
Review, Tutorial

PMID: 11383427 [PubMed - indexed for MEDLINE]
Setting standards for pathology service support to emergency services.

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Quality standards have been established in two key areas of pathology directly relevant to standards for the provision of emergency medical services. First, there is a national scheme for accreditation of laboratory services--Clinical Pathology Accreditation (UK) Ltd (CPA)--which has been in formal operation since 1992 and currently covers about 80% of all UK laboratories. Secondly, guidelines have been issued by the Joint Working Group on Quality Assurance (JWGQA) on the support to any point-of-care (near patient) testing facilities. Point-of-care testing (POCT) is increasingly popular in emergency areas, where the availability of faster test results is expected to expedite diagnosis and treatment. When laboratory services are not accredited or POCT equipment and its usage are outside laboratory supervision, there should be concerns that quality standards for pathology service support of the emergency services are not being met.

Publication Types:
Review
Review, Tutorial

PMID: 11383426 [PubMed - indexed for MEDLINE]

What are the standards for the emergency anaesthetic services?

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Anaesthetists provide services throughout acute hospitals in areas such as the delivery floor and the intensive therapy unit as well as working in their traditional role in the operating theatre. Consensus standards of the number of staff needed to provide a satisfactory level of acute anaesthetic services, their qualifications and experience and the resources they require have been produced by a number of organizations. It is probable that many small and medium-sized district general hospitals will be unable to meet these standards without changes to traditional UK staffing structures.
There are numerous standards currently available that relate to accident and emergency medicine. Some of these relate to organizational structure; others are clinical and relate either to the process of care or to outcomes. Few, if any, deal explicitly with the dimensions of quality mentioned in recent white papers about the NHS. It is suggested, to maximize the effect standards have on care, that they should be developed for existing technologies not just for novel ones, rigorously developed and effectively disseminated and implemented, formally evaluated after their introduction and mutually compatible.

The maternal mortality rate was the first measure of quality in the obstetric services. It is a crude indicator but is still used for international comparisons. In the UK, confidential enquiries into maternal and perinatal deaths produce recommendations the implementation of which is not well audited as yet. 'Near misses' are harder to define but are audited in individual units. Standards drawn up by the Central Negligence Scheme for Trusts could potentially
promote improvements. The Royal College of Midwives and the Royal College of Obstetricians and Gynaecologists have jointly published standards of care in labour wards. Gynaecological standards are less well developed but should evolve as NHS audit improves.

Publication Types:  
Review  
Review, Tutorial

PMID: 11383423 [PubMed - indexed for MEDLINE]


The standards for emergency surgical services.

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Gross underfunding of the National Health Service in England and Wales results in too few beds and operating theatres and too few nurses and doctors. Thus, standards of surgical care, particularly for emergencies, are compromised. The service requires sufficient senior and trainee surgeons to meet the needs of specialization, working together in an acceptable surgical rota which enables both dedication to emergency admissions and continuity of care. Calculation of local manpower needs demands an understanding of the acceptable workloads for operating and outpatient activity and assessment of the NHS and private surgical work carried out in the area. For general surgery and trauma and orthopaedics this equates to 1 consultant for 30,000 population. Emergency surgical services require the presence on site of all the core specialties, including sufficient fully staffed intensive-care, high-dependency and coronary care beds to ensure their availability for emergency admissions together with 24-hour-staffed dedicated emergency operating theatres.

Publication Types:  
Review  
Review, Tutorial

PMID: 11383422 [PubMed - indexed for MEDLINE]

99: Health Serv Manage Res  2001 May;14(2):92-103

Hospital re-admissions: an empirical analysis of quality management in Taiwan.

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This retrospective study uses discharge-level data to analyse and assess the situation of re-admissions within 15 days of discharge, for quality evaluation. The re-admission rate of the study period was 3.22%. Among those re-admission cases, 45.7% patients were re-admitted within five days of discharge, and 33.5% cases returned to hospital six to 10 days after discharge. The average length of stays of re-admissions (9.86 days for previous stay and 8.10 days for re-admitted stay) were both longer than the hospital's overall average (7.63 days) at the same period. Paediatric patients comprised the greatest number of re-admissions. Re-admissions were more likely to have higher percentage of emergency admission. Significant relationships were found between factors for re-admissions and patient characteristics (e.g. age and insurance status), admitted department, and diagnosis. Further investigation and strategies, combined with the application of severity adjustment technique to better monitor and avoid unnecessary re-admissions, need to be developed.

PMID: 11374000 [PubMed - indexed for MEDLINE]


Health care organization improvement reports using control charts for key quality characteristics: ORYX measures as examples.

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Some medical centers have developed quarterly quality performance reports consisting of key quality characteristics reported in the form of annotated control charts. The content of these reports needs to be linked with the mission, vision, values, and the structure of the organization. A partial example using one hospital's Joint Commission on Accreditation of Healthcare Organizations' ORYX measures is presented along with comments. The examples have been chosen to show the use of different types of control charts (XmR, P, and rare events) and different clinical conditions (congestive heart failure, low birth weight, and chronic obstructive pulmonary disease).

PMID: 11372501 [PubMed - indexed for MEDLINE]

101: Healthc Benchmarks 2001 May;8(5):49-52
Future of benchmarking: more data, more sharing, and better patient care.

Automated systems that provide whatever regulatory information is needed when it is needed; sharing of data to improve quality; data mined for specific groups of patients: Those are just a few of the trends predicted by health care experts asked to comment on the future of benchmarking and data strategies. Such improvements are needed; many hospitals continually run into problems when it comes to finding the right data sets for targeted patient groups.

PMID: 11372493 [PubMed - indexed for MEDLINE]

102: Qual Lett Healthc Lead 2001 Apr;13(4):12-3, 1

Health care consumers say they want to know more objective measures about quality.

Contrary to popular belief, average health care consumers are focused on more than just service quality and access to care when evaluating health care systems, hospitals, and providers. Instead, consumers are more likely to want objective measures of evidence-based care and clinical performance to help them better evaluate their health care providers, according to a new report, “Consumer Demand for Clinical Quality: The Giant Awakens,” from VHA, Inc.

PMID: 11330225 [PubMed - indexed for MEDLINE]

103: Rev Epidemiol Sante Publique 2001 Apr;49(2):183-92

[Early readmission as an indicator of hospital quality of care]

[Article in French]

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BACKGROUND: The purpose of this study was to assess early readmission as an indicator of quality of care, to estimate the frequency of avoidable emergency readmission in a French hospital, and then to describe the feasibility and contribution of routine use of this indicator. METHODS: A randomly selected sample of 469 readmissions within 30 days after a conventional hospitalization was chosen among the database of 40,242 hospitalizations during the first half of 1997. Two independent practitioners, whose true agreement was measured with a kappa test, studied the features of readmission recorded on the patient files,
classing them as "unforeseeable" or "potentially avoidable". Database criteria that could automatically class the readmission in either group were analyzed. RESULTS: There were 119 unforeseeable readmissions (25.4%). The two physicians agreed on the unforeseeable nature of 97 of these readmissions and 50 of them were judged avoidable. None of the database criteria allowed identifying all unforeseeable and avoidable readmissions. Readmission via the emergency unit was a sure indicator of unforeseeable readmission in 66% of the cases and of avoidable readmissions in 60%. The frequency of unforeseen readmissions was estimated at 3.9% of all conventional stays during the first half of 1997. The frequency of avoidable readmissions was 1.5%. CONCLUSIONS: Unforeseen early readmission can be an indicator of quality of the care taking process. It is however impossible to use the current database to classify with certainty readmissions as "unforeseeable" or "avoidable". Emergency unit readmission could offer a possible approach to measuring the frequency of unforeseen readmission. This ratio can provide caretakers with information concerning the quality of care and thus help in making decisions concerning reorganization for improvement.

Publication Types:
Validation Studies

PMID: 11319485 [PubMed - indexed for MEDLINE]


Patient satisfaction and research-related problems (Part 1). Problems while using a questionnaire and the possibility to solve them by using different methods of analysis.

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INTRODUCTION: This article comprises two parts describing a research project for validating quality monitoring tools. This is part 1. AIM: To examine the problems of patient satisfaction inquiries by means of the literature, earlier research and an example. BACKGROUND: The topic is of current interest, since quality management by way of research-based knowledge has become an increasingly common demand. In this context, patient satisfaction inquiries are a central method of data collection. Although the problems relating to the reliability of the methods and results of these inquiries have been identified, their comprehensive examination is yet to be done. Quality management is none the less a challenge to nursing administrators requiring a broad-based utilization of feedback data, and this calls for a critical examination of the reliability of these results. METHODS: The exemplary material were collected using a questionnaire from patients (n = 282) on three different hospital wards.
Different statistical methods and content analysis were used in the analysis. FINDINGS: The example used in the study indicates that the results of the inquiry were highly positive time after time. The reliability of the instrument presented a problem. The low amount of information collected in the open-ended question was another problem that can be criticised in relation to the amount of work required in the analysis. The results of the factor analysis showed that the questionnaire needs further development. CONCLUSIONS: To conclude, patient satisfaction inquiries yield a relatively small and limited amount of information on quality management and improvement, but this information is necessary specifically for ward sisters for the follow-up of long-term trends in patient satisfaction. The second part of this article (part 2) examines the description of patient satisfaction by means of triangulation.

Publication Types:
Validation Studies

PMID: 11309914 [PubMed - indexed for MEDLINE]


Adapting the HCUP QIs for hospital use: the experience in New York State.


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BACKGROUND: The Agency for Healthcare Research and Quality developed the Healthcare Cost and Utilization Project (HCUP) quality indicators (QIs) in 1994. The Healthcare Association of New York State (HANYS; Albany), which represents more than 500 nonprofit and public hospitals, long-term care facilities, and home health care agencies, has adapted the HCUP QIs since 1997 to produce annual comparative reports for its member hospitals. Specifically designed for internal use, the reports have been well received and have drawn interest from other hospital associations and state health departments. METHODS: The HCUP QIs were applied to the New York State hospital discharge abstract. A risk adjustment model was constructed for each complication measure. Measures of utilization and access to care were adjusted for differences in patient demographics and payer status by indirect standardization. Data are presented in graphic format. Each hospital receives its own report (in both paper copy and CD-ROM) with comparisons to statewide norms, regional averages, and peer group averages. Report prepared for hospital systems include data for each affiliated hospital. CONCLUSIONS: When used appropriately, the HCUP QIs provide valuable information for individual hospitals to assess quality of care and target potential areas for improvement. The HCUP QIs also give hospitals a broad perspective to look beyond their own institutions and develop community-based quality improvement initiatives. Nevertheless, given the limitations that commonly exist with administrative databases and the lack of standard risk adjustment systems, the
HCUP QIs are best used for internal purposes and not for public reporting.

PMID: 11293837 [PubMed - indexed for MEDLINE]


The dimensions of service quality for hospitals: development and use of the KQCAH scale.

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Using a combination of qualitative and quantitative research methodologies, this study identifies the dimensions of hospital service quality, operationalizes the dimensions, and develops an instrument to measure patient satisfaction. This instrument, the Key Quality Characteristics Assessment for Hospitals (KQCAH) scale, was developed using input from 12 hospital administrators, over 100 hospital employees, and 23 recent patients and family members.

Publication Types:
Validation Studies

PMID: 11293010 [PubMed - indexed for MEDLINE]


Service quality perceptions and patient satisfaction: a study of hospitals in a developing country.

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Patients'perceptions about health services seem to have been largely ignored by health care providers in developing countries. That such perceptions, especially about service quality, might shape confidence and subsequent behaviors with regard to choice and usage of the available health care facilities is reflected in the fact that many patients avoid the system or avail it only as a measure of last resort. Those who can afford it seek help in other countries, while preventive care or early detection simply falls by the wayside. Patients'voice must begin to play a greater role in the design of health care service delivery
processes in the developing countries. This study is, therefore, patient-centered and identifies the service quality factors that are important to patients; it also examines their links to patient satisfaction in the context of Bangladesh. A field survey was conducted. Evaluations were obtained from patients on several dimensions of perceived service quality including responsiveness, assurance, communication, discipline, and baksheesh. Using factor analysis and multiple regression, significant associations were found between the five dimensions and patient satisfaction. Implications and future research issues are discussed.

Publication Types: Evaluation Studies

PMID: 11286361 [PubMed - indexed for MEDLINE]


Commentary: applying hospital quality indicators to clinical practice.

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Hospitals use various methods to establish performance benchmarks. This may include cooperative data shared between organizations to allow broad, general comparisons. These can, however, be misinterpreted as representing standards of patient care. In the authors’ institution, a more complete examination was made of one of these quality indicators when it appeared quality indicator standards were in conflict with standards of patient care. The authors conclude that quality indicators are valuable when screening a hospital, just as we utilize screening tests to identify patients at potential risk. Neither should we apply broad quality indicators as standards of care without a full understanding of their strengths and weaknesses and the foundation on which they are built.

PMID: 11285655 [PubMed - indexed for MEDLINE]


Comment in:

Lessons learned while collecting ANA indicator data.

Jennings BM, Loan LA, DePaul D, Brosch LR, Hildreth P.
Realizing the importance of linking nursing's contribution to quality patient care, a pilot study was conducted to determine whether data regarding the quality indicators proposed by the American Nurses' Association (ANA) could be collected from five acute-care inpatient units at one medical center that is part of a multisite managed care system. Although it was determined that data regarding the ANA quality indicators could be collected at the study site, a variety of unanticipated findings emerged. These findings reflect both discrepancies and congruities between how the investigative team expected the ANA indicators to operate versus what was actually experienced. The lessons learned while collecting ANA indicator data are shared to assist future users and to advance the evolution of the ANA indicators.

PMID: 11263060 [PubMed - indexed for MEDLINE]

Present comparative data effectively.

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The Joint Commissions’ ORYX project is impacting the way hospital caregivers evaluate performance. Ten years ago, there were very little data from external groups that could be used for comparative purposes. Today, with all the different report card initiatives, such data are easier to find. Now quality managers are facing the challenge of sharing these data with administrative and medical staff leaders in a way that allows for accurate evaluation.

PMID: 11246793 [PubMed - indexed for MEDLINE]

111: Jt Comm J Qual Improv 2001 Mar;27(3):138-54
Developing indicators for emergency medical services (EMS) system evaluation and quality improvement: a statewide demonstration and planning project.

Sobo EJ, Andriese S, Stroup C, Morgan D, Kurtin P.

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BACKGROUND: The state of California, like every other state, has no system for assessing the quality of prehospital emergency medical services (EMS) care. As part of a statewide project, a process was designed for the evaluation and quality improvement (QI) of EMS in California. Local EMS agency (LEMSA) representatives made a commitment to submit data from both the providers and the hospitals they work with. INDICATOR SELECTION AND DEVELOPMENT: For conditions such as cardiac chest complaints, standardized indicators had already been developed, but for many other areas of interest there was either little literature or little consensus in the literature. Definitional differences were often linked to local-practice protocol differences. A related comparison challenge lay in the fact that care protocols may differ across systems. Some aspects of care may not be offered at all, which may reflect resource shortages or variable medical direction. DATA COLLECTION PROCEDURES: Each indicator was precisely defined, and definition sheets and data troubleshooting report forms were provided to participants in three data-collection rounds. Participants were given 1 month to collect the data, which consisted of summary-level elements (for example, average time to defibrillation for all patients 15 years or older who received defibrillation in 1998). Data were then aggregated, analyzed, and prepared for display in graphs and tables. ACCESS AND MEASUREMENT ISSUES: Numerous data collection problems were encountered. For example, not all participants could actually access data that they thought would be available. Linking data on patients as they travel through the continuum of EMS care (dispatch, field, hospital) and linking EMS data to hospital outcomes was also difficult. Yet even when data were easily available, challenges arose. The need for specificity, the potential misfit between definitions and the available data, and the challenges of data retrieval remained salient for the duration of the project and made cross-LEMSA and cross-provider comparison problematic. RECOMMENDATIONS AND LESSONS LEARNED: The project led to formal policy recommendations regarding development of a state-defined minimum data set of structure, process, and outcome indicators and their associated data elements; provision in the minimum data set for both local-level and statewide indicators; and provision of technical assistance at the local-providers level. EPILOGUE: Since the project's conclusion in June 2000, many regional and local EMS groups have begun to collect data on indicators. Many of the project's recommendations have been incorporated into the work plan of the state's System Review and Data Committee.

PMID: 11242720 [PubMed - indexed for MEDLINE]


Vital signs for your cardiovascular services.

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Current trends and "best practice" operating statistics can be vital to the success of today's cardiovascular programs. The findings from a recently published survey entitled, "Trends in Cardiovascular Programs: A National Benchmarking Study", provide the administrator with immediate and current knowledge of best ways to manage cardiovascular services to succeed in a competitive market. Study results provide some interesting and valuable information regarding non-invasive cardiology, cardiac catheterization, and peripheral vascular angiography program administration and provide insight into issues of cost, quality, and cardiovascular program concerns, interests and needs.

PMID: 11225209 [PubMed - indexed for MEDLINE]


Monitoring health reform: a report card approach.

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During the past several years, budget cuts have forced hospitals in several countries to change the way they deliver care. Gilson (Gilson, L. (1998). Discussion: In defence and pursuit of equity. Social Science & Medicine, 47(12), 1891-1896) has argued that, while health reforms are designed to improve efficiency, they have considerable potential to harm equity in the delivery of health care services. It is essential to monitor the impact of health reforms, not only to ensure the balance between equity and efficiency, but also to determine the effect of reforms on such things as access to care and the quality of care delivered. This paper proposes a framework for monitoring these and other indicators that may be affected by health care reform. Application of this framework is illustrated with data from Winnipeg, Manitoba, Canada. Despite the closure of almost 24% of the hospital beds in Winnipeg between 1992 and 1996, access to care and quality of care remained generally unchanged. Improvements in efficiency occurred without harming the equitable delivery of health care services. Given our increasing understanding of the weak links between health care and health, improving efficiency within the health care system may actually be a prerequisite for addressing equity issues in health.

Publication Types:
Evaluation Studies

PMID: 11218171 [PubMed - indexed for MEDLINE]
OBJECTIVE: This report describes the development, application, and exploratory evaluation of a clinical performance measure based on recently published schizophrenia guidelines for antipsychotic dose. DESIGN, SETTING, PARTICIPANTS: The performance measure, which assesses adherence to antipsychotic dose recommendations for acute schizophrenia treatment, was calculated at hospital discharge for 116 patients with schizophrenia who had participated in a 6-month outcomes study. MAIN OUTCOME MEASURE: The Brief Psychiatric Rating Scale (BPRS) was used to assess symptom severity at 6-month followup. RESULTS: At discharge, almost one-half of the patients were prescribed doses outside the recommended range. For the entire sample, linear regression models showed that the performance measure variable was not significantly associated with followup symptom severity (BPRS total scores). However, a significant association was observed for patients prescribed oral antipsychotics only (n = 69). Patients prescribed recommended doses had lower adjusted mean BPRS totals than patients prescribed doses either greater than (P < 0.05) or less than (P < 0.05) recommended. CONCLUSIONS: Our findings suggest that the antipsychotic dose performance measure may be useful for monitoring quality. It assesses a modifiable aspect of care for which clinical improvement is needed, and such improvement is likely to improve patient outcomes. Future research is needed to confirm our findings and to develop and test interventions to improve the quality of care for schizophrenia that incorporate this clinical performance measure.

PMID: 11202601 [PubMed - indexed for MEDLINE]
Health care workers are increasingly asked to disclose the achievements and failures of their medical interventions. Comparative evaluation of hospitals seems to be inevitable. In July 2000 about 6000 health care workers in the Netherlands received a questionnaire from the general lay weekly Elsevier asking them to grade the hospitals in their area: specialists, general practitioners, heads of departments in hospitals, nursing staff and hospital directors. The questionnaire has serious methodological flaws, e.g. regarding the items included (such as 'press sensitivity' and 'waiting lists'), the way in which the score was determined (hospitals that were scored by less than 14 respondents were excluded), the way the questions were formulated (there was no way respondents could indicate their level of experience with the hospitals involved) and the very low response rate (13%). In addition there were no data to determine the accuracy of the questionnaire, the distribution of the respondents, or whether the answers had been adjusted. The questionnaire appears to be primarily aimed at creating sensation. It received little attention in the health care sector, probably because the results were contrary to the expectations. Hospital care will undoubtedly benefit from surveys applying a limited number of well-designed indicators for quality of service, but a questionable public qualification based on a competitive model such as the Elsevier questionnaire will probably do more harm than good.

PMID: 11191787 [PubMed - indexed for MEDLINE]


Comparison of clinical indicators for performance measurement of health care quality: a cautionary note.

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The use of clinical performance data is increasing rapidly. Yet, substantial variation exists across indicators designed to measure the same clinical event. We compared indicators from several indicator measurement systems to determine the consistency of results. Five measurement systems with well-defined indicators were selected. They were applied to 24 hospitals. Indicators for mortality from coronary artery bypass graft surgery and mortality in the perioperative period were chosen from these measurement systems. Analyses results and concludes that it is faulty to assume that clinical indicators derived from different measurement systems will give the same rank order. Widespread demand for external release of outcome data from hospitals must be balanced by an educational effort about the factors that influence and
potentially confound reported rates.

Publication Types:
Validation Studies

PMID: 11189082 [PubMed - indexed for MEDLINE]


DesHarnais SI, Forthman MT, Homa-Lowry JM, Wooster LD.
Delta Group, Inc., Greenville, South Carolina, USA.

This article describes a risk-adjusted approach for profiling hospitals and physicians on clinical quality indicators using readily available administrative data. By comparing risk-adjusted rates of mortality, complications, and readmissions to peers, national norms, and benchmarks, this approach enables purchasers and providers to identify both favorable and adverse outcomes performance.

PMID: 11185878 [PubMed - indexed for MEDLINE]


New pain management standards: 4 questions surveyors are asking.

New standards for pain management from the Oakbrook Terrace, IL-based Joint Commission on Accreditation of Healthcare Organizations will be scored for compliance in 2001. Surveyors are already asking ED managers about plans to comply with the standards. Every patient needs to be assessed for pain, treated if necessary, and reassessed. You need to assess pain differently for children, the elderly, and developmentally disabled individuals.

PMID: 11184322 [PubMed - indexed for MEDLINE]


Use ORYX to achieve your quality improvement goals.

No one ever said ORYX was a popular program, but there are some positive effects
emerging from all those measures. ORYX allows outcomes to be compared across community lines, letting hospitals' strengths and weaknesses act as examples for other hospitals using the same comparison data. Once a problem is identified (e.g., surgery hematoma and hemorrhage in one hospital) and brought to the attention of physicians and administrators, the main players can come together to work out solutions.

PMID: 11184107 [PubMed - indexed for MEDLINE]


New ORYX measures mean more work for you.

The Joint Commission's Board of Commissioners has approved 25 new core performance measures. Some of the measures are already used by peer review organizations that contract with HCFA, so you won't have to reinvent the wheel. The bad news is that they're process-level measures, making data more difficult to collect.

PMID: 11184087 [PubMed - indexed for MEDLINE]


Using clinical indicators to identify areas for quality improvement.

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Clinical indicators (CI) are increasingly being used to assess the quality of health care being provided by physicians and hospitals. However, a standardised reporting format and a methodology to assess the utility of the CI data has not been developed. This paper provides the reporting format that has been developed for the clinical colleges. The results for four surgical indicators are used to illustrate how the CI data can determine the potential to improve the quality of care. Numerical estimates of the potential gains that could be made are calculated by: (i) determining the outcome if the current mean rate was shifted to the rate for the best 20% of hospitals and (ii) identifying units with unusual variation in rates and shifting their rate to the average. All four indicators reveal gains that could impact on health policy and clinical practice.

PMID: 11207951 [PubMed - indexed for MEDLINE]
Hospitalization rates as indicators of access to primary care.

Ricketts TC, Randolph R, Howard HA, Pathman D, Carey T.

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Variations in hospitalization rates for selected conditions are being used as indicators of the effectiveness of primary care in small areas. Are these rates actually sensitive to problems in local primary care systems? This study examines the relationship between ambulatory care sensitive condition (ACSC) hospital admission rates and primary care resources and the economic conditions in primary care market areas in North Carolina in 1994. The data show a high degree of correlation between the rates and income but not primary care resources. The distribution of rates did agree with expert assessments of the location of places with poor access to health services. The data confirm that access to effective primary care reflected in lower rates of ACSC admissions is a function of more than the professional resources available in a market area. The solution to reducing disparities in health status may not lie within the health system.

PMID: 11165153 [PubMed - indexed for MEDLINE]

Measuring performance. Green with envy?

Deeming C, Appleby J.

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The traffic-light system proposed in the NHS plan attempts to measure performance in absolute and relative terms. Using methodology likely to be employed by the Department of Health, it has been possible to draw up a league table of health authorities. The table appears to show a North-South divide. There is an argument for adjusting rankings to reflect the relative difficulties HAs face.

PMID: 11142064 [PubMed - indexed for MEDLINE]
Outpatient utilization patterns and quality outcomes after first acute episode of mental health hospitalization. Is some better than none, and is more service associated with better outcomes?

Huff ED.

Access to outpatient services within the first 30 days after an inpatient mental health episode may influence relapse risk. A retrospective cohort of 3,755 adult Medicaid mental health inpatients discharged from their first managed care acute episode of care from July 1, 1996, through May 20, 1998, were studied. Results showed patients' utilization of any psychotherapy (OR = .43), medication management (OR = .41), or diagnostic evaluation services (OR = .61), relative to no utilization, was associated with significantly lower 30-day readmission rates, and longer times in remission. However, patients receiving above the median total number of ambulatory services, or having contact with more providers showed significantly greater likelihood of 30-day readmission, and shorter time in remission. Findings heighten the need for the availability of timely risk-reducing mental health outpatient services, the continuity and risk of fragmentation of therapeutic relationships, as well as crisis planning before an inpatient discharge.

PMID: 11139870 [PubMed - indexed for MEDLINE]

The ORYX initiative: goals and potential application to physician quality improvement efforts.

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Demands for public accountability in health care are more widespread today than at any time in the past. A number of national performance measurement efforts, including the ORYX initiative of the Joint Commission on Accreditation of Healthcare Organizations, represent an effort to provide stakeholders with the data they need to make judgments about the quality of health care provided to the public. The underlying premise of performance measurement is that organizations and clinicians can only improve what they can measure. Clinicians are the natural leaders in effecting broad-based change because of their direct influence on patient care and the respect they command in the health care environment. As performance measurement initiatives evolve, the ability of health care organizations to implement empirically based, structured improvement
will increase and become commonplace.

PMID: 11070741 [PubMed - indexed for MEDLINE]


Patient safety in America: comparison and analysis of national and Texas patient safety research.

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The Institute of Medicine (IOM) report on patient safety in late 1999, To Err is Human, attracted great national attention when it announced that 44,000 to 98,000 patients die each year in American hospitals because of patient safety problems and that a patient safety crisis exists in American health care and American hospitals. The report relied heavily on a Harvard group's study of hospital care in New York in 1984 and another Harvard group's study of hospital care in Utah and Colorado in 1992. This article reviews and compares American hospital inpatient safety research and corresponding Texas hospital patient safety research. It focuses on the major patient safety research of the last two decades that led to the IOM report, and compares information from the major studies with the work of the Texas Medical Foundation (TMF). The Harvard patient safety studies that have received great national attention are compared here with a stronger, broader, and more robust database from TMF, the peer review organization for Texas. The TMF studies of 300,000 patient admissions during 3 years in more than 400 hospitals are compared with the Harvard studies of 30,000 charts in 51 hospitals in New York in 1984 and 15,000 charts in 28 hospitals in Utah and Colorado in 1992. The TMF data and a close look at the Harvard data show a positive patient safety picture that has been ignored too often in the current debate, with low rates of significant injury and death caused by any medical care or hospital care safety or negligence problems.

Publication Types:
Review
Review, Tutorial

PMID: 11070738 [PubMed - indexed for MEDLINE]


Efficiency. Measured response.

Hollingsworth B, Maniadakis N, Thanassoulis E.
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An analysis of the activity of 75 acute hospitals over the period 1991-96 using data envelopment analysis shows that, while overall productivity increased, the efficiency of individual hospitals did not. A small decrease in the efficiency of individual hospitals was found in the last four years studied. An analysis of quality of care over the same period suggests that gains in volume of services may have been at the expense of quality of care. The results suggest that incentives for increasing hospital efficiency have a one-off impact rather than a sustained effect.

PMID: 11067478 [PubMed - indexed for MEDLINE]

The role of quality measurement in a competitive marketplace.

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Quality measurement is not a new idea. However, in recent years, several new trends have gained prominence: greater interest in publicly reported information on quality of care, access to care, and patient satisfaction; an increased focus on health plans and integrated systems of care rather than on institutional providers and practitioners as the unit of observation; wide adoption of the techniques of continuous quality improvement within the health care sector; increased use of clinical practice guidelines to improve care for a broad range of medical conditions; incorporation of computer technology into the clinical setting; and greater appreciation for health outcomes as a measure of quality of care. This chapter first reviews the changes in the medical landscape that have seeded these trends and the distinction between quality assurance and quality improvement. It then focuses on public policy concerns, in particular on the emergence of publicly disseminated information about quality of care, now often called "quality report cards." The major prototypes of these reports developed to date, the responses to quality reporting by different members of the delivery system, and the major criticisms of this approach are reviewed. The chapter concludes by predicting probable developments and the strategies most likely to move health care forward in a productive direction.

PMID: 11066261 [PubMed - indexed for MEDLINE]

129: Aust Health Rev 2000;23(2):96-112
WESTCOP: a disease management approach to coronary artery disease.

Scott I, Harper C, Clough A, West M.

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Disease management is a systematic approach to improving care of populations of patients with specific clinical conditions. Critical to success are the formation of collaborative teams of health care stakeholders, development and promulgation of clinical practice guidelines, and performance measurement and feedback to providers as a process of continuous practice improvement. This article describes a disease management program for patients with coronary artery disease in a provincial health district with a population of 180,000. It discusses the rationale and methods behind the operationalisation of the main program elements, benefits achieved to date and challenges confronted.

PMID: 11010583 [PubMed - indexed for MEDLINE]

130: Aust Health Rev 2000;23(2):169-76

Improving clinical indicators in acute admissions to the Department of Geriatric Medicine, Royal Perth Hospital.

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Clinical indicators are an important component of quality assessment of clinical services. We outline the strategies used in the department of Geriatric Medicine at Royal Perth Hospital (RPH) to report on and improve the results. The clinical indicator for assessment of cognitive function had improved from 19% in September 1998 to 64% in February 1999. The clinical indicator for assessment of physical function has been maintained at 80%. There have been revisions to the definitions of the clinical indicators for 1999. The current clinical indicators used in this department can be modified for comparison nationwide amongst geriatric units.

PMID: 11010569 [PubMed - indexed for MEDLINE]

131: Health Mark Q 1999;17(2):1-6

How consumers evaluate health care quality: Part III.

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This article is the third and final article in a series which examines the way in which consumers assess information regarding the quality of health care services. The previous article focused on consumers' perceptions of health care plans and health insurance companies. This article examines the views of health care consumers regarding hospitals and doctors.

PMID: 11010207 [PubMed - indexed for MEDLINE]

132: Tidsskr Nor Laegeforen 2000 Aug 10;120(18):2144-7

[Relapse as quality indicator in psychiatric treatment]

[Article in Norwegian]

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BACKGROUND: Efficiency and productivity expressed by length of hospitalisation, number of admissions, treated patients per time unit, and cost in NOK are incomplete measures for quality in a medical context. These measures should be supplemented by measures of results based on the course of illness for specific diagnostic categories. Few psychiatric institutions, including outpatient units, record the course of illness on a regular basis. MATERIAL AND METHODS: A review of the literature shows that rough measures of results, for instance readmission rates, often form the basis for evaluation of course/treatment results. The article gives examples of measures like readmission rates and more scientific measures such as Positive and negative syndrome scale (PANSS) used to measure results in a Norwegian psychiatric hospital. RESULTS: Of all first time admitted patients to Rogaland Psychiatric Hospital in 1985 and 1990, 40% of patients diagnosed with schizophrenia were readmitted after one year. For first time admitted patients from 1993 and 1994, the remission rate was 56% measured by PANSS. INTERPRETATION: The results of the treatment of first time admitted patients with a schizophrenia diagnosis were poorer than what is suggested possible through studies of optimal treatment, where the remission percentage is estimated to be 80% after one year. Rough measures of results, like readmission, do not seem to differ considerably from the results measured by PANSS. Norwegian psychiatric institutes are recommended to monitor the quality of treatment through a systematic recording of relapse among patients with a first time schizophrenia diagnosis.

Publication Types:
Review
Review, Tutorial
Impact of quality improvement activities on care for acute myocardial infarction.

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OBJECTIVE: To examine the relationship between quality improvement activities reported to a peer review organization (PRO) and improvements in quality of care for patients with acute myocardial infarction (AMI). DESIGN: Time-series, comparative study of changes in care for AMI patients from 1992 to 1995 in hospitals reporting self-measurement or system changes compared to all other hospitals in the state. SETTING: One-hundred and seventeen acute care hospitals in Iowa. STUDY PARTICIPANTS: Patients hospitalized with a principal diagnosis of AMI. INTERVENTIONS: Each hospital was given hospital-specific performance data, statewide aggregate data, and peer comparisons and was asked to provide the PRO with a plan to improve care for AMI patients. MEASUREMENTS: Chart audits were performed before and after the intervention. Quality of care was based on eight explicit process measures of the quality of AMI care (quality indicators).

RESULTS: Statewide, quality of care improved on five out of eight quality indicators. Of the 117 hospitals, 44 (38%) reported that they had implemented their own measurement activities or systematic improvements. These 44 hospitals showed significantly greater improvements than the other hospitals in use of aspirin during the hospitalization, recommendations for aspirin at discharge, and prescriptions for beta blockers at discharge. CONCLUSIONS: While quality of care for AMI patients throughout Iowa is improving, the pace of improvement is greatest in hospitals reporting that they are measuring their own performance or implementing systematic changes in care processes. Continued efforts to encourage hospitals to implement these types of improvement activities are warranted.

Publication Types:
Clinical Trial
Controlled Clinical Trial
Multicenter Study

PMID: 10985268 [PubMed - indexed for MEDLINE]
Computerized monitoring of valproate and physician responsiveness to laboratory studies as a quality indicator.

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Using computerized pharmacy, laboratory, and hospitalization data from a large state psychiatric hospital system, this study examined physician responses to laboratory studies obtained in the course of therapeutic drug monitoring. Computerized monitoring modules based on physician-developed guidelines identified out-of-range laboratory values and searched for appropriate corresponding physician responses within clinically driven, mathematically adjusted time frames. Valproate monitoring in four metropolitan hospitals showed that appropriate physician responses were associated with shorter hospital stays for patients and were predictive of length of stay in a multiple regression analysis (p<.001). After physicians received didactic feedback, the percentage of appropriate responses to low serum valproate levels increased.

PMID: 10970925 [PubMed - indexed for MEDLINE]


[Indicators of continuous improvement of the transfer of neonatal emergency cases in the Trento province]

[Article in Italian]

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Unita Operativa di Neonatologia e Terapia Intensiva Neonatale, Ospedale S. Chiara Trento.

The nursing personnel of the Neonatology Unit of Trento Hospital cares for the transportation of newborns in the Trento Province (more than 7500 transportations have been performed to date). Aim of the study is the evaluation of the quality of care as documented in the ad hoc neonatal transportation data-bank. A further goal is the formulation and validation of simple and easy to collect indicators of "improvement of care". Examples of indicators used to assess the activities of the years 1996 and 1997 were the number of transportations with functioning equipment; the number of newborns with body temperature registered; the number of transportation cards correctly filled out. These simple indicators allowed to identify areas where the quality of care could be improved. The cause-effect diagram used allowed the involvement of all the nursing personnel in the identification of problems and of possible solutions. An example of the process followed for identifying and preventing
hypothermia is presented and discussed.

PMID: 10969552 [PubMed - indexed for MEDLINE]

136: Med Care 2000 Aug;38(8):868-76

Does clinical evidence support ICD-9-CM diagnosis coding of complications?


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BACKGROUND: Hospital discharge diagnoses, coded by use of the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), increasingly determine reimbursement and support quality monitoring. Prior studies of coding validity have investigated whether coding guidelines were met, not whether the clinical condition was actually present. OBJECTIVE: To determine whether clinical evidence in medical records confirms selected ICD-9-CM discharge diagnoses coded by hospitals. RESEARCH DESIGN AND SUBJECTS: Retrospective record review of 485 randomly sampled 1994 hospitalizations of elderly Medicare beneficiaries in California and Connecticut. MAIN OUTCOME MEASURE: Proportion of patients with specified ICD-9-CM codes representing potential complications who had clinical evidence confirming the coded condition. RESULTS: Clinical evidence supported most postoperative acute myocardial infarction diagnoses, but fewer than 60% of other diagnoses had confirmatory clinical evidence by explicit clinical criteria; 30% of medical and 19% of surgical patients lacked objective confirmatory evidence in the medical record. Across 11 surgical and 2 medical complications, objective clinical criteria or physicians' notes supported the coded diagnosis in >90% of patients for 2 complications, 80% to 90% of patients for 4 complications, 70% to <80% of patients for 5 complications, and <70% for 2 complications. For some complications (postoperative pneumonia, aspiration pneumonia, and hemorrhage or hematoma), a large fraction of patients had only a physician's note reporting the complication. CONCLUSIONS: Our findings raise questions about whether the clinical conditions represented by ICD-9-CM codes used by the Complications Screening Program were in fact always present. These findings highlight concerns about the clinical validity of using ICD-9-CM codes for quality monitoring.

PMID: 10929998 [PubMed - indexed for MEDLINE]

Prediction rules for complications in coronary bypass surgery: a comparison and methodological critique.

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BACKGROUND: Clinical prediction rules have been developed that use preoperative information to stratify patients according to risk of complications after cardiac surgery. OBJECTIVES: To assess the methodological standards and performance of 7 models. PARTICIPANTS: The validation portion of the Quality Measurement and Management Initiative (QMMI) cohort included a random sample of all adult patients (n = 3,261) who underwent coronary artery bypass grafting (CABG) surgery not involving valvular or other concomitant procedures at 12 medical centers from August 1993 to October 1995. OUTCOME MEASURES: Methodological standards used for model comparison were adapted from published criteria. Model performance was assessed by receiver-operating characteristic (ROC) analysis, and calibration was evaluated with the Hosmer-Lemeshow (HL) statistic and observed-expected plots. METHODS: We performed cross-validation by applying the published criteria for the development of each model to the validation subset of the QMMI cohort and by assessing the performance of each model in discriminating outcomes. RESULTS: Wide variations existed in the methodologies used to develop and validate the 5 additive scores evaluated. Cross-validation of all 5 additive scores revealed degradation in their abilities to discriminate outcomes. The 2 logistic models examined performed similarly to the additive scores examined in predicting mortality. CONCLUSIONS: Substantial variation existed both in the methodologies used to develop models and in the ability of the models to predict outcomes. Models developed at single institutions or using fewer patients may be less generalizable when applied to diverse clinical settings. Additive and logistic regression models performed similarly, as assessed by ROC and HL analyses.

PMID: 10929994 [PubMed - indexed for MEDLINE]

138: Med Care 2000 Aug;38(8):796-806

Use of administrative data to find substandard care: validation of the complications screening program.


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OBJECTIVE: The use of administrative data to identify inpatient complications is technically feasible and inexpensive but unproven as a quality measure. Our objective was to validate whether a screening method that uses data from standard hospital discharge abstracts identifies complications of care and potential quality problems. DESIGN: This was a case-control study with structured implicit physician reviews. SETTING: Acute-care hospitals in California and Connecticut in 1994. PATIENTS: The study included 1,025 Medicare beneficiaries greater than 265 years of age. METHODS: Using administrative data, we stratified acute-care hospitals by observed-to-expected complication rates and randomly selected hospitals within each state. We randomly selected cases flagged with 1 of 17 surgical complications and 6 medical complications. We randomly selected controls from unflagged cases. MAIN OUTCOME MEASURE: Peer-review organization physicians' judgments about the presence of the flagged complication and potential quality-of-care problems. RESULTS: Physicians confirmed flagged complications in 68.4% of surgical and 27.2% of medical cases. They identified potential quality problems in 29.5% of flagged surgical and 15.7% of medical cases but in only 2.1% of surgical and medical controls. The rate of physician-identified potential quality problems among flagged cases exceeded 25% in 9 surgical screens and 1 medical screen. Reviewers noted several potentially mitigating circumstances that affected their judgments about quality, including factors related to the patients' illness, the complexity of the case, and technical difficulties that clinicians encountered. CONCLUSIONS: For some types of complications, screening administrative data may offer an efficient approach for identifying potentially problematic cases for physician review. Understanding the basis for physicians' judgments about quality requires more investigation.

PMID: 10929992 [PubMed - indexed for MEDLINE]

139: Med Care 2000 Aug;38(8):785-95

Identification of in-hospital complications from claims data. Is it valid?

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OBJECTIVES: This study examined the validity of the Complications Screening Program (CSP) by testing whether (1) ICD-9-CM codes used to identify a complication are coded completely and accurately and (2) the CSP algorithm successfully separates conditions present on admission from those occurring in the hospital. METHODS: We compared diagnosis and procedure codes contained in the Medicare claim with codes abstracted from an independent re-review of more than 1,200 medical records from Connecticut and California. RESULTS: Eighty-nine percent of the surgical cases and 84% of the medical cases had their CSP trigger
codes corroborated by re-review of the medical record. For 13% of the surgical cases and 58% of the medical cases, the condition represented by the code was judged to be present on admission rather than occurring in-hospital. The positive predictive value of the claim was greater than 80% for the surgical risk pool, suggesting the value of the CSP as a screening tool. CONCLUSIONS: The CSP has validity as a screen for most surgical complications but only for 1 medical complication. The CSP does not have validity as a "stand-alone" tool to identify more than a few in-hospital surgery-related events. The addition of an indicator to the Medicare claim to capture the timing of secondary diagnoses would improve the validity of the CSP for identifying both surgical and medical in-hospital events.

PMID: 10929991 [PubMed - indexed for MEDLINE]


Clinical indicators in accreditation: an effective stimulus to improve patient care.

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The Australian Council on Healthcare Standards (ACHS) established the Care Evaluation Program (CEP) of clinical performance measures in its accreditation program to increase the clinical component of that program and to increase medical practitioner involvement in formal quality activities in their health care organizations. From the introduction of a set of generic indicators in 1993 the program expanded through all of the various medical disciplines and from January 2000 there will be 18 sets (well over 200 indicators) in the program. More than half of Australia's acute hospitals (covering the majority of patient separations) are monitoring the indicators and reporting clinical data twice yearly to the ACHS. In turn they receive a 6-monthly feedback of aggregate and peer comparative results. The ACHS policy had no specific requirement for a set number of indicators to be monitored and it was not mandatory to achieve any specific data threshold to be accredited. However, where an organization's results differed unfavorably from those of its peers some action was expected. Qualitative information is also sent to the CEP and this has enabled a determination of the effectiveness of the indicators. There is documented evidence of improved management and numerous examples of improved patient outcomes. The program remains unique in the scope of the medical disciplines covered and in the formal provider involvement with indicator development. Both the clinical component of accreditation and clinician involvement in quality activities have been increased in an educational process. However, not all of the indicators are of equal value and a reduction in the number of indicators to a 'core' group of the most reliable and responsive ones is in process.
Due to legal regulations, external quality assurance is mandatory in Germany. Supported by the German Health Ministry (BMG), we present the results of a multicenter study in four hospitals with different structures on 1042 inpatients with the tracer diagnosis of schizophrenia (ICD 10). We defined disease-specific indicators of structure, process, and outcome quality, developed an assessment instrument, and implemented a feedback system for quality comparison. The resulting quality profiles are useful as a starting point for internal quality management.

Eye examinations for VA patients with diabetes: standardizing performance measures.

Jones D, Hendricks A, Comstock C, Rosen A, Chang BH, Rothendler J, Hankin C, Prashker M.

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OBJECTIVE: To demonstrate the potential of the Health Plan Employer Data and Information Set (HEDIS) for the calculation of a performance measure for eye exams in the diabetic population using Veterans Health Administration (VA) administrative data. DESIGN: We calculated a 1-year HEDIS-defined patient denominator and three alternative denominators that considered coding factors in identifying a VA patient as diabetic. We calculated the HEDIS-defined numerator, along with alternative specifications that captured other types of eye exams. Finally, we supplemented national data with VA pharmacy and Medicare claims data to identify all VA diabetic patients at 14 selected VA facilities and to establish a more accurate picture of non-VA health care utilization. RESULTS: The national average annual HEDIS-defined eye exam rate in the VA was 26% in fiscal 1997 compared with 39% for managed care organizations. Medicare utilization raised this by 15 percentage points at 14 northeastern VA hospitals. Over 2 years, at least two-thirds of diabetic VA patients had some type of eye exam through VA or Medicare. CONCLUSION: A HEDIS measure of eye exams for VA patients with diabetes can be calculated using VA administrative data only. However, the question remains to what extent the denominator and numerator accurately and completely identify all diabetic patients using VA services and all appropriate eye exams. We recommend caution in interpreting the results of performance measurement across different health care sectors based on what we currently know are data system limitations.

PMID: 10830666 [PubMed - indexed for MEDLINE]

143: Int J Qual Health Care 2000 Apr;12(2):89-95

Quality and continuity of care in Dutch nurse clinics for people with rheumatic diseases.

Temmink D, Hutten JB, Francke AL, Abu-Saad HH, van der Zee J.

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OBJECTIVE: Recently a new form of nurse clinic for people with rheumatic diseases has been introduced into Dutch health care. This study gives insight into: (i) patients' perceptions about the quality and continuity of care given at these (transmural) nurse clinics; and (ii) specialized rheumatology nurses' and rheumatologists' perceptions about the quality and continuity of care in the clinics. DESIGN: Validated measurement tools (QUOTE and QCC) were used, before and after patients visited a clinic, to determine patient perceptions about the quality and continuity of care. Semi-structured interviews with professionals were used to gather information about their perceptions. SETTING: The study was carried out at five locations in The Netherlands where a home care organization and a general hospital collaborated closely and had joint responsibility for a transmural rheumatology nurse clinic. STUDY PARTICIPANTS: A total of 128 patients, six specialist rheumatology nurses and four rheumatologists. INTERVENTION: Transmural nurse clinics for people with rheumatic diseases.
RESULTS: In general, patients were positive about the quality and continuity of care given at the clinics. Some continuity aspects, like the presence of a locum nurse and providing the locum with sufficient information could be improved. Professionals were positive about the information given at the clinics, which is additional to the information given by a rheumatologist. Professionals were less positive about some of the clinics’ preconditions. CONCLUSION: In this study, a control group (e.g. patients who received standard rheumatologist care) was not available. However, in comparison with patients’ experiences of standard medical care in other (comparable) research, patients’ experiences in this study were very positive. It was concluded that Dutch transmural nurse clinics, to a large extent, meet patients' and professionals' expectations and were a positive development in the care of rheumatic patients.

PMID: 10830665 [PubMed - indexed for MEDLINE]

144: Arch Intern Med 2000 Apr 24;160(8):1074-81

Hospital readmissions as a measure of quality of health care: advantages and limitations.

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We reviewed the recent literature on hospital readmissions and found that most of them are believed to be caused by patient frailty and progression of chronic disease. However, from 9% to 48% of all readmissions have been judged to be preventable because they were associated with indicators of substandard care during the index hospitalization, such as poor resolution of the main problem, unstable therapy at discharge, and inadequate postdischarge care. Furthermore, randomized prospective trials have shown that 12% to 75% of all readmissions can be prevented by patient education, predischARGE assessment, and domiciliary aftercare. We conclude that most readmissions seem to be caused by unmodifiable causes, and that, pending an agreed-on method to adjust for confounders, global readmission rates are not a useful indicator of quality of care. However, high readmission rates of patients with defined conditions, such as diabetes and bronchial asthma, may identify quality-of-care problems. A focus on the specific needs of such patients may lead to the creation of more responsive health care systems for the chronically ill.

Publication Types:
Meta-Analysis

PMID: 10789599 [PubMed - indexed for MEDLINE]
The public release of performance data: what do we expect to gain? A review of the evidence.

Marshall MN, Shekelle PG, Leatherman S, Brook RH.

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CONTEXT: Information about the performance of hospitals, health professionals, and health care organizations has been made public in the United States for more than a decade. The expected gains of public disclosure have not been made clear, and both the benefits and potential risks have received minimal empirical investigation. OBJECTIVE: To summarize the empirical evidence concerning public disclosure of performance data, relate the results to the potential gains, and identify areas requiring further research. DATA SOURCES: A literature search was conducted on MEDLINE and EMBASE databases for articles published between January 1986 and October 1999 in peer-reviewed journals. Review of citations, public documents, and expert advice was conducted to identify studies not found in the electronic databases. STUDY SELECTION: Descriptive, observational, or experimental evaluations of US reporting systems were selected for inclusion. DATA EXTRACTION: Included studies were organized based on use of public data by consumers, purchasers, physicians, and hospitals; impact on quality of care outcomes; and costs. DATA SYNTHESIS: Seven US reporting systems have been the subject of published empirical evaluations. Descriptive and observational methods predominate. Consumers and purchasers rarely search out the information and do not understand or trust it; it has a small, although increasing, impact on their decision making. Physicians are skeptical about such data and only a small proportion makes use of it. Hospitals appear to be most responsive to the data. In a limited number of studies, the publication of performance data has been associated with an improvement in health outcomes. CONCLUSIONS: There are several potential gains from the public disclosure of performance data, but use of the information by provider organizations for quality improvement may be the most productive area for further research.

PMID: 10770149 [PubMed - indexed for MEDLINE]
The purpose of this study was to compare indicators of process and outcome of midwifery services provided in the Quebec pilot projects to those associated with standard hospital-based medical services. Women receiving each type of care (961 per group) were matched on the basis of socio-demographic characteristics and level of obstetrical risk. We found midwifery care to be associated with less obstetrical intervention and a reduction in selected indicators of maternal morbidity (caesarean section and severe perineal injury). For neonatal outcome indicators, midwifery care was associated with a mixture of benefits and risks: fewer babies with preterm birth and low birthweight, but a trend toward a higher stillbirth ratio and more frequent requirement for neonatal resuscitation. The study design does not permit to conclude that the associations were causal in nature. However, the high stillbirth rate observed in the group of women who were selected for midwife care raises concerns both regarding the appropriateness of the screening procedures for admission to such care and regarding the quality of care itself.

PMID: 10765581 [PubMed - indexed for MEDLINE]
30-day SMRs was substantial (R = 0.78, p < .001), outlier status changed for seven of the 30 hospitals. Nonetheless, changes in outlier status reflected relatively small differences between in-hospital and 30-day SMRs. Rates of discharge to nursing homes or other inpatient facilities varied from 5.4 percent to 34.2 percent across hospitals. However, relationships between discharge rates to such facilities and in-hospital SMRs (R = 0.08; p = .65) and early post-discharge mortality rates (R = 0.23; p = .21) were not significant.

CONCLUSIONS: SMRs based on in-hospital and 30-day mortality were relatively similar, although classification of hospitals as statistical outliers often differed. However, there was no evidence that in-hospital SMRs were biased by differences in post-discharge mortality or discharge practices.

PMID: 10737447 [PubMed - indexed for MEDLINE]


[Postoperative wound infections: a useful indicator of quality of care?]

[Article in Dutch]

Casparie AF.

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An indicator can be defined as a measurable element of care that gives an impression of the quality of care. It can be used for screening on potential quality problems, for monitoring of well-defined processes and for a check after the introduction of quality improvement activities. Although the notion of an indicator appears to be an attractive concept in quality management, some questions have to be answered before a specific indicator can be used. The first question regards the validity of the indicator: to what extent does the indicator reflect the quality of the care? Next is the question of registration: can the indicator be measured in a valid and reliable way? The third question is whether appropriate activities will be initiated after the indicator has given a signal. Postoperative wound infections appears to be a valid outcome indicator because of the relationship between process of care (infection prevention policy) and outcome of care (the number of infections). The weak point lies in the reliability of the registration of wound infections.

Publication Types:
Review
Review, Tutorial

PMID: 10726153 [PubMed - indexed for MEDLINE]
The use of unlicensed assistive personnel and selected outcome indications.

Badovinac CC, Wilson S, Woodhouse D.

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This pilot study examine the satisfaction levels of patients, RNs, and UAPs after implementing a patient care delivery system using UAPs as nurse extenders on a 41-bed short-stay medical-surgical observation unit. It also compared patient fall statistics prior to and after implementing the new care model. The convenience study sample included 40 patients, 15 RNs, and 9 UAPs and covered 2 months of unit experience in mid 1997. Risk management statistics from a comparable period 2 years prior showed no significant difference in the number of patient falls. Patient satisfaction scores on five of the seven regularly collected questions was higher in 1997 than the comparable earlier period. RN satisfaction with the care model using UAPs was above a neutral score of 3 on a 5-point Likert scale on two out of three items, but additional attention to the RN's role in effective delegation to UAPs was needed.

PMID: 10711162 [PubMed - indexed for MEDLINE]

SELECTIVE REFERRAL TO HIGH-VOLUME HOSPITALS: ESTIMATING POTENTIALLY AVOIDABLE DEATHS.

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CONTEXT: Evidence exists that high-volume hospitals (HVHs) have lower mortality rates than low-volume hospitals (LVHs) for certain conditions. However, few employers, health plans, or government programs have attempted to increase the number of patients referred to HVHs. OBJECTIVES: To determine the difference in hospital mortality between HVHs and LVHs for conditions for which good quality data exist and to estimate how many deaths potentially would be avoided in California by referral to HVHs. DESIGN, SETTING, AND PATIENTS: Literature in MEDLINE, Current Contents, and First-Search Social Abstracts databases from January 1, 1983, to December 31, 1998, was searched using the key words
hospital, outcome, mortality, volume, risk, and quality. The highest-quality study assessing the mortality-volume relationship for each given condition was identified and used to calculate odds ratios (ORs) for in-hospital mortality for LVHs vs HVHs. These ORs were then applied to the 1997 California database of hospital discharges maintained by the California Office of Statewide Health Planning and Development to estimate potentially avoidable deaths. MAIN OUTCOME MEASURES: Deaths that potentially could be avoided if patients with conditions for which a mortality-volume relationship had been treated at an HVH vs LVH.

RESULTS: The articles identified in the literature search were grouped by condition, and predetermined criteria were applied to choose the best article for each condition. Mortality was significantly lower at HVHs for elective abdominal aortic aneurysm repair, carotid endarterectomy, lower extremity arterial bypass surgery, coronary artery bypass surgery, coronary angioplasty, heart transplantation, pediatric cardiac surgery, pancreatic cancer surgery, esophageal cancer surgery, cerebral aneurysm surgery, and treatment of human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS). A total of 58,306 of 121,609 patients with these conditions were admitted to LVHs in California in 1997. After applying the calculated ORs to these patient populations, we estimated that 602 deaths (95% confidence interval, 304-830) at LVHs could be attributed to their low volume. Additional analyses were performed to take into account emergent admissions and distance traveled, but the impact of loss of continuity of care for some patients and reduction in the availability of specialists for patients remaining at LVHs could not be assessed. CONCLUSIONS: Initiatives to facilitate referral of patients to HVHs have the potential to reduce overall hospital mortality in California for the conditions identified. Additional study is needed to determine the extent to which selective referral is feasible and to examine the potential consequences of such initiatives.

PMID: 10703778 [PubMed - indexed for MEDLINE]


Differences in outpatient corticosteroid prescribing patterns between attending and house staff physicians as an indicator of the quality of supervision.


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Computerized information systems have become an indispensable source of quality improvement data in the healthcare field. The degree to which we are successful in using these systems is limited only by our ability to ask the right questions. In this study, computerized patient records were used to evaluate the uniformity in the prescribing patterns for oral corticosteroids among house staff and attending physicians as a measure of the adequacy of resident
A retrospective analysis of the records of 771 outpatients receiving prescriptions for oral corticosteroid preparations over 1 year in a large tertiary-care university-affiliated Department of Veterans Affairs Medical Center indicated different prescribing patterns for attending physicians and house staff. Additionally, it was noted that house staff tended to manage more complex patients than did attending physicians. We further evaluated the clinical outcomes of these patients to assess the quality, appropriateness, and comparability of care within cohorts of patients and to determine the degree to which resident supervision may have affected outcomes. The study results suggest that there is an opportunity to improve the management of patients treated with oral corticosteroid therapy by increasing staff physician involvement either through direct care of the most complex cases or through enhanced resident supervision.

PMID: 10680222 [PubMed - indexed for MEDLINE]

152: Sante Publique 1999 Sep;11(3):253-69

[Are sanitation services complaints an indicator of quality of care?]  
[Article in French]
De Vernejoul N, Gottot S, Freund R, Quidu F, Bigorie A.

DRASSIF, Paris, France.

A retrospective analysis of 211 consecutive complaints treated at the Direction of Health and Social Assistance of Paris was undertaken in order to specify the nature of the complaints and to evaluate their pertinence as an indicator of quality of care. The majority of complaints concern public and private health establishments, in particular surgery and psychiatric services. Although the study confirms the dysfunctioning of the organisation of services and also of therapeutic methods and medical treatments, the evaluation of iatrogenic risks and their avoidable nature is difficult and requires precise instruction. Complaints seem to be a neglected indicator of quality, yet they concern information that is accessible and could, if used with other information, be a first milestone in the vigilance of medical treatments.

PMID: 10667053 [PubMed - indexed for MEDLINE]

153: Qual Manag Health Care 1999 Fall;8(1):47-54

Risk-adjusted measurement of primary cesarean sections: reliable assessment of the quality of obstetrical services.
Pasternak DP, Pine M, Nolan K, French R.

Medalia HealthCare LLC, Seattle, Washington, USA.

A two-hospital system reported widely disparate Cesarean section rates in its component institutions. Statistical analysis determined that the apparent discrepancy was due primarily to patient-related factors. When risk-adjusted, both hospitals' rates were indistinguishable from expected rates. Reporting Cesarean section rates without appropriate risk adjustment yields potentially misleading results. Since reliable risk adjustment currently exists only for primary Cesarean sections, primary rates should be reported separately from "raw" rates for other procedures.

PMID: 10662103 [PubMed - indexed for MEDLINE]

154: J Hosp Infect  1999 Dec;43 Suppl:S265-8

How do you measure the impact of an antibiotic policy?

Nathwani D.

Infection & Immunodeficiency Unit, Dundee Teaching Hospitals NHS Trust.

The principle aim of antibiotic policies is to bring about a change in prescribing which will lead to decreased cost, reduction of resistance and improved quality (judicious, safe and appropriate) of antibiotic prescribing. Before embarking upon developing, disseminating and subsequently implementing an antibiotic policy clinicians and key decision makers need to make explicit at the onset of policy development, how they plan to evaluate its impact. Quality indicators of the process of implementing policies and their impact on various outcomes need to be identified. These number and complexity of these indicators is dependent on local resource but they must be specific to the organisation, simple, measurable and meaningful. This information needs to be shared and acted upon.

PMID: 10658790 [PubMed - indexed for MEDLINE]


Quality of nursing care perceived by patients and their nurses: an application of the critical incident technique. Part 2.

Redfern S, Norman I.

Nursing Research Unit, King's College London, UK.
The aims of the study were to identify indicators of quality of nursing care from the perceptions of patients and nurses, and to determine the congruence between patients' and nurses' perceptions. The paper is presented in two parts. Part 1 included the background and methods to the study and the findings from the comparison of patients' and nurses' perceptions. Part 2 describes the perceptions of patients and nurses, and draws conclusions drawn from the study as a whole. Patients and nurses in hospital wards were interviewed using the critical incident technique. We grouped 4546 indicators of high and low quality nursing care generated from the interview transcripts into 316 subcategories, 68 categories and 31 themes. The themes were grouped into eight clusters: therapeutic context for care, attitudes and sensitivity, teaching and leadership, motivation to nurse, monitoring and informing, high-dependency care, efficiency and thoroughness, reflection and anticipation. As shown in Part 1 of the paper, congruence between patients' and nurses' perceptions of quality was high and significant, although there was some difference of emphasis. The findings support an emerging theory of interpersonal competence and quality in nursing care.

PMID: 10624258 [PubMed - indexed for MEDLINE]


Quality of nursing care perceived by patients and their nurses: an application of the critical incident technique. Part 1.

Redfern S, Norman I.

Nursing Research Unit, King's College London, UK.

The aims of the study were to identify indicators of quality of nursing care from the perceptions of patients and nurses, and to determine the congruence between patients' and nurses' perceptions. The paper is presented in two parts. Part 1 includes the background and methods to the study and the findings from the comparison of patients' and nurses' perceptions. Part 2 describes the perceptions of patients and nurses, and the conclusions drawn from the study as a whole. Patients and nurses in hospital wards were interviewed using the critical incident technique. We grouped 4546 indicators of high and low quality nursing care generated from the interview transcripts into 316 subcategories, 68 categories and 31 themes. Congruence between patients' and nurses' perceptions of quality was high and significant, although there was some difference of emphasis.

PMID: 10624257 [PubMed - indexed for MEDLINE]
Implementation of risk assessment and classification of pressure ulcers as quality indicators for patients with hip fractures.

Gunningberg L, Lindholm C, Carlsson M, Sjoden PO.

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The aims of the study were (i) to investigate the prevalence of pressure ulcers in patients with hip fracture, on arrival at a Swedish hospital, at discharge, and two weeks post-surgery; (ii) to test whether clinical use of the Modified Norton Scale (MNS) could identify patients at risk for development of pressure ulcers; and (iii) to compare the reported prevalence of pressure ulcer in the experimental group, where risk assessment and classification of pressure ulcers was performed on a daily basis, with that of the control group, where it was not. The study design was prospective, with an experimental and a control group. The intervention in the experimental group consisted of risk assessment, risk alarm and skin observation performed by the nurse on duty, in the A & E Department, and daily throughout the hospital stay. To facilitate the nurse's assessment, a 'Pressure Ulcer Card' was developed, consisting of the MNS and descriptions of the four stages of pressure ulcers. On arrival at the hospital, approximately 20% of patients in both groups had pressure ulcers. At discharge, the rate had increased to 40% (experimental) and 36% (control). Clinical use of the MNS made it possible to identify the majority of patients at risk for development of pressure ulcers. Patients who were confused on arrival developed significantly more pressure ulcers than patients who were orientated to time and place. No significant difference was found in the reported prevalence of pressure ulcers between the experimental and control groups.

Publication Types:
Clinical Trial
Controlled Clinical Trial

PMID: 10624256 [PubMed - indexed for MEDLINE]

How accurate is the data you send to JCAHO?

You can reduce or eliminate errors in the data collection and reporting process by implementing a "chain of command"-style communications process emphasizing education, quality oversight, and correction, and by building in a rapid-response mechanism that lets coders quickly double-check anything they're uncertain about before the data are submitted.

PMID: 10623123 [PubMed - indexed for MEDLINE]
Was the decreasing trend in hospital mortality from heart failure attributable to improved hospital care? The Oregon experience, 1991-1995.

Ni H, Hershberger RE.

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OBJECTIVE: To assess the trend in risk-adjusted hospital mortality from heart failure. STUDY DESIGN: Oregon hospital discharge data from 1991 through 1995 were analyzed. PATIENTS AND METHODS: A total of 29,530 hospitalizations because of heart failure in elderly patients (age > or = 65 years) were identified from International Classification of Diseases, 9th Revision, codes 428.0-428.9. The logistic regression and life table analyses were used to assess the risk-adjusted trend in hospital mortality from heart failure. RESULTS: From 1991 through 1995, 1757 (5.9%) patients with heart failure died in the hospital; 920 (52.4%) of them died within 3 days. The percentage of patients discharged to skilled nursing facilities increased from 6.1% in 1991 to 9.8% in 1995 (P value for trend < .001), whereas the percentage of patients discharged directly to home decreased from 69.2% in 1991 to 62.4% in 1995 (P value for trend < .001). The mean length of stay decreased from 5.15 days in 1991 to 3.97 days in 1995. The age- and sex-standardized mortality rate decreased by 33.8% from 7.4 in 1991 to 4.8 in 1995 (P value for trend < .01). Additional adjustment for comorbidity using multiple logistic regression revealed a greater reduction of 41.0% in the mortality rate (odds ratio = 0.59; 95% confidence interval = 0.50, 0.69) and a reduction of 46.0% in the 3-day mortality rate (odds ratio = 0.54; 95% confidence interval = 0.43, 0.67) across the 5-year period. Life table analysis showed consistently lower cumulative mortality rates during the first week after admission in 1995 compared with those in 1991 (P < .001). CONCLUSION: There was a decreasing trend over time in the risk-adjusted hospital mortality rates from heart failure, which was not an artifact of decreasing length of stay. Our findings raised the possibility of improved hospital care for heart failure in Oregon.

PMID: 10621076 [PubMed - indexed for MEDLINE]

Integration of generic indicators for quality management in hospital information systems.
Hospital information systems may contribute in different ways to quality management activities such as monitoring of quality indicators. Most existing quality management activities in hospitals are adjusted to a special medical field or particular disease. These activities often run simultaneously with other procedures and the documentation of patient care. To determine an interdisciplinary integrated quality management procedure, a pilot study was carried out at the Neurosurgery Department and Neonatology Division of the Medical Center of the University of Heidelberg. Predefined generic indicators that may be integrated in an existing information system and used in hospital routine were the basis of this project. The aim of the study was to support the quality management with periodic reports of these indicators. The pilot study showed that there were barriers along the path to an integrated generic quality management. To meet the requirements of routine monitoring, using predefined generic indicators of hospital care, much integration effort, directed at organizational aspects of information processing and information systems architecture, is still needed.

PMID: 10619288 [PubMed - indexed for MEDLINE]


Are unplanned readmissions to hospital really preventable?

Miles TA, Lowe J.

Executive Office, John Hunter Hospital, Newcastle, NSW, Australia.

All John Hunter Hospital readmission data for October 1998 were examined. Twenty-four readmissions out of 3081 total admissions (0.8%) were defined as adverse events (unplanned readmissions) being nominally due to inappropriate medical management. The 24 adverse events comprised 5.5% of the 437 readmissions. A further five readmissions occurred because scheduled theatre was cancelled. Remaining readmissions were due to the condition of the patient in each case. Of the 16 highly preventable adverse events, 10 were allocated to the minor temporary category of severity. It is difficult to evaluate these readmission rates because there are no comparable findings in other Australian studies. The adverse events showed no particular association with patient age, sex, hospital of original admission or hospital specialty. While they were technically preventable, after medical record review a senior clinician identified these as extremely difficult cases, indicating that better outcomes
may not have been possible.

PMID: 10619148 [PubMed - indexed for MEDLINE]

162: J Nurs Care Qual 1999 Nov;Spec No:86-97
Using data in the case management process.

Noetscher CM.

Department of Case Management, Crouse Hospital, Syracuse, New York, USA.

This article describes the role of the case manager in improving hospital utilization and outcomes. It suggests a number of indicators for measurement of quality and resource use based on extensive experience with the case management process. It also provides guidance concerning the development and use of these indicators within acute care organizations. It provides information concerning specific situations encountered by case managers.

Publication Types:
Review
Review, Tutorial

PMID: 10616277 [PubMed - indexed for MEDLINE]

163: J Nurs Care Qual 1999 Nov;Spec No:67-85
Using data to reduce hospital readmissions.

Franklin PD, Noetscher CM, Murphy ME, Lagoe RJ.

University Hospital-SUNY HSC, Syracuse, USA.

This article describes the importance and the development of data concerning hospital readmissions as an outcomes indicator. It emphasizes the need for consistent definition of readmissions according to time intervals and diagnostic categories. It describes the development of readmission information using computer abstract databases to ensure consistency of indicators. It also provides examples of data developed through this approach.

Publication Types:
Review
Review, Tutorial
164: J Nurs Care Qual 1999 Nov;Spec No:55-66

Using data to evaluate hospital inpatient mortality.

Franklin PD, Legault JP.

University Hospital-SUNY HSC, Syracuse, USA.

This article evaluates the use of hospital inpatient mortality as an indicator of health care outcomes and describes the development of related data. It demonstrates both the strengths and limitations of mortality as a measure of outcomes. It provides guidance concerning the development of raw and severity adjusted mortality data. It also provides information concerning data related to unexpected mortality and complications.

Publication Types:
Review
Review, Tutorial

PMID: 10616276 [PubMed - indexed for MEDLINE]

165: J Nurs Care Qual 1999 Nov;Spec No:40-54

Reducing hospital inpatient lengths of stay.

Murphy ME, Noetscher CM.

Home Health Services, St. Joseph's Hospital Health Center, Syracuse, New York, USA.

This article describes the importance of hospital length of stay as an indicator of health care efficiency and provides guidance concerning the development of data for length of stay reduction. It identifies variables involved in length of stay evaluation including the mean stay, median stay, and length of stay standard deviation. It describes how consistent length of stay data can be generated and analyzed for local populations and benchmark communities.

Publication Types:
Review
Review, Tutorial

PMID: 10616275 [PubMed - indexed for MEDLINE]
166: J Nurs Care Qual 1999 Nov;Spec No:25-39

Analyzing hospital admission rates at the community level.

Lagoe RJ, Arnold KA, Littau SA.

Community-General Hospital, Syracuse, New York, USA.

This article describes the importance of hospital admission rates as utilization indicators and provides guidance on the development of related data. It identifies categories for analysis of hospital admission rates, including inpatient services, age groups, and geographic units. It describes how resident hospital admission rates can be developed from computer abstract data and contains examples of this information.

Publication Types:
Review
Review, Tutorial

PMID: 10616273 [PubMed - indexed for MEDLINE]

167: J Nurs Care Qual 1999 Nov;Spec No:7-24

Health care data and their sources.

Lagoe RJ, Kurtzig BS, Hohner VK.

National Association of Health Data Organizations, Falls Church, Virginia, USA.

This article outlines the types of health care data currently available from internal and external sources. It describes utilization, outcomes, and financial data. It focuses on information available through computer abstract hospital databases. It provides information concerning the sources and content of these databases.

Publication Types:
Review
Review, Tutorial

PMID: 10616272 [PubMed - indexed for MEDLINE]

Evaluation of the multifunctional worker role: a stakeholder analysis.

Jones KR, Redman RW, VandenBosch TM, Holdwick C, Wolgin F.

University of Michigan School of Nursing, Ann Arbor 48109-0482, USA.

Health care organizations are rethinking how care is delivered because of incentives generated by managed care and a competitive marketplace. An evaluation of a work redesign project that involved the creation of redesigned unlicensed caregiver roles is described. The effect of model implementation on patients, multiple categories of caregivers, and physicians was measured using several different approaches to data collection. In this evaluation, caregivers perceived the institutional culture to be both market-driven and hierarchical. The work redesign, along with significant changes in unit configuration and leadership over the same period, significantly reduced job security and satisfaction with supervision. Quality indicators suggested short-term declines in quality during model implementation with higher levels of quality after implementation issues were resolved. Objective measurement of the outcomes of work redesign initiatives is imperative to assure appropriate adjustments and responses to caregiver concerns.

PMID: 10603886 [PubMed - indexed for MEDLINE]


Performance indicators for discharge planning: a focused review of the literature.

Hedges G, Grimmer K, Moss J, Falco J.

Centre for Allied Health Research, University of South Australia, Adelaide, Australia.

The literature on discharge planning was reviewed with the aim of developing performance indicators to complement the phases of successful discharge planning of: assessment of need, development of plans, implementation of plans and evaluation of outcome. The researchers suggest that these four phases link closely with steps in the Total Quality Management (TQM) cycle of thinking, planning, acting and reviewing. The literature review took account of stakeholders in discharge planning, defining them as hospital and community services, funding bodies and patients and carers. While the literature generally supports the need to develop discharge planning performance indicators, there were few concrete examples that reflected all phases of discharge planning or the needs of all stakeholders. The literature has focused largely on nursing discharge planning activities for specific patient groups, and/or particular hospital and community settings, and has commonly addressed only one or two
phases of discharge planning. There were few articles that explored health outcome or cost savings derived from discharge planning on a large scale or over the longer term. The researchers conceptualised a notion of domains of quality discharge planning (efficiency of discharge planning process, timeliness of decision-making, stakeholder satisfaction and managing impediments to discharge), and propose performance indicators that address each discharge planning phase from the perspective of stakeholders.

Publication Types:
Review
Review Literature

PMID: 10603768 [PubMed - indexed for MEDLINE]

170: Ned Tijdschr Geneeskd 1999 Nov 20;143(47):2351-4

Comment in:

[Autopsies as an important indicator for quality control]
[Article in Dutch]

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The decreasing number of autopsies, in the Netherlands as well, is deplorable because with it an important instrument of medical quality control is likely to disappear. For this not only the relatives, but also the attending physicians and the pathologists are to blame. To turn the tide we need some drastic changes in our attitude towards autopsies. The families should known that an autopsy is a right they have in order to check the quality of diagnosis and treatment of their beloved, it is not a favour towards the physician. A physician who does not see a reason for autopsy, should explain that to the family. Pathologists should think about and realize a subspecialty of autopsy pathology with a thorough training in pathophysiology and intensive care medicine. Autopsy reports should be of the highest quality and reach the physician within a few weeks. A required autopsy percentage should be introduced into the certification process of medical specialists and hospitals and the possibility of Continuous Medical Education credit points for physicians with a certain autopsy percentage should be considered.

Publication Types:
Review
Review, Tutorial
Usefulness of a state-legislated, comparative database to evaluate quality in colorectal surgery.

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PURPOSE: Colorectal surgery, a high-volume procedure, has been targeted for performance improvement to reduce length of stay. Specific postoperative quality indicators and readmission rates should be analyzed concomitantly to assure that adverse events are not associated with earlier discharge. METHODS: From July 1, 1990, to June 30, 1997, 1,218 consecutive patients who underwent transabdominal colorectal surgery were analyzed for length of stay, mortality, morbidity, and discharge disposition. Each patient was assigned an Admission Severity Group rating 0 to 4 using a hospital-based state-legislated software system (Atlas) to validate comparative performance internally and externally. Readmission data within 120 days of discharge were available for the last 678 consecutive patients from July 1, 1993, to June 30, 1997, using Lastword (computerized medical records). RESULTS: The annual frequencies of the 1,218 procedures were 173, 183, 175, 146, 167, 189, and 185, respectively, from July 1990 through June 1997. Severity distribution was 32 for Admission Severity Group 0, 517 for Admission Severity Group 1, 540 for Admission Severity Group 2, 128 for Admission Severity Group 3, and 1 for Admission Severity Group 4, with no annual difference (P = 0.012). There was a significant reduction in total length of stay of 3.1 (12.9-9.8) days during the seven years (P = 0.001). The overall operative mortality rate was 1.4 percent, and the morbidity was 2.6 percent, with no annual differences (P = 0.655 and P = 0.033, respectively). The disposition to home did not change (P = 0.21). Of the 678 patients followed up for readmission, 100 (14.7 percent) were readmitted within 120 days, with no annual difference (P = (.302). CONCLUSION: Mortality, morbidity, disposition, and readmission rates were not affected by a decreased length of stay after colorectal surgery.

Measuring quality in hospitals: is there a difference between for-profits and not-for-profits?
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Health care professionals agree that by measuring quality, improvements can be made in care delivery. There are measurable differences between not-for-profit and for-profit hospitals, both in public perception and care outcomes. The ability by consumers, insurers and providers to easily access quality data will drive the health care industry to take a quality focus in their daily business. Quality providers with measurable results will gain a larger share of health care dollars and consumer trust. Physicians will choose to partner with the quality leaders and will refine their practices as part of the quality evolution.

PMID: 10557399 [PubMed - indexed for MEDLINE]

173: J Healthc Qual 1999 May-Jun;21(3):35-40

Cascading data sets: putting the pieces together.

Williams TP, Geary ME.

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Just as quality programs have evolved into organization-wide performance improvement efforts, the quality professional's role has expanded, bringing new challenges and expectations. The quality services umbrella, an operational framework for a total systems quality process, helps organization leaders and quality professionals identify organizational functions that contribute to overall performance. This article describes the benefits of utilizing the quality services umbrella framework through five examples. Each example highlights different benefits of the model, such as identifying a system's quality issues, enhancing performance improvement efforts, sustaining improvements, and effecting cost savings.

PMID: 10537448 [PubMed - indexed for MEDLINE]

174: J Accid Emerg Med 1999 Sep;16(5):319-21

Using clinical indicators in emergency medicine: documenting performance improvements to justify increased resource allocation.

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OBJECTIVES: To demonstrate how emergency department triage scale and thrombolysis indicator data can be used to document the impact of a substantial increase in resource allocation. METHODS: Descriptive study in an emergency department of an adult tertiary hospital in Perth, Australia during similar periods of the year both before and after a substantial increase in emergency department staff, equipment, and system resources. The study group comprised a total of 11,048 emergency department attendances and all cases of emergency department initiated thrombolysis or acute angioplasty. Outcome was measured using numbers seen and percentage seen within indicator threshold time together with admission rates in each of the five triage categories as well as by using time from presentation to initiation of reperfusion treatment in acute myocardial infarction. RESULTS: The proportion of patients seen within the prescribed indicator time increased by 16.4% (95% confidence interval 14.4% to 18.2%). The increase was most pronounced in triage category 2 (32.7%). Median time to thrombolysis fell by 30 minutes to 37 minutes (p = 0.0002). CONCLUSIONS: Use of the Australasian national triage scale and time to thrombolysis clinical indicator data allows a quantitative assessment of the impact of increased emergency department resource allocation.

PMID: 10505908 [PubMed - indexed for MEDLINE]

175: Cad Saude Publica  1999 Jul-Sep;15(3):581-90
[Analysis of adequacy and effectiveness in the use of tocolytics in preterm labor]
[Article in Portuguese]

Silva LK, Reis AF, da Costa TP, de Azevedo AP, Iamada N, de Albuquerque CP.

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The objective of this study was to assess quality of care for premature labor at public maternity facilities in Rio de Janeiro, Brazil, using referents, indicators, and standards of care derived from scientific evidence. The standard utilized in the process analysis for use of betamimetic tocolytics was 100%, considering the related referents. For outcome analysis, the standard applied was the occurrence of premature delivery in 11% of patients within 24 h and in 24% of patients (referent) within 48 h of hospital admission. Use of tocolytics was observed in 18.7% of patients admitted in premature labor. At gestational age from 28 weeks to 33 weeks and 6 days, especially critical for neonatal
survival, tocolytics were used in 32.6% of patients. Premature birth occurred in 59% of patients within 24 h and in 64% within 48 h. These outcomes were consistent with the low rate of utilization of tocolytics. Effectiveness of care for preterm labor measured by rate of premature birth was low. Results of the corresponding process and outcomes analysis were consistent.

Publication Types:
Clinical Trial
Review
Review, Tutorial

PMID: 10502154 [PubMed - indexed for MEDLINE]

176: Health Care Manage Rev 1999 Summer;24(3):18-29

Mission statement content and hospital performance in the Canadian not-for-profit health care sector.

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This article presents the findings from an exploratory research study that assessed the content and impact of mission statements in 103 Canadian not-for-profit health care organizations. The study especially sought to determine if a relationship existed between selected mission statement components and various hospital performance indicators.

PMID: 10463104 [PubMed - indexed for MEDLINE]

177: Med Care 1999 Aug;37(8):798-808


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OBJECTIVE: To evaluate the validity of three criteria-based methods of quality assessment: unit weighted explicit process-of-care criteria; differentially weighted explicit process-of-care criteria; and structured implicit
process-of-care criteria. METHODS: The three methods were applied to records of index hospitalizations in a study of unplanned readmission involving roughly 2,500 patients with one of three diagnoses treated at 12 Veterans Affairs hospitals. Convergent validity among the three methods was estimated using Spearman rank correlation. Predictive validity was evaluated by comparing process-of-care scores between patients who were or were not subsequently readmitted within 14 days. RESULTS: The three methods displayed high convergent validity and substantial predictive validity. Index-stay mean scores, using explicit criteria, were generally lower in patients subsequently readmitted, and differences between readmitted and nonreadmitted patients achieved statistical significance as follows: mean readiness-for-discharge scores were significantly lower in patients with heart failure or with diabetes who were readmitted; and mean admission work-up scores were significantly lower in patients with lung disease who were readmitted. Scores derived from the structured implicit review were lower in patients eventually readmitted but significantly so only in diabetics. CONCLUSIONS: These three criteria-based methods of assessing process of care appear to be measuring the same construct, presumably "quality of care."

Both the explicit and implicit methods had substantial validity, but the explicit method is preferable. In this study, as in others, it had greater inter-rater reliability.

PMID: 10448722 [PubMed - indexed for MEDLINE]

178: Health Serv Res 1999 Aug;34(3):777-90

The hospital multistay rate as an indicator of quality of care.

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OBJECTIVES: To evaluate the hospital multistay rate to determine if it has the attributes necessary for a performance indicator that can be applied to administrative databases. DATA SOURCES/STUDY SETTING: The fiscal year 1994 Veterans Affairs Patient Treatment File (PTF), which contains discharge data on all VA inpatients. STUDY DESIGN: Using a retrospective study design, we assessed cross-hospital variation in (a) the multistay rate and (b) the standardized multistay ratio. A hospital's multistay rate is the observed average number of hospitalizations for patients with one or more hospital stays. A hospital's standardized multistay ratio is the ratio of the geometric mean of the observed number of hospitalizations per patient to the geometric mean of the expected number of hospitalizations per patient, conditional on the types of patients admitted to that hospital. DATA COLLECTION/EXTRACTION METHODS: Discharge data were extracted for the 135,434 VA patients who had one or more admissions in one of seven disease groups. PRINCIPAL FINDINGS: We found that 17.3 percent (28,300) of the admissions in the seven disease categories were readmissions. The average
number of stays per person (multistay rate) for an average of seven months of follow-up ranged from 1.15 to 1.45 across the disease categories. The maximum standardized multistay ratio ranged from 1.12 to 1.39. CONCLUSIONS: This study has shown that the hospital multistay rate offers sufficient ease of measurement, frequency, and variation to potentially serve as a performance indicator.

PMID: 10445902 [PubMed - indexed for MEDLINE]

179: Psychiatr Serv 1999 Aug;50(8):1053-8

Patient satisfaction and administrative measures as indicators of the quality of mental health care.

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OBJECTIVE: Although measures of consumer satisfaction are increasingly used to supplement administrative measures in assessing quality of care, little is known about the association between these two types of indicators. This study examined the association between these measures at both an individual and a hospital level. METHODS: A satisfaction questionnaire was mailed to veterans discharged during a three-month period from 121 Veterans Administration inpatient psychiatric units; 5,542 responded, for a 37 percent response rate. These data were merged with data from administrative utilization files. Random regression analysis was used to determine the association between satisfaction and administrative measures of quality for subsequent outpatient follow-up. RESULTS: At the patient level, satisfaction with several aspects of service delivery was associated with fewer readmissions and fewer days readmitted. Better alliance with inpatient staff was associated with higher administrative measures of rates of follow-up, promptness of follow-up, and continuity of outpatient care, as well as with longer stay for the initial hospitalization. At the hospital level, only one association between satisfaction and administrative measures was statistically significant. Hospitals where patients expressed greater satisfaction with their alliance with outpatient staff had higher scores on administrative measures of promptness and continuity of follow-up. CONCLUSIONS: The associations between patient satisfaction and administrative measures of quality at the individual level support the idea that these measures address a common underlying construct. The attenuation of the associations at the hospital level suggests that neither type can stand alone as a measure of quality across institutions.

PMID: 10445654 [PubMed - indexed for MEDLINE]
Does the Complications Screening Program flag cases with process of care problems? Using explicit criteria to judge processes.


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BACKGROUND: The Complications Screening Program (CSP) aims to identify 28 potentially preventable complications of hospital care using computerized discharge abstracts, including demographic information, diagnosis and procedure codes. OBJECTIVE: To validate the CSP as a quality indicator by using explicit process of care criteria to determine whether hospital discharges flagged by the CSP experienced more process problems than unflagged discharges. METHODS: The (CSP was applied to computerized hospital discharge abstracts from Medicare beneficiaries > 65 years old admitted in 1994 to hospitals in California and Connecticut for major surgery or medical treatment. (If 28 CSP complications, 17 occurred sufficient frequently to study. Discharges flagged (cases) and unflagged (controls) by the (CSP were sampled and photocopied medical records were obtained. Physicians specified detailed, objective, explicit criteria, itemizing 'key steps' in processes of care that could potentially have prevented or caused complications. Trained nurses abstracted medical records using these explicit criteria. Process problem rates between cases and controls were compared. RESULTS: The final sample included 740 surgical and 416 medical discharges. Rates of process problems were high, ranging from 24.4 to 82.5% across CSP screens for surgical cases. Problems were lower for medical cases, ranging from 2.0 to 69.1% across CSP screens. Problem rates were 45.7% for surgical and 5.0% for medical controls. Rates of problems did not differ significantly across flagged and unflagged discharges. CONCLUSIONS: The CSP did not flag discharges with significantly higher rates of explicit process problems than unflagged discharges. Various initiatives throughout the USA use techniques similar to the CSP to identify complications of care. Based on these CSP findings, such approaches should be evaluated cautiously.

PMID: 10442841 [PubMed - indexed for MEDLINE]
OBJECTIVE: To develop an instrument for provider organizations, consumers, purchasers, and policy makers to measure and compare the development of quality systems in provider organizations. DESIGN: Cross-sectional study of provider organizations using a structured questionnaire to survey managers. SETTING: The Netherlands. STUDY PARTICIPANTS: Provider organizations of six health care fields: primary health care, care for the disabled, mental health care, care for the elderly, hospital care and welfare care. MAIN MEASURES: Existence of quality assurance and quality improvement activities. RESULTS: The study presents a survey instrument for assessing the quality assurance and improvement activities of health care provider organizations and the developmental stage of quality systems. The survey instrument distinguishes five focal areas for quality improvement activities and four developmental stages. The study also reports data on the reliability and validity of the survey instrument. CONCLUSION: The instrument is reliable, easy to administer, and useful across health care fields as well as different kinds of organizations. Developing quality systems provide a common language across all parts of the health care sector. By assigning the activities to focal areas and developmental stages the instrument gives insight into the implementation of quality systems in health care. Comparable information on quality assurance activities increases the accountability of providers. Because of the efficient (not time consuming) approach, the instrument complements existing accreditation reviews.

Publication Types:
Multicenter Study

PMID: 10442842 [PubMed - indexed for MEDLINE]
eleven suggested indicators were successfully piloted. Two indicators require further development. In seven of the nine hospitals external cephalic version was not commonly performed. There were wide variations in the proportions of women screened for asymptomatic bacteriuria. Screening of women from ethnic minorities for haemoglobinopathy was more likely in hospitals with a large proportion of non-caucasian women. A large number of Rhesus negative women did not have a Rhesus antibody check performed after 28 weeks of gestation and did not receive anti-D immunoglobulin after a potentially sensitising event during pregnancy. As a result of the study appropriate sample sizes for future audit could be calculated. CONCLUSIONS: Measuring the extent to which evidence-based interventions are used in routine clinical practice provides a more detailed picture of the strengths and weaknesses in an antenatal service than traditional outcomes such as perinatal mortality rates. Awareness of an appropriate sample size should prevent waste of time and resources on inconclusive audits.

Publication Types:
Multicenter Study

PMID: 10426637 [PubMed - indexed for MEDLINE]

183: Med Care 1999 Jan;37(1):83-92

Accuracy of risk-adjusted mortality rate as a measure of hospital quality of care.

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OBJECTIVES: Reports on hospital quality performance are being produced with increasing frequency by state agencies, commercial data vendors, and health care purchasers. Risk-adjusted mortality rate is the most commonly used measure of quality in these reports. The purpose of this study was to determine whether risk-adjusted mortality rates are valid indicators of hospital quality performance. METHODS: Based on an analytical model of random measurement error, sensitivity and predictive error of mortality rate indicators of hospital performance were estimated. RESULTS: The following six parameters were shown to determine accuracy: (1) mortality risks of patients who receive good quality care and (2) of those who receive poor quality care, (3) proportion of patients (across all hospitals) who receive poor quality care, (4) proportion of hospitals considered to be "poor quality," (5) patients' relative risk of receiving poor quality care in "good quality" and in "poor quality" hospitals, and (6) number of patients treated per hospital. Using best available values for model parameters, analyses demonstrated that in nearly all situations, even with perfect risk adjustment, identifying poor quality hospitals on the basis of
mortality rate performance is highly inaccurate. Of hospitals that delivered poor quality care, fewer than 12% were identified as high mortality rate outliers, and more than 60% of outliers were actually good quality hospitals. CONCLUSIONS: Under virtually all realistic assumptions for model parameter values, sensitivity was less than 20% and predictive error was greater than 50%. Reports that measure quality using risk-adjusted mortality rates misinform the public about hospital performance.

PMID: 10413396 [PubMed - indexed for MEDLINE]

184: Fam Pract 1999 Apr;16(2):140-2

Referral for 'prostatism': developing a 'performance indicator' for the threshold between primary and secondary care?

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OBJECTIVE: We aimed to define a performance indicator at the gateway between primary and secondary care. METHOD: We carried out an analysis of referral letters sent to an urological department within the catchment area of a teaching hospital in Cardiff, Wales. The subjects were 221 sequential referral letters from 221 GPs. The main outcome measures were the information content of referral letters analysed. Letters were stratified into referral threshold groups by the presence of history, examination, routine investigations and specialized investigations. RESULTS: Three distinct categories of referral practice were identified: referrals which contained history alone; those providing history examination and a selection of routine investigations; and those providing history, examination data and the results of routine and specialized investigations. The study demonstrated that more than a third of GPs do not report the results of digital rectal examination in their referrals and only 4% record urinary flow rates and post-micturition residual urine volume. CONCLUSIONS: The majority (60%) of generalist referrals to an urology department for prostatism provide enough information for specialists to be able to prioritize appointments, but more than a third (36%) of the referrals contain inadequate information. The method has the potential of being developed into a gateway performance indicator in clinical practice.

PMID: 10381019 [PubMed - indexed for MEDLINE]

185: J Nurs Adm 1999 Jun;29(6):48-54

Implementation of the ANA report card.
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A major challenge in healthcare today is measuring the quality of care. To explore nursing’s contribution to patients in acute care settings, the American Nurses Association commissioned the development of the "Nursing Report Card." This study explored whether these report card indicators capture quality care. The convenience sample comprised 1,500 patients and 300 nurses from 16 units at an academic medical center. Using regression analysis, the most consistent predictor of outcome indicators was the percentage of RNs of the total staff.

PMID: 10377925 [PubMed - indexed for MEDLINE]

186: JAMA 1999 Jun 9;281(22):2098-105

Comment in:
JAMA. 1999 Jun 9;281(22):2142-3.

The unreliability of individual physician "report cards" for assessing the costs and quality of care of a chronic disease.

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CONTEXT: Physician profiling is widely used by many health care systems, but little is known about the reliability of commonly used profiling systems. OBJECTIVES: To determine the reliability of a set of physician performance measures for diabetes care, one of the most common conditions in medical practice, and to examine whether physicians could substantially improve their profiles by preferential patient selection. DESIGN AND SETTING: Cohort study performed from 1990 to 1993 at 3 geographically and organizationally diverse sites, including a large staff-model health maintenance organization, an urban university teaching clinic, and a group of private-practice physicians in an urban area. PARTICIPANTS: A total of 3642 patients with type 2 diabetes cared for by 232 different physicians. MAIN OUTCOME MEASURES: Physician profiles for their patients' hospitalization and clinic visit rates, total laboratory resource utilization rate and level of glycemic control by average hemoglobin
A1c level with and without detailed case-mix adjustment. RESULTS: For profiles based on hospitalization rates, visit rates, laboratory utilization rates, and glycemic control, 4% or less of the overall variance was attributable to differences in physician practice and the reliability of the median physician's case-mix-adjusted profile was never better than 0.40. At this low level of physician effect, a physician would need to have more than 100 patients with diabetes in a panel for profiles to have a reliability of 0.80 or better (while more than 90% of all primary care physicians at the health maintenance organization had fewer than 60 patients with diabetes). For profiles of glycemic control, high outlier physicians could dramatically improve their physician profile simply by pruning from their panel the 1 to 3 patients with the highest hemoglobin A1c levels during the prior year. This advantage from gaming could not be prevented by even detailed case-mix adjustment. CONCLUSIONS: Physician "report cards" for diabetes, one of the highest-prevalence conditions in medical practice, were unable to detect reliably true practice differences within the 3 sites studied. Use of individual physician profiles may foster an environment in which physicians can most easily avoid being penalized by avoiding or deselecting patients with high prior cost, poor adherence, or response to treatments.

PMID: 10367820 [PubMed - indexed for MEDLINE]


Patient assessments of hospital maternity care: a useful tool for consumers?

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OBJECTIVE: To examine three issues related to using patient assessments of care as a means to select hospitals and foster consumer choice specifically, whether patient assessments (1) vary across hospitals, (2) are reproducible over time, and (3) are biased by case-mix differences. DATA SOURCES/STUDY SETTING: Surveys that were mailed to 27,674 randomly selected patients admitted to 18 hospitals in a large metropolitan region (Northeast Ohio) for labor and delivery in 1992-1994. We received completed surveys from 16,051 patients (58 percent response rate). STUDY DESIGN: Design was a repeated cross-sectional study. DATA COLLECTION: Surveys were mailed approximately 8 to 12 weeks after discharge. We used three previously validated scales evaluating patients' global assessments of care (three items) as well as assessments of physician (six items) and nursing (five items) care. Each scale had a possible range of 0 (poor care) to 100 (excellent care). PRINCIPAL FINDINGS: Patient assessments varied (p<.001) across hospitals for each scale. Mean hospital scores were higher or lower (p<.01) than the sample mean for seven or more hospitals during each year of data collection. However, within individual hospitals, mean scores were reproducible over the
three years. In addition, relative hospital rankings were stable; Spearman correlation coefficients ranged from 0.85 to 0.96 when rankings during individual years were compared. Patient characteristics (age, race, education, insurance status, health status, type of delivery) explained only 2-3 percent of the variance in patient assessments, and adjusting scores for these factors had little effect on hospitals' scores. CONCLUSIONS: The findings indicate that patient assessments of care may be a sensitive measure for discriminating among hospitals. In addition, hospital scores are reproducible and not substantially affected by case-mix differences. If our findings regarding patient assessments are generalizable to other patient populations and delivery settings, these measures may be a useful tool for consumers in selecting hospitals or other healthcare providers.

PMID: 10357293 [PubMed - indexed for MEDLINE]

188: BMJ 1999 Jun 5;318(7197):1515-20

Comment in:
BMJ. 2001 May 12;322(7295):1181.

Explaining differences in English hospital death rates using routinely collected data.


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OBJECTIVES: To ascertain hospital inpatient mortality in England and to determine which factors best explain variation in standardised hospital death ratios. Design: Weighted linear regression analysis of routinely collected data over four years, with hospital standardised mortality ratios as the dependent variable. SETTING: England. Subjects: Eight million discharges from NHS hospitals when the primary diagnosis was one of the diagnoses accounting for 80% of inpatient deaths. Main outcome measures: Hospital standardised mortality ratios and predictors of variations in these ratios. RESULTS: The four year crude death rates varied across hospitals from 3.4% to 13.6% (average for England 8.5%), and standardised hospital mortality ratios ranged from 53 to 137 (average for England 100). The percentage of cases that were emergency admissions (60% of total hospital admissions) was the best predictor of this variation in mortality, with the ratio of hospital doctors to beds and general practitioners to head of population the next best predictors. When analyses were restricted to emergency admissions (which covered 93% of all patient deaths analysed) number of doctors per bed was the best predictor. CONCLUSION: Analysis of hospital episode statistics reveals wide variation in standardised hospital
mortality ratios in England. The percentage of total admissions classified as emergencies is the most powerful predictor of variation in mortality. The ratios of doctors to head of population served, both in hospital and in general practice, seem to be critical determinants of standardised hospital death rates; the higher these ratios, the lower the death rates in both cases.

PMID: 10356004 [PubMed - indexed for MEDLINE]

189: Z Arztl Fortbild Qualitatssich 1999 Mar;93(2):123-8

[Quality assessment of medical care--a standardized scheme for the development of quality indicators]

[Article in German]

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A reliable and valid assessment of the quality of medical interventions is an indispensable prerequisite for any initiatives targeting at quality improvement in the health system. Quality indicators are well suited tools for such tasks, e.g. in the setting of a continuous monitoring. In the German health system, previous experiences concerning the use of quality indicators are limited. Available knowledge from medical services of other nations is mainly focused on the hospital sector. Therefore, it appears to be desirable to be able to provide a highly universal and standardized way for the definition of indicators of quality, enabling measurements of performance in any kind of health sector or disease treatment. Based on the demand for continuous quality monitoring in the sector of outpatient care recognized by the Central Institute of Panel Physicians, an indicator development scheme is demonstrated.

PMID: 10355061 [PubMed - indexed for MEDLINE]


Evaluation of a local cooperative project to improve postoperative pain management in Wisconsin hospitals.

Tavris DR, Dahl J, Gordon D, Kloepfel E, Williams N, Martin P, Gold J.

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The effectiveness of a local collaborative quality improvement project in
improving the management of postoperative pain for Wisconsin Medicare patients was assessed. Six quality indicators were evaluated on the basis of baseline data from 714 subjects at 15 collaborating hospitals and follow-up data from 406 subjects from the same 15 hospitals. After efforts to improve postoperative pain management, there was statistically significant improvement in all six quality indicators.

PMID: 10346459 [PubMed - indexed for MEDLINE]

191: Data Strateg Benchmarks  1997 Sep;1(3):40-2

HMO's data-driven cardiac network brings new meaning to provider competition.

Ensuring quality of cardiac care: Providers hoping to join Anthem Blue Cross Blue Shield's cardiac care network not only had to pass a stringent and complicated data-driven scorecard process, but once they were in they had to collect data on 400 different elements on CABG and PTCA. Here's how the data-intensive program works, plus some useful cardiology benchmarks on performance, complication rates, mortality, and more.

PMID: 10345878 [PubMed - indexed for MEDLINE]


Spider diagram helps hospital cut the fat using clinical quality and patient satisfaction data.

A balancing act: When it became apparent that a 900-bed hospital in Detroit needed to cut costs to stay viable, leaders decided making across-the-board cuts would be as dangerous as making no cuts. Instead, they began measuring four different types of indicators on a new service-line basis using a spider diagram to ensure they were balancing the needs of administration, physicians, patients, and the community.

PMID: 10345369 [PubMed - indexed for MEDLINE]

193: Med J Aust  1999 May 3;170(9):420-4

The extraction of quality-of-care clinical indicators from State health department administrative databases.

Majoor JW, Ibrahim JE, Cicuttini FM, Boyce NW, McNeil JJ.
OBJECTIVE: To assess whether three proposed quality-of-care indicators (unplanned readmissions, hospital-acquired bacteraemia, and postoperative wound infection) can be accurately identified from State health department databases.

DESIGN: Algorithms were applied to State health department databases to maximise the identification of individuals potentially positive for each indicator. Records of these patients were then examined to determine the percentage of cases that met the precise indicator definitions.

SETTING: 10 public, acute-care hospitals from Victoria, South Australia and New South Wales. Data from the 1994-95 and 1995-96 financial years were collected. PARTICIPANTS: Individuals 18 years of age or older who were identified from State health department administrative databases as potentially meeting the indicator criteria.

MAIN OUTCOME MEASURES: The proportion of screened cases that met the precise indicator definitions, and the elements of the indicator definitions which could not be extracted from the administrative databases. RESULTS: The proportions of cases confirmed by medical record review to be positive for the indicator events were 76.3% for unplanned readmissions within 28 days, 20% for hospital-acquired bacteraemia, 43.5% for wound infections after clean surgery, and 34.8% for wound infections after contaminated surgery. The clinical elements of each indicator definition were not easily extracted from the administrative databases.

CONCLUSIONS: The three proposed clinical indicators could not be extracted from current State health department databases without an extensive process of secondary medical record review. If administrative databases are to be used for assessing quality of care, more systematic recording of data is needed.

PMID: 10341773 [PubMed - indexed for MEDLINE]
hospitalization, were identified from administrative data using readmission diagnoses and intervening time periods designated by physician panels. We used linear regression to estimate the association between implicit and explicit quality measures and readmission status (RARs, non-RAR readmissions, and nonreadmissions), adjusting for severity. We tested whether RARs were associated with inferior care and performed simulations to determine whether RARs discriminated between hospitals on the basis of quality. RESULTS: Compared with nonreadmitted pneumonia patients, patients with RARs had lower adjusted quality measured both by explicit (0.25 standardized units, P = 0.004) and implicit methods (0.17, P = 0.047). Adjusted differences for CHF patients were 0.17 (P = 0.048) and 0.20 (P = 0.017), respectively. In some analyses, patients with non-RAR readmissions also experienced lower quality. However, rates of inferior quality care did not differ significantly by readmission status, and simulations identified no meaningful relationship between RARs and hospital quality of care.

CONCLUSIONS: RARs are statistically associated with lower quality of care. However, neither RARs nor other readmissions appear to be useful tools for identifying patients who experience inferior care or for comparing quality among hospitals.

PMID: 10335751 [PubMed - indexed for MEDLINE]


Improving the care of patients with community-acquired pneumonia: a multihospital collaborative QI project.

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BACKGROUND: Performance of several processes of care was measured in eight acute care hospitals in Connecticut which provided inpatient treatment to 713 elderly patients with community-acquired pneumonia (CAP). BASELINE DATA ABSTRACTION AND FEEDBACK: Chart review feedback was provided, and the hospitals were requested to design their own quality improvement (QI) interventions, after which reexamination of process of care performance was conducted. HOSPITAL QI INTERVENTIONS: Six of the eight hospitals had submitted QI plans. The quality indicators dealing with timeliness of antibiotic delivery were specifically addressed by five hospitals. However, each hospital also picked one or two other processes of care for intervention. RESULTS: The mean time to antibiotic administration decreased from 5.5 hours (+/- 0.2) to 4.7 hours (+/- 0.3; p < 0.0001), and the percentage of patients who received antibiotics within four hours increased from 41.5% to 61.8% (p < 0.0001). DISCUSSION: This project called for obtaining buy-in from both the clinician and administrative representatives of each hospital early in the process. In this way, the targeted processes of care were likely to have relevance for each of the participating hospitals.
hospitals. Education of practicing physicians and other health professionals, as the method chosen by each hospital to address delays in antibiotic administration, appears to have been successful in this project as part of a multifaceted intervention. The project also helped establish a collegial environment that has served as the basis for more ambitious pneumonia QI projects. SUMMARY AND CONCLUSIONS: Widespread improvements in process of care performance can result from hospitals’ participation in Quality Improvement Organization collaboration.

Publication Types:
Multicenter Study

PMID: 10228910 [PubMed - indexed for MEDLINE]

Are readmissions to the intensive care unit a useful measure of hospital performance?

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BACKGROUND: Although patients readmitted to intensive care units (ICUs) typically have poor outcomes, ICU readmission rates have not been studied as a measure of hospital performance. OBJECTIVES: To determine variation in ICU readmission rates across hospitals and associations of readmission rates with other ICU-based measures of hospital performance. RESEARCH DESIGN: Observational cohort study. SUBJECTS: One hundred three thousand nine hundred eighty four consecutive ICU patients who were admitted to twenty eight hospitals who were then transferred to a hospital ward in those 28 hospitals. MEASURES: Predicted risk of in-hospital death and ICU length of stay (LOS) were determined by a validated method based on age, ICU admission source, diagnosis, comorbidity, and physiologic abnormalities. Severity-adjusted mortality rates, LOS, and readmission rates were determined for each hospital. RESULTS: One or more ICU readmissions occurred in 5.8% patients who were initially classified as postoperative and in 6.4% patients who were initially classified as nonoperative. In-hospital mortality rate was 24.7% in patients who were readmitted as compared with 4.0% in other patients (P < 0.001). After adjusting for predicted risk of death, the odds of death remained 7.5 times higher (OR 7.5, 95% CI, 6.8-8.3). Readmitted patients also had longer (P < 0.001) ICU LOS (5.2 vs. 3.7 days) and hospital LOS (29.3 vs. 11.7 days). Severity-adjusted readmission rates varied across hospitals from 4.2% to 7.6%. Readmission rates were not correlated with severity-adjusted hospital mortality, ICU LOS, or hospital LOS. CONCLUSIONS: ICU patients who were subsequently readmitted have a higher risk of death and longer LOS after adjusting for severity of illness.
However, readmission rates were not associated with severity-adjusted mortality or LOS. Those data indicate that ICU readmission may capture other aspects of hospital performance and may be complementary to these measures.

PMID: 10213020 [PubMed - indexed for MEDLINE]

197: Nurs Adm Q 1999 Winter;23(2):55-64

Creative winds of change: nurses collaborating for quality outcomes.

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This article describes the collaboration of two researchers and two clinicians at one rural medical center to develop and implement Phase I of a project that was part of the Quality Indicator Initiative of the American Nurses Association (ANA). Changes in the health care environment led the researchers to develop educational programs that eventually evolved into a pilot research project to explore the feasibility of data collection on ANA Quality Indicators. Collaboration between the researchers and clinicians led to outcomes that relate to future efforts for collecting and analyzing data on clinical outcome indicators.

PMID: 10205478 [PubMed - indexed for MEDLINE]

198: Health Serv Res 1999 Apr;34(1 Pt 2):391-404

Developing quality measures for adolescent care: validity of adolescents' self-reported receipt of preventive services.

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OBJECTIVE: To demonstrate the feasibility of directly surveying adolescents about the content of preventive health services they have received and to assess the validity of adolescent self-reported recall. DATA SOURCES/SETTING: Audiotaped encounters, telephone interviews, and chart reviews with 14-21 year olds being seen for preventive care visits at 15 pediatric and family medicine private practices, teaching hospital clinics, and health centers. DESIGN: 537 adolescents presenting for well visits were approached, 400 (75 percent) consented, 374 (94 percent) were audiotaped, and 354 (89 percent) completed telephone interviews either two to four weeks or five to seven months after their visits. Audiotapes were coded for screening and counseling across 34
preventive service content areas. Intraobserver reliability (Cohen's kappa) ranged from 0.45 for talking about peers to 0.94 for discussing tobacco. The sensitivity and specificity of the adolescent self-reports were assessed using the audiotape coding as the gold standard. RESULTS: Almost all adolescents surveyed (94 percent) remembered having had a preventive care visit, 93 percent identified the site of care, and most (84 percent) identified the clinician they had seen. There was wide variation in the prevalence of screening, based on the tape coding. Adolescent self-report was moderately or highly sensitive and specific at two weeks and six months for 24 of 34 screening and counseling items, including having discussed: weight, diet, body image, exercise, seatbelts, bike helmet use, cigarettes/smoking, smokeless tobacco, alcohol, drugs, steroids, sex, sexual orientation, birth control, condoms, HIV, STDs, school, family, future plans, emotions, suicidality, and abuse. Self-report was least accurate for blood pressure/cholesterol screening, immunizations, or for having discussed fighting, violence, weapon carrying, sleep, dental care, friends, or over-the-counter drug use. CONCLUSION: Adolescents' self-report of the care they have received is a valid method of determining the content of preventive health service delivery. Although recall of screening and counseling is more accurate within two to four weeks after preventive care visits, adolescents can report accurately on the care they had received five to seven months after the preventive health care visits occurred.

PMID: 10199683 [PubMed - indexed for MEDLINE]

199: Health Serv Res 1999 Apr;34(1 Pt 2):349-63

Conditional Length of Stay.

Silber JH, Rosenbaum PR, Koziol LF, Sutaria N, Marsh RR, Even-Shoshan O.

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OBJECTIVE: To develop and test a new outcome measure, Conditional Length of Stay (CLOS), to assess hospital performance when deaths are rare and complication data are not available. DATA SOURCES: The 1991 and 1992 MedisGroups National Comparative Data Base. STUDY DESIGN: We use engineering reliability theory traditionally applied to estimate mechanical failure rates to construct a CLOS measure. Specifically, we use the Hollander-Proshan statistic to test if LOS distributions display an "extended" pattern of decreasing hazards after a transition point, suggesting that "the longer a patient has stayed in the hospital, the longer a patient will likely stay in the hospital" versus an alternative possibility that "the longer a patient has stayed in the hospital, the faster a patient will likely be discharged from the hospital." DATA COLLECTION/EXTRACTION METHODS: Abstracted records from 7,777 pediatric pneumonia cases and 3,413 pediatric appendectomy cases were available for analysis.
PRINCIPAL FINDINGS: For both conditions, the Hollander-Proshchan statistic strongly displays an "extended" pattern of LOS by day 3 (p<.0001) associated with declining rates of discharge. This extended pattern coincides with increasing patient complication rates. Worse admission severity and chronic disease contribute to lower rates of discharge after day 3. CONCLUSIONS: Patient stays tend to become prolonged after complications. By studying CLOS, one can determine when the rate of hospital discharge begins to diminish--without the need to directly observe complications. Policymakers looking for an objective outcome measure may find that CLOS aids in the analysis of a hospital's management of complicated patients without requiring complication data, thereby facilitating analyses concerning the management of patients whose care has become complicated.

PMID: 10199680 [PubMed - indexed for MEDLINE]

200: J N Y State Nurses Assoc  1998 Fall-Winter;29(3-4):21-7

Empowering staff nurses to participate in the American Nurses Association's call for quality indicators research.

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The American Nurses Association (ANA) advocates establishment of a national database, which can collect, aggregate, and analyze patient data to link nursing activities to 10 quality of care outcomes. These outcomes, developed through extensive research, can highlight the essential nature of nursing, demonstrate institutional compliance with external standards, and justify registered nurse staffing patterns. Staff nurses collect and record the data that provide the foundation for the quality nursing indicators research initiative. This paper focuses on the important and unique role that staff nurses can play in advancing this agenda.

PMID: 10076290 [PubMed - indexed for MEDLINE]

201: Lakartidningen  1999 Jan 20;96(3):217-20

[Sensitive quality indicators stimulate improvement of care]

[Article in Swedish]

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For the past four years, 52 of the approximately 80 departments of medicine in Sweden have collected data on key indicators of quality of care with regards to acute myocardial infarction, stroke, anticoagulant treatment, and diabetes. The results are analysed centrally, each department being supplied with feedback in the form of overall results, and comparison of its own values with the respective means. Gradual general improvement has been discernible over time, though there is still room for improvement at some departments. There have been isolated instances of manifest changes in indicator values associated with major departmental reorganisation, probably reflecting real deterioration in quality of care. Thus, indicator monitoring would appear a sensitive means of promoting qualitative improvement.

PMID: 10068325 [PubMed - indexed for MEDLINE]


Some impacts of nursing on acute care hospital outcomes.

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Measuring nursing-sensitive patient outcomes using publicly available data provides exciting opportunities for the nursing profession to quantify the patient care impact of staffing changes at individual hospitals and to make comparisons among hospitals with differing staffing patterns. Using data from California and New York, this study tested the feasibility of measuring such outcomes in acute care hospitals and examining relationships between these outcomes and nurse staffing. Nursing intensity weights were used to acuity-adjust the patient data. Both higher nurse staffing and higher proportion of RNs were significantly related to shorter lengths of stay. Lower adverse outcome rates were more consistently related to a higher proportion of RNs.

PMID: 10029799 [PubMed - indexed for MEDLINE]

203: JAMA  1999 Feb 17;281(7):627-33

Geographic variation in the treatment of acute myocardial infarction: the Cooperative Cardiovascular Project.

O'Connor GT, Quinton HB, Traven ND, Ramunno LD, Dodds TA, Marciniak TA, Wennberg JE.
CONTEXT: Quality indicators for the treatment of acute myocardial infarction include pharmacologic therapy, reperfusion, and smoking cessation advice, but these therapies may not be administered to all patients who could benefit from them. OBJECTIVE: To assess geographic variation in adherence to quality indicators for treatment of acute myocardial infarction. DESIGN: Inception cohort using data from the Health Care Financing Administration Cooperative Cardiovascular Project. SETTING: Acute care hospitals in the United States. PATIENTS: A total of 186800 Medicare beneficiaries hospitalized for treatment of confirmed acute myocardial infarction from February 1994 through July 1995. MAIN OUTCOME MEASURES: Adherence to quality indicators for pharmacologic therapy, reperfusion, and smoking cessation advice for patients judged to be ideal candidates for these therapies. The mean rates of adherence to these quality indicators for the entire United States were determined, and the 20th and 80th percentiles of the age- and sex-adjusted rates for each of 306 hospital referral regions were contrasted (mean rate [20th-80th percentiles]). RESULTS: Aspirin was used frequently both during hospitalization (86.2% [82.6%-90.1%]) and at discharge (77.8% [72.5%-83.9%]). Calcium channel blockers were withheld from most patients with impaired left ventricular function (81.9% [73.6%-90.8%]). Lower rates were seen in the use of angiotensin-converting enzyme inhibitors at discharge (59.3% [49.2%-69.2%]); reperfusion, using thrombolytic therapy or coronary angioplasty (67.2% [59.8%-75.1%]); prescription of beta-blockers at discharge (49.5% [35.8%-61.5%]); and for smoking cessation advice (41.9% [32.8%-51.3%]). CONCLUSIONS: Substantial geographic variation exists in the treatment of patients with acute myocardial infarction, and these gaps between knowledge and practice have important consequences. Therapies with proven benefit for AMI are underused despite strong evidence that their use will result in better patient outcomes.

PMID: 10029124 [PubMed - indexed for MEDLINE]
Biometry of the University of Rostock carried out a questioning of 497 patients at the Hospital for Internal Medicine of the University Rostock to measure the patient satisfaction with the hospital. In addition, an employee questioning was performed in order to gain further information. In addition to univariate and bivariate analyses a special focus was set on the analysis of the hospitals' competitive situation, to take into account the importance of patient satisfaction as strategic success factor within the competitive situation. A competition analysis and a Key-Issue Analysis were performed. Finally, focus is on the problems of external hospital comparison and a comparison of trends of patient satisfaction at hospitals in Hamburg and Rostock was made.

PMID: 10024771 [PubMed - indexed for MEDLINE]

205: Med Care 1999 Feb;37(2):180-8


Rosenheck R, Fontana A, Stolar M.

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BACKGROUND: Although the use of quality of care indicators based on data collected for administrative purposes has become widespread, the relationship between those measures and clinical outcomes has yet to be evaluated. RESEARCH DESIGN: This study used hierarchical linear modeling to examine the relationship between 12 performance indicators derived from administrative data sets and 6 clinical outcome measures addressing symptoms, substance abuse, and social functions. SUBJECTS: Patient interviews were conducted with 4,165 veterans 4 months after their discharge from 62 specialized VA inpatient programs for treatment of Posttraumatic Stress disorder. RESULTS: Five of twelve administrative measures were significantly associated with at least one of the clinical outcome measures, which was all in the expected directions. The number of hospital readmissions during the 6 months after the index discharge was significantly related to poor outcomes on all 5 of 6 measures. Measures of readmission and post-discharge hospital use were more strongly and consistently related to outcome than to measures of access, intensity, or continuity of outpatient care. CONCLUSION: Administrative data, especially measures of hospital readmission, are significantly related to clinical outcomes. Correlations, however, are small to modest in magnitude indicating that these 2 types of performance measures assess different aspects of quality and can not be substituted for one another.

PMID: 10024122 [PubMed - indexed for MEDLINE]
Vital records for quality improvement.

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The birth certificate and death certificate are important sources of population-based data for assessing the extent of risk and the quality of perinatal outcome. The birth certificate contains the hospital of birth and many items, such as birth weight and race, that can serve as important risk adjusters for neonatal mortality. To assess mortality a second vital record, the death certificate, must be linked to the birth certificate. If the analysis is to be stratified by level of neonatal care or other hospital characteristics, a third file providing these details must also be utilized. The exact vital record formats, recording protocols, and quality control efforts are determined by and differ across each state. Even with these differences, the quality and completeness of vital records and their linkage are reasonable for population-based analyses. Although the most important vital outcome from a neonatologist's perspective is neonatal mortality, vital records can also be used to assess fetal, perinatal, postneonatal, and infant mortality. The analytic paradigm that is used in quality analysis performed on data derived from the vital record states that observed outcome is a function of risk, chance, and care. Risk is a characteristic or condition such as low birth weight or low 1-minute Apgar score that elevates the probability of an adverse outcome but is beyond the control of the agent responsible for the outcome. Using risk matrices or regression analysis one determines the expected mortality for a specific institution's case-mix. This expectation is usually based on the statewide analysis of infants with a similar risk profile. A standardized mortality ratio is calculated by dividing observed by expected mortality. A hospital with a high observed mortality (12 deaths per 1000) and an even higher expected mortality based on the risk characteristics of its neonates (24 per 1000) would have a standardized mortality ratio of 0.5. Once the effects of chance have been accounted for by statistical testing this finding could indicate that mortality in this hospital is 50% lower then expected. Although initially intended for legal and broad-based public health purposes, vital records represent an important source of data to inform perinatal quality improvement activities. The optimal usefulness of information derived from vital records requires that clinicians take an active role in assuring that data entry is complete and accurately reflects risk status, clinical factors, and outcomes. However, even a superb database will be of limited usefulness unless it is linked to an initiative that actively involves clinicians committed to quality improvement.

Publication Types:
Review
The purpose of this report is to describe the Texas Nurses’ Association Report Card Project. As part of ANA's Safety and Quality Initiative, the project was designed as a feasibility study to determine whether clinically based quality indicator data could be collected in standard ways across acute care agencies in Texas. Clinicians from 12 agencies, under leadership of the professional association (Texas Nurses’ Association), participated in this initial effort to reach consensus on clinical indicator definitions and on how to collect clinical data for each indicator. Data were collected for falls and injuries, bacteremias, pressure ulcers, skill mix, nursing hours per patient day, patient satisfaction (with nursing, hospital stay, education, and pain management), and nurse satisfaction. The process used is described, as well as the findings and the lessons learned. The importance of standard definitions and precise and standard primary sources for the data are emphasized for the phase II report card efforts to follow.

PMID: 9887863 [PubMed - indexed for MEDLINE]

Selection, measurement, and communication of critical indicators of success, for both the patient and the organization, are increasingly important for today’s health care agency. Each discipline brings expertise to bear on favorable quality and cost outcomes, including the patient and family. To make strategic decisions on both a micro (patient care) level and macro (organization or system) level, it is necessary to analyze results from a synthesized perspective. Nurse managers, physicians, administrators, governing boards, and
Payers need data presented via an instrument panel format to create understanding from multiple dimensions.

PMID: 9887861 [PubMed - indexed for MEDLINE]


Quality determinants and hospital satisfaction. Perceptions of the facility and staff might be key influencing factors.

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Perceptions of service quality ultimately affect consumer satisfaction, but objective measures of quality can be hard to come by when evaluating the quality of clinical care in a hospital. To determine if dimensions other than those found in models such as SERVQUAL were at play, the authors undertook a survey of 472 consumers, who were divided into two groups: those who had been hospital patients within the last three years (users) and those who were visitors (observers). The results suggest that facilities-related and human-factor related considerations helped shape the quality assessments of both groups, with observers generally giving higher marks to the hospitals with which they were familiar on the dimension of facilities-related quality and users expressing a less critical view of the human-factor dimension.

PMID: 10179390 [PubMed - indexed for MEDLINE]


Comment in:

The time of presentation of wound infection after cardiac surgery.

Hall JC, Hall JL, Edwards MG.

University Department of Surgery, Royal Perth Hospital, Western Australia.

Clinical experience indicates that many wound infections present relatively late after cardiac surgery. Hence, timing may be an important issue in using this outcome as a clinical indicator. A database of 1000 patients who underwent cardiac surgery was accessed to ascertain baseline characteristics, the type of surgery, and the time of presentation of wound infections. The overall incidence of wound infection was 5.9% (59/1000). Only 36% (21/59) of the wound infections
presented while the patient was in hospital. Diabetics were more likely to have a late presentation of a wound infection (the median time of presentation of wound infections (more than 17 days), i.e. 10/29 (33.4%) versus 98/971 (10.1%), Fisher's exact test P < 0.01). Wound infection can only be regarded as a reliable clinical indicator after cardiac surgery if patients are reviewed with care for 6 weeks after surgery.

PMID: 9862659 [PubMed - indexed for MEDLINE]


Comment in:

[Indicators for quality evaluation of inpatient patient care in an ENT clinic]

[Article in German]

Streppel M, Eckel HE, Goldschmidt O, Schrappe M.

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According to the law (Section 137 SGBV) in Germany, hospitals have to implement quality-assurance (QA) programs, which are now of particular importance in times of ongoing structural change in health care. External as well as internal methods of QA are well established and can serve as parameters for single processes and outcomes in most cases. However, there is still an urgent need for methods measuring the quality of total hospital performance. Indicators are powerful instruments for this purpose. They reliably reflect clinical outcome, physicians' and nurses' activities, administration and can be regarded as instruments for general hospital performance in otorhinolaryngology. We describe the process of definition, development and application of quality indicators for measuring quality in health care. Furthermore, we present a critical overview of selected indicators in otorhinolaryngology, general medical indicators and indicators concerning administrative problems. Because of current developments in German health care the application of quality assurance methods similar to the system of indicators presented is strongly recommended.

Publication Types:
Review
Review, Tutorial

PMID: 9846266 [PubMed - indexed for MEDLINE]
Women's perceptions of quality and benefits of postpartum care.

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Increased competition in the United States has led to increased interest in women's perceptions of their obstetric experience. Family-centered postpartum care (FCPPC) was originated to improve women's perceptions of care quality. This study examined differences in and the hypothesized relationship between quality and beneficence in a group receiving traditional postpartum care (TPPC) and a group receiving FCPPC in a safety-net hospital in West Tennessee. Both groups had high mean quality and beneficence scores; however, the FCPPC group's scores were significantly higher than those of the TPPC group. There was a relationship between quality and beneficence for the combined sample. The findings suggest that nurses should incorporate FCPPC approaches as a means of improving perceived quality and benefits.

Publication Types:
Clinical Trial
Controlled Clinical Trial

PMID: 9842172 [PubMed - indexed for MEDLINE]

Perceptions of quality of care and the decision to leave a practice.

vom Eigen KA, Delbanco TL, Phillips RS.
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Little is known about how patients' perceptions of quality of care influence behavioral outcomes such as decisions to change the source of their care. We surveyed patients suspected of leaving a primary care internal medicine practice at an urban teaching hospital to examine their reasons for leaving, and to investigate whether decisions to leave were related to perceived quality of care. Of 185 respondents, 27 (15%) had left to follow their doctor to another practice. The other 98 (53%) patients who had left the practice cited reasons such as a change of insurance (51), physician care (31), practice operation (27), parking and transportation (24), physician departure (19), and geographic moves (17). Responses to global assessment items and a physician care rating scale were more closely associated with the decision to leave than were ratings of other specific aspects of care.
Outpatient waiting times: indicators of hospital performance?

Croft AM, Lynch P, Smellie JS, Dickinson CJ.

Ministry of Defence, London.

We monitored outpatient waiting times at UK military hospitals over an 18-month period (September 1996-March 1998). The highest mean waiting times for Consultant appointment were in urology (19 weeks) and orthopaedics (18 weeks). The lowest mean waiting times were in psychiatry (3 weeks), ENT surgery (5 weeks) and rheumatology (6 weeks). Waiting times for surgical specialties were around 50% higher than for medical specialties. The inter-hospital variability in waiting times was 260%. Military waiting list initiatives were introduced in 4 key specialties, but the majority of these initiatives only had a temporary impact in reducing outpatient waiting times. Waiting times reflect the accessibility of a hospital's services, and are a crude but easily measured indicator of one aspect of patient care. With a military population base, outpatient waiting times should be reduced to the lowest practicable level. The keys to achieving a long-term reduction in waiting times are proper staffing levels and the efficient management of clinics.

Discharge planning and continuity of care for aged people: indicators of satisfaction and implications for practice.

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In this study using questionnaire and in-depth interviews, a sample of 67 aged participants conveyed their health experiences related to the process of discharge planning. The objectives of the study were to describe indicators of satisfaction in the process of discharge planning as identified by aged participants, their carers and key health professionals and to describe participant and carer knowledge of recovery needs, medications and availability of community services. The results of this study show that 71% of aged participants expressed satisfaction with their overall experience of hospital
discharge planning and felt well prepared for discharge. Two indicators of satisfaction for aged people were that they and their carers were involved with hospital staff in decisions about what would happen after discharge and that they received relevant information and education about their post-acute recovery needs. Findings of this study reveal effective communication and negotiation between aged people, their carers, hospital and community health professionals as key factors in continuity of care and satisfaction with discharge planning.

PMID: 9807277 [PubMed - indexed for MEDLINE]


Relationship between provider volume and mortality for carotid endarterectomies in New York state.


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BACKGROUND AND PURPOSE: The objective of this study was to assess the relationship between each of 2 provider volume measures for carotid endarterectomies (CEs) (annual hospital volume and annual surgeon volume) and in-hospital mortality. New York's Statewide Planning and Research (SPARCS) administrative database was used to identify all 28 207 patients for whom carotid endarterectomy was the principal procedure performed in New York State hospitals between January 1, 1990, and December 31, 1995. METHODS: A statistical model was developed to predict in-hospital mortality using age, admission status, and several conditions found to be associated with higher-than-average mortality. This model was then used to calculate risk-adjusted mortality rates for various intersections of hospital and surgeon volume ranges. RESULTS: Risk-adjusted in-hospital mortality ranged from 1.96% (95% confidence interval, 1.47 to 2.57) for patients having surgeons with annual CE volumes of <5 in hospitals with annual CE volumes of <100 to 0.94% (95% confidence interval, 0.73 to 1.19) for patients having surgeons with annual volumes of >/=5 in hospitals with annual CE volumes of >100. These 2 rates were statistically different. CONCLUSIONS: We conclude that the in-hospital mortality rates for carotid endarterectomies performed by surgeons with extremely low annual volumes (<5) and for hospitals with low volumes (<100) are significantly higher than the in-hospital rates of higher-volume surgeons and hospitals, even after taking preprocedural patient severity of illness into account.

PMID: 9804636 [PubMed - indexed for MEDLINE]
Public disclosure of performance information in Pennsylvania: impact on hospital charges and the views of hospital executives.

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BACKGROUND: Forty states have now passed legislation establishing governmental agencies charged with the task of gathering hospital-level data. Since 1988 all acute care hospitals in Pennsylvania have been submitting data to the Pennsylvania Health Care Cost Containment Council (PHC4). Pennsylvania's policy was designed to make patients and purchasers more informed and selective buyers of medical services, to increase the public accountability of providers of these services, and to encourage hospitals and physicians to compete more on clinical outcomes and charges. The impact of Pennsylvania's policy of public disclosure of performance information on hospital charges over time has not previously been evaluated. Nor has the importance that hospital executives assign to the publication of comparative charges and clinical outcomes information been assessed. METHODS: From 1990 through 1994 the PHC4 published a number of hospital-level performance reports (including the regional Hospital Effectiveness Reports and A Consumer's Guide to Coronary Artery Bypass Graft Surgery) containing hospital average charges, average lengths of stay, a rating of severity of illness, and two outcome measurements—morbidity and in-hospital mortality—on a total of 59 diagnosis-related groups. An 18-item survey designed to assess hospital executives' opinions of the usefulness and importance of the PHC4 information was sent to the chief executive officers at the study hospitals. DISCUSSION: There were no significant trends toward a reduction in the dispersion of charges in either category of hospitals during the study period. Most hospital executives assigned low ratings of importance to published comparative charges information; however, executives of high-competition hospitals assigned significantly higher importance ratings to the information as a whole in encouraging hospital competition based on quality.

PMID: 9770639 [PubMed - indexed for MEDLINE]
more of the basic delegable direct patient care activities in collaboration with RNs. The purpose of this study, wherein data were collected from 39 units in 11 hospitals, was to determine the relationship between different levels of nurse staffing and patient outcomes (adverse occurrences). Using and tracking the same indicators of patient quality outcomes over a significant time period in different institutions with similar patient groups would greatly enhance the usefulness of such data. Among the more surprising findings in this study was the "non-linear" relationship between the proportion of RNs in the staff mix and MAEs. As the proportion of RNs on a unit increased from 50% to 85% "the rate of MAEs declined, but as the RN proportion increased from 85% to 100% the rate of MAEs increased." Further investigations are needed to explain this finding.

PMID: 9748985 [PubMed - indexed for MEDLINE]


Reviewing the data: what ORYX means to you.

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The role of case managers in reviewing and analyzing outcomes data as part of the Joint Commission on Accreditation of Healthcare Organizations' ORYX initiative is often neglected. Case managers who become involved in reviewing ORYX data should first find out who the data vendor is and what methods are used for severity adjustment or risk adjustment. Information from ORYX can be used to evaluate areas of potential improvement in the case management program and identify ways to refine and add to existing clinical pathways.

PMID: 10185917 [PubMed - indexed for MEDLINE]


Quality indicators for out-of-hospital emergency medical services: the paramedics' perspective.

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OBJECTIVE: Out-of-hospital emergency medical services (EMS) need relevant and measurable indicators of quality. Those front-line workers who provide service directly to the customer are integral to the process of defining quality. The
authors’ objective was to obtain from paramedics, the front-line workers in the EMS system, their perspective on quality of care. METHODS: During regularly scheduled education sessions, 102 of the 140 field paramedics from a large municipal EMS system attended a presentation on total quality management. The paramedics were then assigned to focus groups and asked to identify quality indicators and provide recommendations for how they should be measured. RESULTS: Eighteen different quality indicators were identified. In addition, the paramedics suggested 17 ways to measure these proposed quality indicators. CONCLUSIONS: From the perspective of the study participants, indicators of the quality of out-of-hospital care differ from many used in traditional EMS quality assurance programs. Future studies should investigate the applicability of these indicators to the total quality management of EMS systems.

PMID: 9709316 [PubMed - indexed for MEDLINE]

221: Med Care 1998 Aug;36(8 Suppl):AS68-78

Patient and hospital characteristics associated with patient assessments of hospital obstetrical care.

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OBJECTIVES: The goals of this study were to examine the relationship of patient assessments of hospital care with patient and hospital characteristics. In addition, the authors sought to assess relationships between patient assessments and other patient-derived measures of care (eg, how much they were helped by the hospitalization and amount of pain experienced). METHODS: The authors surveyed 16,051 women (response rate, 58%) discharged after labor and delivery from 18 hospitals during the study period of 1992 to 1994. Patient assessments were obtained using a previously validated survey instrument, Patient Judgment of Hospital Quality, that includes eight scales assessing different aspects of the process of care (eg, physician care, discharge procedures) and other single item assessments (eg, overall quality). For this study, we utilized five of the scales (physician care, nursing care, information, discharge preparation, global assessments [willingness to brag, recommend or return to the hospital]). For analysis, items were rated on a five-point ordinal scale from poor to excellent. For scoring purposes, responses were transformed to linear ratings, ranging from 0 to 100 (eg, 0 = poor care, 100 = excellent care). RESULTS: In multivariable analyses, the authors found that patients who were older, white, not married, uninsured or had commercial insurance, and in better health status were significantly more likely to give higher assessments (P < 0.01), although very little of the variance in assessment scores was explained by these characteristics (2%-3%). In bivariate analyses, patient assessments were higher in nonteaching hospitals and those with fewer beds, fewer deliveries, lower
cesarean-section (C-section) rates, fewer patients with Medicaid, and higher rates of vaginal births after C-section deliveries. When these variables were utilized as independent predictors in multivariable analyses using adjusted nested linear regression (to account for clustering of patients), few of the hospital characteristics reached a level of statistical significance. Finally, correlations between the five scales and other patient assessments of quality, such as how much they were helped by the hospitalization, were statistically significant (P < 0.01) and high in magnitude, ranging from 0.47 to 0.61. CONCLUSIONS: Although hospital scores differed according to several patient and hospital characteristics, the magnitude of the associations was relatively small. The findings suggest that, with respect to obstetric care, patient assessments may represent a robust measure that can be applied to diverse hospitals and patient casemix.

PMID: 9708584 [PubMed - indexed for MEDLINE]


Using hospital performance data in quality improvement: the Cleveland Health Quality Choice experience.


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BACKGROUND: Cleveland Health Quality Choice is a regional initiative to assess hospital performance which was implemented in 1989. The project developed and validated CHOICE, a severity adjustment system that includes diagnosis-specific models for medical, surgical, and obstetrical patients which are based on clinical data abstracted from patients' medical records. METHODOLOGY: Since 1992 Cleveland Health Quality Choice has disseminated semi-annual reports that profile hospital mortality rates, lengths of stay, and cesarean section rates using the CHOICE severity adjustment models. Hospitals receive tabular and graphical representations of hospital outcomes and electronic patient-level data files that can be used to further examine outcomes in clinical subgroups. RESULTS: Four case studies illustrate how outcomes data derived from the CHOICE models led to the development of successful hospital programs to decrease lengths of stay, cesarean section rates, and hospital mortality rates. Although each case study reflected a unique approach to process improvement, several common characteristics were observed: (1) establishment of interdisciplinary process improvement teams with senior physician and nursing leadership; (2) detailed review of the process of care to identify modifiable clinical practices likely to affect outcomes; (3) development of practice guidelines based on group consensus or published recommendations that were designed to affect modifiable practices; and (4) aggressive sharing of serial data with individual
CONCLUSIONS: Although outcomes data can provide powerful insight on where to target quality improvement efforts, hospitals must identify influential and modifiable clinical practices. Such efforts are most likely to be successful if driven by interdisciplinary work groups, supported by senior clinicians and administrators, and based on locally accepted practice standards.

PMID: 9689568 [PubMed - indexed for MEDLINE]

223: Med Care 1998 Jul;36(7):955-64

Variations in standardized hospital mortality rates for six common medical diagnoses: implications for profiling hospital quality.


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OBJECTIVES: The authors determined whether standardized hospital mortality rates varied for six common medical diagnoses. METHODS: The retrospective cohort study included 89,851 patients aged 18 years and older discharged from 30 hospitals in a large metropolitan area in 1991 to 1993 with a principal diagnosis of acute myocardial infarction, congestive heart failure, pneumonia, stroke, obstructive lung disease, or gastrointestinal hemorrhage. For each hospital, standardized mortality ratios (observed/predicted mortality) were determined using validated risk-adjustment models that were based on clinical data elements abstracted from patients' hospital records. Hospitals also were categorized into quintiles on the basis of standardized mortality ratios. Correlations between standardized mortality ratios and agreement between quintile rankings were determined for each pair of diagnoses. RESULTS: Correlations between hospital-standardized mortality ratios for individual diagnoses were generally weak. For the 15 possible pairs of diagnoses, Pearson coefficients ranged from -0.10 to 0.43; only six were 0.30 or greater. Agreement between hospital quintile rankings was also generally low, with weighted kappa values ranging from -0.12 to 0.42. Three of 15 kappa values were less than 0 (ie, agreement lower than chance), and only four exceeded 0.20, the threshold for "fair" agreement. Although simulated analyses found that random variation and relatively low hospital volumes accounted for some of the difference in standardized mortality ratios for diagnoses, a large proportion of the difference remained unexplained. CONCLUSIONS: Standardized hospital mortality rates varied for six diagnoses that likely are managed by similar practitioners. Although variability may be decreased by restricting analyses to hospitals with large volumes, the findings indicate that for many hospitals, diagnosis-specific mortality rates may be an inconsistent measure of hospital quality, even when data are aggregated for multiple years.
224: Health Care Strateg Manage 1998 Aug;16(8):1, 20-3

Don't just deliver value, demonstrate it.

MacStravic S.

Except for the actual duration of an outpatient visit or inpatient stay, hospitals "own" no patients at all. How can population-based performance measures be calculated for a hospital that address the value it has delivered to its patients over the past year?

PMID: 10182989 [PubMed - indexed for MEDLINE]


Impact of risk-adjusting cesarean delivery rates when reporting hospital performance.

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CONTEXT: Hospitals and health plans are often ranked on rates of cesarean delivery, under the assumption that lower rates reflect more appropriate, more efficient care. However, most rankings do not account for patient factors that affect the likelihood of cesarean delivery. OBJECTIVE: To compare hospital cesarean delivery rates before and after adjusting for clinical risk factors that increase the likelihood of cesarean delivery. DESIGN: Retrospective cohort study. SETTING: Twenty-one hospitals in northeast Ohio. PATIENTS: A total of 26127 women without prior cesarean deliveries admitted for labor and delivery from January 1993 through June 1995. MAIN OUTCOME MEASURES: Hospital rankings based on observed and risk-adjusted cesarean delivery rates. RESULTS: The overall cesarean delivery rate was 15.9% and varied (P<.001) from 6.3% to 26.5% in individual hospitals. Adjusted rates varied from 8.4% to 22.0%. The correlation between unadjusted and adjusted hospital rankings (ie, 1-21) was only modest (R=0.35, P=.12). Whereas 7 hospitals were classified as outliers (ie, had rates higher or lower [P<.05 than overall rate) on the basis of both unadjusted and adjusted rates, outlier status changed for 5 hospitals (24%), including 2 that changed from outliers to nonoutliers, 2 that changed from nonoutliers to outliers, and 1 that changed from a high outlier to a low
outlier. CONCLUSIONS: Cesarean delivery rates varied across hospitals in a single metropolitan region. However, rankings that fail to account for clinical factors that increase the risk of cesarean delivery may be methodologically biased and misleading to the public.

PMID: 9643860 [PubMed - indexed for MEDLINE]


Comment in:
BMJ. 1999 Jan 9;318(7176):128.


Parry GJ, Gould CR, McCabe CJ, Tarnow-Mordi WO.

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OBJECTIVE: To assess whether crude league tables of mortality and league tables of risk adjusted mortality accurately reflect the performance of hospitals.

DESIGN: Longitudinal study of mortality occurring in hospital. SETTING: 9 neonatal intensive care units in the United Kingdom. SUBJECTS: 2671 very low birth weight or preterm infants admitted to neonatal intensive care units between 1988 and 1994. MAIN OUTCOME MEASURES: Crude hospital mortality and hospital mortality adjusted using the clinical risk index for babies (CRIB) score. RESULTS: Hospitals had wide and overlapping confidence intervals when ranked by mortality in annual league tables; this made it impossible to discriminate between hospitals reliably. In most years there was no significant difference between hospitals, only random variation. The apparent performance of individual hospitals fluctuated substantially from year to year. CONCLUSIONS: Annual league tables are not reliable indicators of performance or best practice; they do not reflect consistent differences between hospitals. Any action prompted by the annual league tables would have been equally likely to have been beneficial, detrimental, or irrelevant. Mortality should be compared between groups of hospitals using specific criteria-such as differences in the volume of patients, staffing policy, training of staff, or aspects of clinical practice-after adjusting for risk. This will produce more reliable estimates with narrower confidence intervals, and more reliable and rapid conclusions.

PMID: 9641927 [PubMed - indexed for MEDLINE]

Does considering severity of illness improve interpretation of patient satisfaction data?

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With the emergence of new, relatively low-cost code-based severity indexes, this question arises: Do complex descriptions of patient population in terms of severity yield a clearer picture of patients' opinions about hospital care and service? Consumers and third-party payers of healthcare are using patient satisfaction data with increasing frequency to evaluate the quality of care that hospitals provide. Insurers also use satisfaction data, when they are available, for contracting and ensuring provider accountability. The study described here examines whether the all patient refined-diagnosis related groups (APR-DRG) severity-of-illness rating system, in particular, can explain the variability in inpatient satisfaction ratings independently of patient demographics and clinical events. Multiple logistic regression was used on a data set of 3,720 patient records from one tertiary care facility, and model terms were fitted on the basis of reason for admission, year, gender, length of stay, age, and severity. The findings were that age and reason for admission were consistent predictors of high satisfaction on 14 survey items. APR-DRG severity was not a significant factor. Length of stay made a small but significant contribution on three items related to clinical quality.

PMID: 10181904 [PubMed - indexed for MEDLINE]

228: J Healthc Qual 1998 Jul-Aug;20(4):12-20; quiz 21, 52

Comparative data analysis using collaborative skilled nursing/long-term care indicator assessment.

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This article describes a process developed by Eastern Mercy Health System (EMHS), headquartered in Radnor, PA, to identify opportunities for quality improvement using defined outcome-based indicators in skilled nursing and long-term care (SN/LTC). The model is built on collaboration among the system's freestanding and hospital-based facilities; it includes a cyclical approach to the exchange of information. The experiences of three of the system's members reflect how each has realized measurable benefits by applying to their unique settings the lessons learned through the collaborative process.

PMID: 10181901 [PubMed - indexed for MEDLINE]
Nursing Outcomes Classification: implications for nursing information systems and the computer-based patient record.

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Quality improvement, measurement, and accountability pervade all health care, including the agendas of nursing, other care providers, and consumer groups. One new face of quality is unequivocal: data will be more equitably shared among all groups for data-based quality judgments. This will emphasize quality more than cost with greater involvement of the citizens compared to health care providers, payers, and health care product suppliers. Emphasis on quality will allow patients to have a voice heard and amplified through the implementation of patient-centered outcomes in the computerized patient care record. This article describes the implications of the Nursing Outcomes Classification (NOC) for nursing information systems and the computer-based patient record.

Publication Types:
Review
Review, Tutorial

PMID: 9610011 [PubMed - indexed for MEDLINE]

The use of ACE inhibitors for congestive heart failure among Delaware Medicare beneficiaries.

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The analysis upon which this publication is based was performed under Contract Number 500-96-P603, entitled, Utilization and Quality Control Peer Review Organization for the State of Delaware, as sponsored by the Health Care Financing Administration (HCFA), Department of Health and Human Services. The
OBJECTIVE: The purpose of this study was to describe relationships among adverse patient occurrences aggregated at the unit level of measurement. Relationships between adverse occurrences and a patient acuity measure were also described. BACKGROUND: Adverse patient occurrence data have been traditionally a major indicator of quality care in hospitals; however, few studies have examined relationships among these indicators or the usefulness of these indicators for assessing the quality of nursing care. METHODS: A correlational design was used to examine and describe patterns of relationships among in-patient units in a tertiary care hospital. The results demonstrated positive correlations between medication error rates and patient falls; these adverse occurrences correlated negatively with pressure ulcers, infections, patient complaints, and death. Pressure ulcers, infections, patient complaints and death intercorrelated positively and also related positively to patient acuity levels. RESULTS: An examination of these same rates for a subset of units with similar patient acuity levels revealed that most of the interrelationships among the entire set of adverse occurrence indicators were positive. When patient acuity was taken into account, these adverse outcomes appeared to indicate some common underlying characteristic of the units, such as quality of nursing care. CONCLUSIONS: This study suggests a relationship between the adverse occurrences that were correlated (pressure ulcers, patient complaints, infection, and death) and the severity of patient illness. Medication error rates and patient fall rates were not correlated with patient acuity and are more likely to indicate quality of nursing care across all types of units.
Cesarean section rates: effects of participation in a performance measurement project.

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BACKGROUND: A decade-old indicator-based research initiative, Maryland's Quality Indicator (QI) Project, analyzed data for cesarean section rates among its approximately 1,100 voluntarily participating hospitals. It was posited that continuous participation in this performance measurement initiative would be associated with decreased primary and repeat C-section rates. METHODS: A retrospective study compared a group of 110 hospitals that reported on the C-section indicator continuously between 1991 and 1996 with a group of hospitals that did not continuously report data on the C-section rate. RESULTS: Among the 110 continuously participating hospitals in the QI Project, the total C-section rate declined from 22.5% in 1991 to 19.4% in 1996 (p < .01). For this same group, the primary C-section rate declined from 15.8% to 13.9% (p < .01), and the repeat C-section rate declined from 75.0% to 61.2% between 1991 and 1996 (p < .01). The comparison group of 957 hospitals that did not continuously participate in C-section reporting between 1991 and 1996 did not experience a statistically significant difference in total C-section rates during this time (from 21.2% in 1991 to 20.7% in 1996). In attempting to investigate alternative explanations for these results, a subsequent analysis of eight hospital variables potentially related to cesarean delivery rates found no significant differences between the two groups. CONCLUSIONS: This study provides support for the positive association between continuous participation in a performance measurement project and performance improvement.

Publication Types:
Multicenter Study

PMID: 9589331 [PubMed - indexed for MEDLINE]
Home care organizations and hospices increasingly need to have objective, quantifiable information about their own performance that they can use externally to demonstrate accountability. The ORYX initiative will help organizations meet this need.

PMID: 10181305 [PubMed - indexed for MEDLINE]


Erratum in:

Quality indicators using hospital discharge data: state and national applications.

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BACKGROUND: Demand for information about the quality of health care has escalated. Yet many organizations lack well-specified quality measures, statistical expertise, or the requisite data to produce such information. The Healthcare Cost and Utilization Project Quality Indicators (HCUP QIs) represent one approach to measuring health care quality using readily available data on hospital inpatients. METHODS: The HCUP QIs, developed in 1994, address clinical performance rather than other dimensions of quality such as satisfaction or efficiency. The 33 indicators produce rates that represent measures of outcomes (mortality and complications), utilization, and access. In lieu of complex multivariate techniques, two methods were used: (1) restrictions in defining patient subgroups to isolate homogeneous at-risk populations and (2) standardization when populations are diverse. Stratified analyses are recommended when patient or hospital factors are believed to influence the outcome. A simple method for making statistical comparisons to national rates was developed. The HCUP QI software, available in both mainframe and microcomputer applications, have enabled organizations to use their own data to produce comparative statistics and examine trends over time. Results summarized at the individual hospital or aggregate level are being used to stimulate continuous quality improvement initiatives. CONCLUSIONS: The HCUP QIs offer a low-cost alternative for organizations that have access to administrative data. Current users include hospital associations, state health departments, statewide data organizations, and individual hospitals. Although the HCUP QIs are intended to serve as indicators, not definitive measures, of quality, they were designed to highlight quality concerns and to target areas for more intensive study.

Publication Types:
Review
Review, Tutorial
OBJECTIVES: Despite the popularity of risk-adjusted outcomes as quality of health care indicators, their instability with time and their inability to provide reliable comparisons of small volume providers have raised questions about the feasibility and credibility of using these measures. In this article the authors describe a new analytic strategy to address these problems by examining risk-adjusted mortality with time, "Time Series Monitors of Outcome" (TSMO), and its application to cardiac surgery performed throughout the Department of Veterans Affairs between April 1987 and September 1992. METHODS: Expected operative mortality for 24,029 patients undergoing coronary artery bypass surgery at all 43 centers performing this procedure was estimated using a logistic regression model to adjust for patient-specific risk factors. The ratio of observed-to-expected operative mortality was calculated for each hospital for each of the 11 6-month periods. Poisson regression models were used to identify high and low outlier hospitals based on significant deviation from the 5.5 year overall mean and/or the individual hospital's trend of observed-to-expected ratios with time. RESULTS: This method identified four high and one low outlier hospitals based on significant deviations from the overall mean and three upward and seven downward trending outlier hospitals based on significant deviations in trend with time. A significant downward trend in observed-to-expected ratios of 4% per year also was observed for all coronary artery bypass graft procedures performed throughout the Department of Veterans Affairs during the last 5.5 year period. CONCLUSIONS: Time Series Monitors of Outcome should help reduce misclassification of outliers due to random variation in outcomes as well as provide more reliable comparative information from which to evaluate provider performance.
How Pennsylvania hospitals have responded to publicly released reports on coronary artery bypass graft surgery.

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BACKGROUND: A Consumer Guide to Coronary Artery Bypass Graft Surgery, published annually since 1992 by the Pennsylvania Health Care Cost Containment Council, compares the outcomes and charges for the state's hospitals and surgeons providing this surgery. To determine whether performance data caused hospitals to change their policies and practices, hospitals were surveyed in Pennsylvania, where the state releases annual coronary artery bypass graft (CABG) outcomes data and, as a control, in New Jersey, where the state does not release these data. METHODS: Key informants representing hospitals, health insurance payers, health maintenance organizations, and purchasers were asked to list specific changes made because of comparative performance data released in public reports. Focus groups were conducted and surveys were then developed and administered to samples of hospitals, payers, and purchasers in both states. RESULTS: The results suggested, for example, that access to performance information encouraged hospitals to implement new approaches to marketing their CABG services. Thirty-eight percent of Pennsylvania CABG hospitals reported using performance information to recruit staff thoracic surgeons and residents, compared with none in New Jersey. For the most frequently initiated changes in patient care, the Pennsylvania hospitals depended on performance information released by a "government agency" to a much greater degree than did the hospitals in New Jersey. DISCUSSION: The results suggest that public release of performance information has encouraged hospitals in Pennsylvania to make changes in the areas of marketing, governance, and clinical care and that the impact of the release of public data on performance was greater in Pennsylvania hospitals than New Jersey hospitals.

PMID: 9494873 [PubMed - indexed for MEDLINE]


The California Hospital Outcomes Project: how useful is California's report card for quality improvement?

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BACKGROUND: Hospital report cards have proliferated in the 1990s but remain
controversial because risk-adjusted outcomes measures are complex and have uncertain validity. Despite this controversy, little is known about their value and impact. METHODS: A two-stage survey of hospital leaders in California was undertaken in September 1996 and July 1997 to explore how the 1996 reports and data from the California Hospital Outcomes Project (CHOP) were used to improve organizations' performance. In the first stage, a questionnaire was mailed to the chief executive officer of each hospital in the report. In the second stage, a stratified random sample of the respondents who indicated a willingness to provide further information was interviewed. RESULTS: Thirty-nine interviews were completed, representing 87% yield after replacing informants who failed to return six messages. About three-quarters of the interviewees found some aspect of the CHOP report to be useful, especially for benchmarking performance, improving ICD-9-CM (International Classification of Diseases, 9th Revision, Clinical Modification) coding, and educating physicians about documentation and clinical pathways. The most common criticisms were that the reports were not timely and described death rates without providing practical information about the process of care. DISCUSSION: Although the 1996 CHOP reports and data were widely disseminated within hospitals, most reported uses did not directly affect the process of care for patients with acute myocardial infarction. This finding reflects two critical weaknesses of the project--nontimely data and lack of information about the process of care. Nevertheless, hospital quality managers recognize that public report cards are here to stay, and some carefully studied their outcomes data to identify areas for improvement.

PMID: 9494872 [PubMed - indexed for MEDLINE]


Variation in mortality among seven hemodialysis centers as a quality indicator.

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OBJECTIVES: To identify patient attributes that were associated with increased mortality; variables that were associated with process of care that were correlated with mortality; and outlier centers after adjustment for patient attributes. DESIGN: Standard interviews were conducted by trained nurses with all patients. Detailed information regarding primary renal diagnosis, comorbidity, and results of laboratory tests were obtained from the medical charts. The vital status of the patients was obtained from the records of each of the centers. We used the Cox hazard method to identify variables that correlated with a 1-year mortality. Centers with observed mortality exceeding the 95% confidence interval (CI95) of the expected probability of death were marked as outliers. SETTING: Seven dialysis centers located in large teaching hospitals in Israel. PATIENTS: The current study included patients > 16 years of
age who had undergone hemodialysis > 4 weeks prior to the day of data collection. RESULTS: The study included 564 patients. Significant differences were found in patient demographics and process variables among the centers. The following variables correlated with mortality: diabetes (odds ratio [OR], 2.03; CI95, 1.28-3.21); ischemic heart disease (OR, 2.2; CI95, 1.39-3.49); each year of age (OR, 1.04; CI95, 1.02-1.06); each 1 g% of albumin (OR, 0.51; CI95, 0.30-0.86). The average observed mortality in all centers was 17.4%. After adjustment for casemix, one center showed excess mortality (24% observed compared to 15% expected after adjustment for patient attributes; CI95, 6.2-23.7). CONCLUSIONS: The ability to compare mortality rates among dialysis centers to detect possible quality outliers depends on thorough consideration of patient attributes and random variation.

PMID: 10180125 [PubMed - indexed for MEDLINE]

239: Qual Manag Health Care 1997 Fall;6(1):61-9
Measuring the quality of inpatient health care.

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A validated case mix and severity adjusted performance measurement system and methodology are presented. Using this methodology in a user-friendly interactive interface, those who are interested in the performance of a hospital or providers within a hospital can easily identify areas for quality improvement.

PMID: 10176409 [PubMed - indexed for MEDLINE]

Improving the statistical approach to health care provider profiling.

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This paper reviews and compares existing statistical methods for profiling health care providers. It recommends improvements that are based on the use of better statistical models and the adoption of more realistic, medically based criteria for judging the performance of health care providers. Unlike most profiling methods, the proposed hierarchical models allow the probability of acceptable provider performance to be calculated; thus, they can answer such
questions as, "What is the probability that a given hospital’s true mortality rate for cardiac surgery patients exceeded 3.33% last year?" The commonly encountered problems of regression-to-the-mean bias and small caseloads can be handled by using hierarchical models to extract more information from profiling data.

PMID: 9382395 [PubMed - indexed for MEDLINE]


The role of wound infection as a clinical indicator after colorectal surgery.

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The objective of this study was to evaluate the role of wound infection as a clinical indicator after colorectal surgery. We assessed 553 patients who were entered into clinical trials at Royal Perth Hospital. In the clinical trials, the incidence of wound infection after colorectal surgery was 12%, however, this rose to 20% for patients over 60 years of age and with an American Society of Anaesthesia score of greater than 2. One-third of these infections occurred following discharge from hospital. We found that the incidence of wound infection following colorectal surgery was dependent upon patient characteristics, and many infections occurred after discharge from hospital. Collecting this data accurately is time consuming and expensive. Therefore, for this reason alone, wound infection may not be an appropriate clinical indicator for patients undergoing colorectal surgery.

PMID: 9427190 [PubMed - indexed for MEDLINE]


Using clinical indicators to change clinical practice.

Portelli R, Williams J, Collopy B.


A study of the qualitative information received by the Australian Council on Healthcare Standards (ACHS) Care Evaluation Program (CEP) in 1993 showed that the monitoring of clinical indicators had the potential to stimulate a variety of quality activities within health-care organizations. To determine whether the potential for improved patient outcomes has continued, the ACHS CEP conducted a
survey of those organizations which submitted clinical indicator data as part of their accreditation survey in 1995. Analysis of the qualitative data received showed that change was reported on 505 occasions by organizations monitoring the hospital-wide medical and obstetrics and gynaecology clinical indicator sets. Details of 251 reported changes were received through a follow-up survey. These details provide evidence that clinical indicators are being used to implement changes in clinical practice to improve the quality of patient care.

PMID: 9427189 [PubMed - indexed for MEDLINE]


Commentary: inaccurate data on the quality of care may do more harm than good--an alternative approach is required.

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Recently the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) announced that it would integrate the use of clinical outcomes and other performance measures into the accreditation process through its new “ORYX" program. This JCAHO initiative represents a significant new development that will include more than 100 different performance measurement systems, most of which are available through commercial firms and outside organizations. However, we see some potential problems with this new initiative. This is because some indicators recommended by JCAHO may be questionable due to the fact they are based on flawed methodologies that could result in biased and confounded data. To illustrate some of the potential adverse effects that could result from using such data to compare health care providers and facilities, we discuss some common problems associated with several widely available performance measurement systems. We then suggest an alternative approach that could potentially avoid many of these problems in the future.

PMID: 9385731 [PubMed - indexed for MEDLINE]

244: JAMA 1997 Dec 17;278(23):2080-4

Comment in:

Quality of care, process, and outcomes in elderly patients with pneumonia.
A gência □Nacional□ de □Vigilância □Sanitária
Gerência de Avaliação em Serviços de Saúde


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CONTEXT: Pneumonia is a frequent cause of hospitalization and death among elderly patients, but the relationships between processes of care for pneumonia and outcomes are uncertain, making quality improvement a challenge. OBJECTIVES: To assess quality of care for Medicare patients hospitalized with pneumonia and to determine whether process of care performance is associated with lower 30-day mortality. DESIGN: Multicenter retrospective cohort study with medical record review. SETTING: A total of 3555 acute care hospitals throughout the United States. PATIENTS: A total of 14069 patients at least 65 years old hospitalized with pneumonia. MAIN OUTCOME MEASURES: Four processes of care: time from hospital arrival to initial antibiotic administration; blood culture collection before initial hospital antibiotics; blood culture collection within 24 hours of hospital arrival; and oxygenation assessment within 24 hours of hospital arrival. Associations between processes of care and 30-day mortality were determined with logistic regression analysis. RESULTS: National estimates of process-of-care performance were antibiotic administration within 8 hours of hospital arrival, 75.5% (95% confidence interval [CI], 73.1-77.9); blood cultures before antibiotics, 57.3% (95% CI, 54.5-60.1); initial blood culture collection, 68.7% (95% CI, 66.2-71.2); and initial oxygenation assessment, 89.3% (95% CI, 87.5-90.9). Lower 30-day mortality was associated with antibiotic administration within 8 hours of hospital arrival (odds ratio [OR], 0.85; 95% CI, 0.75-0.96) and blood culture collection within 24 hours of arrival (OR, 0.90; 95% CI, 0.81-1.00). State and territory performance estimates varied from 49.0% to 89.7% for antibiotics given within 8 hours and from 45.6% to 82.6% for blood cultures drawn within 24 hours. CONCLUSIONS: Administering antibiotics within 8 hours of hospital arrival and collecting blood cultures within 24 hours were associated with improved survival. The fact that states varied widely in the performance of these measures suggests that opportunities exist to improve hospital care of elderly patients with pneumonia.

Publication Types:
Multicenter Study

PMID: 9403422 [PubMed - indexed for MEDLINE]


Four steps to creating quality indicators across sites.

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As multi-hospital systems develop, the demand to compare performance across sites has become an organizational imperative. This article describes the process a six-hospital system used to create clinically reliable and valid quality assessment indicators.

PMID: 9397635 [PubMed - indexed for MEDLINE]


Treatment adequacy for HIV-related pneumocystis pneumonia: quality measures for inpatient care.

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To develop and evaluate severity-adjusted indicators of treatment timeliness and adequacy for inpatient care of first episode of HIV-related pneumocystis pneumonia, a retrospective cohort study (n = 414) using medical record review was conducted in six California medical centers (1 January 1983-30 June 1987). Measures included patient baseline characteristics and complexity, process-of-care indicators (delay in treatment initiation and proportion of adequate treatment delivered), and overall survival of hospitalization and survival without respiratory failure. Logistic regression models of severity were developed among optimally treated patients and cross-validated. Exposure to medication with pneumocystis activity within 30 days prior to admission was protective. After controlling for pre-admission medication and severity, the average proportion of adequate pneumocystis medication delivered during the first 7 and 30 days were significant predictors of outcome in all models. Delay in treatment initiation, while not a statistically significant predictor, was associated with baseline severity. Summary measures of treatment adequacy show promise as process-of-care indicators.

Publication Types:
Multicenter Study

PMID: 9394203 [PubMed - indexed for MEDLINE]


The policy implications of using hospital and physician volumes as "indicators" of quality of care in a changing health care environment.
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There is growing interest in the quality of health care and in using quality measures to direct patients to hospitals and providers offering high quality, low cost health care. The dilemma is that, while there is an increasing need for quality indicators as a result of a changing health care environment, this changing environment has important implications for the use of some of these measures. Since the 1970s, a growing body of research in the U.S. has addressed the empirical relationship between the number of patients with a specific diagnosis of surgical procedure and their outcomes after treatment in a particular hospital or by a particular physician (“volume-outcome” studies). In this paper, we examine the policy implications of using hospital and physician volume information as an “indicator” of quality in a rapidly changing health care environment with new players and new incentives. We begin by describing the evolution of the use of volumes within both regulatory and market-oriented contexts in the U.S. We then discuss policy considerations and cautions in using volumes, along with suggestions for future research. Our purpose is to point out potential problems and clarify confusions about the use of volumes, so that policymakers and practitioners can be sensitive to the potential minefields they are traversing.

PMID: 9394202 [PubMed - indexed for MEDLINE]


Employee perceptions of 'profiled' customers' expectations.

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There has been an increasing interest in the issues of quality in service delivery. The SERVQUAL theory addresses these issues and identifies the causes of service quality problems. The practical, managerial implications of the SERVQUAL theory and model are currently being addressed (Reidenbach and Sandifer-Smallwood, 1990; Woodside, Frey and Daly, 1989; Mangold and Babakus, 1991; Webster, 1989; Day, 1992). A handful of these articles have specifically addressed the managemental implications of the SERVQUAL Gap 1 analysis: the identification of employee and management perceptions of consumer expectations (Mangold and Babakus, 1991; Headley and Choi, 1992; Bebko, 1994). Previously, none of the research had mentioned the potential problems inherent in Gap 1 analysis when the organization is faced with several "types" of customers, each
with possibly different expectations. Consequently, the results of the GAP 1 analysis may not represent the true picture of employee perceptions of consumer expectations. This would have implications for the validity of the SERVQUAL instrument in assessing a service’s ability to deliver quality to consumers.

PMID: 10186252 [PubMed - indexed for MEDLINE]

Quality assessment of discharge letters in a French university hospital.
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The quality of discharge letters has been evaluated in order to initiate a process of improved communications between the hospital and general practitioners. From each of 37 volunteer clinical departments of the hospital, a random sample of 30 stays was selected among the hospitalisations for one year. The quality of discharge letters was assessed according to recipients’ needs and to French legislation. In total, 1,024 medical records were relevant and were analysed. This study showed deficiencies in management of discharge letters in the hospital. It constitutes the first step of a quality improvement process based on the awareness of concerned actors through information feedback and the follow-up of specific indicators.

PMID: 10185321 [PubMed - indexed for MEDLINE]

Hospital accreditation in Europe.
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Health service accreditation systems have explicit standards for organisation against which the participating hospital assesses itself before a structured visit by outside "surveyors". They submit a written report back to the hospital with commendations and recommendations for development prior to a follow-up survey. Accreditation may be awarded for a fixed term or may be with held by an independent assessment Board if the hospital does not meet a defined threshold of standards. In Europe, some government and medical organisations initially distanced themselves from the pilot hospital wide programmes, arguing that they would cost too much and undermine management, or that they were irrelevant to
clinical practice. But gradually it became obvious that accreditation worked for hospitals; purchasers and insurers saw its potential for quality and resource management; and professional bodies recognised the links between clinical training, practice and outcome and the environment in which health care is provided. If nothing else, it offered a multi-professional bridge between the existing numerous fragmented systems such as inspecting (statutory safety), visiting (professional training), and monitoring (service contracts). The introduction of accreditation appears to benefit hospitals in many different countries and health systems and provides a vehicle for integrated quality management which is visible to funding agencies, government and the public. Interest is growing within Europe.

PMID: 10179643 [PubMed - indexed for MEDLINE]


Integrating key performance indicator measurements into the accreditation process using ORYX.

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The Joint Commission on Accreditation of Healthcare Organizations introduced the ORYX initiative in February 1997 to integrate outcomes and performance measurement into the Joint Commission on Accreditation of Healthcare Organizations survey process. A survey was mailed to laboratories accredited by the Joint Commission to assess performance measurement system participation, the results of which will be available in the first quarter of 1998. This article discusses the requirements of the initiative as well as some of the problems that have been encountered.

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252: JAMA  1997 Nov 19;278(19):1579-84

Consumer reports in health care. Do they make a difference in patient care?

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CONTEXT: Consumer reports in health care are a relatively recent phenomenon. Primarily designed to assist consumers in making more informed decisions about
their personal health care, they appear to have an important by-product-they led to positive changes in the behavior of clinicians and health care delivery

organizations. While there has been much speculation on their impact on health care consumer behavior, consumer reports offer an effective strategy in improving the quality of patient care. OBJECTIVE: To examine the impact of an obstetrics consumer report developed and issued by the Missouri Department of Health on hospital behavior. DESIGN AND SETTING: A retrospective study of hospital behavior using both primary survey and secondary clinical data. PARTICIPANTS: Consumer reports were issued in 1993 to all Missouri hospitals providing obstetrical services (n=90). A survey was conducted a year later, and the results were analyzed with other available data to determine the effect of the report. Two hospitals discontinued obstetrical services by the time of the survey; of the remaining 88 hospitals, 82 (93%) responded to the survey. MAIN OUTCOME MEASURES: The following outcomes were examined: (1) number and percentage of hospitals that previously did not have services at the time report was issued, but had, or planned to have, services after a guide was published; (2) the percentage of obstetrical policies that were changed, planned to change, or are under discussion for change (car seat program, obstetrical follow-up services, formal transfer agreement, nurse educator for breast-feeding, and availability of tubal ligations); and (3) clinical outcomes, including satisfaction, appropriateness of charges, and the rates of cesarean delivery, high-risk infant transfer, ultrasound, vaginal birth after cesarean, very low birth weight, and newborn death. RESULTS: Within 1 year of the report, approximately 50% of hospitals that did not have car seat programs, formal transfer agreements, or nurse educators for breast-feeding prior to the report either instituted or planned to institute these services. Hospitals in competitive markets that did not offer one of these services at the time of the report were more likely to institute a service and/or were about twice as likely to consider improving several indicators. Clinical outcome indicators all improved in the expected direction. CONCLUSION: Public release of consumer reports may be useful not only in assisting consumers to make informed health care choices, but also in facilitating improvement in the quality of hospital services offered and care provided. Changes occur especially in competitive markets.

PMID: 9370503 [PubMed - indexed for MEDLINE]

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Technique for efficient information retrieval in outpatient systems.

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In the era of managed care, quality of medical care standards continue to materialize. Most of these standards have long, cumbersome, and complex rules. In light of such problematic rules, efficient ways of retrieving information for a computerized score card are needed. A technique for making such rules less difficult to use is to create Boolean expressions for each quality of care indicator. These Boolean expressions partition the indicators into key words and phrases so that information can be retrieved readily from a system. This study incorporates an outpatient clinical information system of a major university hospital. The technique used to retrieve information and related issues are discussed in the following text.

PMID: 9357592 [PubMed - indexed for MEDLINE]


Risk adjustment of the postoperative morbidity rate for the comparative assessment of the quality of surgical care: results of the National Veterans Affairs Surgical Risk Study.


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BACKGROUND: The National Veterans Affairs Surgical Risk Study was designed to collect reliable, valid data on patient risk and outcomes for major surgery in the Veterans Health Administration and to report comparative risk-adjusted postoperative mortality and morbidity rates for surgical services in the Veterans Health Administration. STUDY DESIGN: This was a cohort study conducted at 44 Veterans Affairs Medical Centers closely affiliated with university medical centers. Included were 87,078 major noncardiac operations performed under general, spinal, or epidural anesthesia between October 1, 1991, and December 31, 1993. The main outcomes measures in this report are 21 postoperative adverse events (morbidity) occurring within 30 days after the index procedure. Multivariable logistic regression risk-adjustment models for all operations and for eight surgical subspecialties were developed. RESULTS: Patient risk factors predictive of postoperative morbidity included serum albumin level, American Society of Anesthesia class, the complexity of the operation, and 17 other preoperative risk variables. Wide variation in the unadjusted rates of one or more postoperative morbidities for all operations was observed across the 44 hospitals (7.4-28.4%). Risk-adjusted observed-to-expected ratios ranged from 0.49 to 1.46. The Spearman rank order correlation between the ranking of the hospitals based on unadjusted morbidity rates and risk-adjusted observed-to-expected ratios for all operations was 0.87. There was little or no correlation between the rank order of the hospitals by risk-adjusted morbidity and risk-adjusted mortality. CONCLUSIONS: The Department of Veterans Affairs has
successfully implemented a system for the prospective collection and comparative reporting of postoperative mortality and morbidity rates after major noncardiac operations. Risk adjustment had only a modest effect on the rank order of the hospitals.

Publication Types:
Multicenter Study

PMID: 9328381 [PubMed - indexed for MEDLINE]


Risk adjustment of the postoperative mortality rate for the comparative assessment of the quality of surgical care: results of the National Veterans Affairs Surgical Risk Study.


Brockton/West Roxbury VA Medical Center, West Roxbury, MA 02132, USA.

BACKGROUND: The National Veterans Affairs Surgical Risk Study was designed to collect reliable, valid data on patient risk and outcomes for major surgery in the Veterans Health Administration and to report comparative risk-adjusted postoperative mortality rates for surgical services in Veterans Health Administration. STUDY DESIGN: This cohort study was conducted in 44 Veterans Affairs Medical Centers. Included were 87,078 major noncardiac operations performed under general, spinal, or epidural anesthesia between October 1, 1991, and December 31, 1993. The main outcomes measure was all-cause mortality within 30 days after the index procedure. Multivariable logistic regression risk-adjustment models for all operations and for eight surgical subspecialties were developed. Risk-adjusted surgical mortality rates were expressed as observed-to-expected ratios and were compared with unadjusted 30-day postoperative mortality rates. RESULTS: Patient risk factors predictive of postoperative mortality included serum albumin level, American Society of Anesthesia class, emergency operation, and 31 additional preoperative variables. Considerable variability in unadjusted mortality rates for all operations was observed across the 44 hospitals (1.2-5.4%). After risk adjustment, observed-to-expected ratios ranged from 0.49 to 1.53. Rank order correlation of the hospitals by unadjusted and risk-adjusted mortality rates for all operations was 0.64. Ninety-three percent of the hospitals changed rank after risk adjustment, 50% by more than 5 and 25% by more than 10. CONCLUSIONS: The Department of Veterans Affairs has successfully implemented a system for the prospective collection and comparative reporting of risk-adjusted postoperative mortality rates after major noncardiac operations. Risk adjustment had an
appreciable impact on the rank ordering of the hospitals and provided a means for monitoring and potentially improving the quality of surgical care.

Publication Types:
Multicenter Study

PMID: 9328380 [PubMed - indexed for MEDLINE]


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BACKGROUND: Risk-adjusted mortality and morbidity rates are often used as measures of the quality of surgical care. This study was conducted to determine the validity of risk-adjusted surgical morbidity and mortality rates as measures of quality of care by assessing the process and structure of care in surgical services with higher-than-expected and lower-than-expected risk-adjusted 30-day mortality and morbidity rates. STUDY DESIGN: A structural survey of 44 Veterans Affairs Medical Center surgical services and site visits to 20 surgical services with higher-than-expected and lower-than-expected risk-adjusted outcomes were conducted. Main outcome measures included assessment of technology and equipment, technical competence of staff, leadership, relationship with other services, monitoring of quality of care, coordination of work, relationship with affiliated institutions, and overall quality of care. RESULTS: Surgical services with lower-than-expected risk-adjusted surgical morbidity and mortality rates had significantly more equipment available in surgical intensive care units than did services with higher-than-expected outcomes (4.3 versus 2.9, p < 0.05). Site-visitor ratings of overall quality of care were significantly higher for surgical services with lower-than-expected morbidity and mortality rates (6.1 versus 4.5 for high outliers, p < 0.05); technology and equipment were rated significantly better among low-outlier services (7.1 versus 4.8 for high outliers, p < 0.001). Masked site-visit teams correctly predicted the outlier status (high versus low) of 17 of the 20 surgical services visited (p < 0.001). CONCLUSIONS: Significant differences in several dimensions of process and structure of the delivery of surgical care are associated with differences in risk-adjusted surgical morbidity and mortality rates among 44 Veterans Affairs Medical Centers.

Publication Types:
Multicenter Study

PMID: 9328382 [PubMed - indexed for MEDLINE]
Validating quality indicators for hospital care.

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BACKGROUND: Many of the indicators used to monitor the quality of hospital care are resource intensive and ineffective. Furthermore, current efforts to develop new indicators for report cards are generally directed at the evaluation of health plans and are not constructed to help providers (physician groups, hospitals, and health plans that contract to provide care to patients) find and fix problems with the quality of care at their organizations. FOUR QUESTIONS: Before using an indicator, four questions should be posed: (1) When cases identified by the indicator are examined, can one find a set of definable and preventable processes of care known to lead to a bad outcome? (2) Can a review instrument be created that will allow providers to identify which process problems are present? (3) Are there substantially more process problems in those cases identified by the indicator than in those cases not identified by the indicator, and can the sensitivity and specificity of the indicator be defined? and (4) Is the indicator primarily useful for quality improvement efforts by a provider, or is it also useful as an external measure of quality across providers? A FOUR-STEP FRAMEWORK: Four corresponding steps comprise an efficient validation method to produce indicators that detect deficiencies in an important process-outcome continuum, help produce the tools to find the deficiencies, document the efficiency of using the indicator to search for process problems, and define the appropriate use of the indicator. Use of such validated indicators, and the information about their utility, would allow providers to optimize the impact of money spent on quality improvement efforts.

Publication Types:
Review
Review, Tutorial

PMID: 9343752 [PubMed - indexed for MEDLINE]

JCAHO is adding numbers to inspection criteria.
The Joint Commission on Accreditation of Healthcare Organizations in Oakbrook Terrace, IL, has begun phasing in new accreditation requirements that, for the
first time, look at quality of care. Health systems are expected to have little or no difficulty meeting early reporting requirements. Over the next few years, however, the reporting requirements are expected to become more rigorous. Experts in the field expect such public reporting of outcomes to be commonplace in the future.

PMID: 10176044 [PubMed - indexed for MEDLINE]


[Clinical monitoring. A method for quality control]
[Article in Spanish]

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Clinical monitoring approximates the quality control standards that have been developed by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and utilizes clinical indicators to measure the relative quality of the health care given. This method can be used to compare the quality of desired care against actual day by day care. To demonstrate how it can be applied, an example of clinical monitoring performed in a U.S. hospital is presented.

PMID: 9220868 [PubMed - indexed for MEDLINE]


A national clinical indicator database: issues of reliability and validity.

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The introduction of performance (clinical) indicators into the accreditation process by the Australian Council on Healthcare Standards is in keeping with global trends and has enabled the establishment of a National Aggregate Database reflecting standards of care in acute health care organisations. The database contains both quantitative and qualitative information on the processes and outcomes of patient care and changes in practice induced through indicator monitoring. Of fundamental importance to the integrity of the database are the issues of indicator validity, responsiveness and reliability. This paper considers these issues, drawing parallels, as appropriate, to other performance indicator programs and studies.

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