Impact of Repeated Hospital Accreditation Surveys on Quality and Reliability, an 8-year Interrupted Time Series Analysis

**Author(s):** Devkaran S, O'Farrell PN, Ellahham S, Arcangel R.

**Journal Information:** BMJ Open. 2019 Feb 1;9(2):e024514.

**Year of Publication:** 2019

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**International:** Yes

**Purpose:** To evaluate whether hospital re-accreditation improves quality, patient safety and reliability over three accreditation cycles by testing the accreditation life cycle model on quality measures.

**Design:** Interrupted Time Series

**Methods:** Each month (over 96 months), a simple random sample of 10% of patient records was selected and audited resulting in a total of 388,800 observations from 14,500 records. The validity of the life cycle model was tested by calibrating interrupted time series (ITS) regression equations for 27 quality measures. The change in the variation of quality over the three accreditation cycles was evaluated using the Levene's test. The impact of hospital accreditation for the 27 quality measures was observed for 96 months, 1-year preaccreditation (2007) and 3 years postaccreditation for each of the three accreditation cycles (2008, 2011 and 2014). The life cycle model was evaluated by aggregating the data for 27 quality measures to produce a composite score and to fit an ITS regression equation to the unweighted monthly mean of the series.

**Findings:** The results provide some evidence for the validity of the four phases of the life cycle namely, the initiation phase, the presurvey phase, the postaccreditation slump and the stagnation phase. Furthermore, the life cycle model explains 87% of the variation in quality compliance measures (R squared= 0.87). The best-fit ITS model contains two significant variables. The Levene's test demonstrated a significant reduction in variation of the quality measures with subsequent accreditation cycles.

**Data Source Year:** 2007-2015


**Key Words:** accreditation, patient safety, quality

**Impact:** Positive
International Hospital Accreditation and Clinical Nutrition Service in Acute Care Hospitals in South Korea: Results of a Nationwide Cross-Sectional Survey

Author(s): Um MH, Lyu ES, Lee SM, Park YK.
Year of Publication: 2018
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: Yes
Purpose: To identify differences in clinical nutrition service provisions between Joint Commission International-accredited acute care hospitals and non-accredited acute care hospitals.
Design: Cross-Sectional Study
Methods: A survey questionnaire was sent to all 43 acute care hospitals in South Korea. A total of 35 sets of clinical nutrition service surveys, 234 sets of clinical dietitian job satisfaction surveys, and five-day daily work logs from 129 clinical dietitians were received.

Findings: Joint Commission International-accredited acute care hospitals (N=8) showed a higher, but not significantly higher, nutritional intervention rate of 12.7% among malnourished patients, compared with 7.0% in non-Joint Commission International-accredited acute care hospitals (N=27). Analysis of work hours of clinical dietitians indicated time spent on direct care was higher (p<0.05), while time spent on outpatient care was lower (p<0.05) among Joint Commission International-accredited acute care hospitals relative to non-Joint Commission International-accredited acute care hospitals. Joint Commission International-accredited acute care hospitals reported significantly higher satisfaction than did non-Joint Commission International-accredited acute care hospitals.

Data Source Year: 2013
Link: https://www.ncbi.nlm.nih.gov/pubmed/29222894
Key Words: accreditation, clinical dietitian, hospital, nutrition services
Impact: Positive
Exercising Differential Performance of 3 Medical Home Recognition Programs

Author(s): Mahmud A, Timbie JW, Malsberger R, Setodji CM, Kress A, Hiatt L., Kahn KL.

Year of Publication: 2018
Accreditation Program: Ambulatory Health Care (AMB)

Certification Program: Not applicable

International: No

Purpose: To examine differences in patient outcomes associated with 3 patient-centered medical homes (PCMH) recognition programs—National Committee for Quality Assurance (NCQA) Level 3, The Joint Commission (TJC), and Accreditation Association for Ambulatory Health Care (AAAHC)—among Medicare beneficiaries receiving care at federally qualified health centers (FQHCs).

Design: Cross-Sectional Study

Methods: The study used data from Centers for Medicare & Medicaid Services' (CMS) federally qualified health centers (FQHCs) that received assistance to achieve National Committee for Quality Assurance (NCQA) Level 3 patient-centered medical home (PCMH) recognition. This study assessed the impact of 3 recognition programs on utilization, quality, and Medicare expenditures using a sample of 1108 demonstration and comparison FQHCs. Using propensity-weighted difference-indifferences analyses, the authors compared changes in outcomes over 3 years for beneficiaries attributed to FQHCs that achieved each type of recognition relative to beneficiaries attributed to FQHCs that did not achieve recognition.

Findings: Recognized FQHCs compared with non-recognized FQHCs were associated with significant 3-year changes in FQHC visits, non-FQHC primary care visits, specialty visits, emergency department (ED) visits, hospitalizations, a composite diabetes process measure, and Medicare expenditures. Changes varied in direction and strength by recognition type. In year 3, compared with non-recognized sites, NCQA Level 3 sites were associated with greater increases in ambulatory visits and quality and greater reductions in hospitalizations and expenditures (P <.01). Joint Commission sites were associated with significant reductions in ED visits and hospitalizations (P <.01), and Accreditation Association for Ambulatory Health Care sites had increased ED visits.

Data Source Year: Unknown
Association Between Patient Outcomes and Accreditation in US hospitals: Observational Study

Author(s): Lam MB, Figueroa JF, Feyman Y, Reimold KE, Orav EJ, Jha AK.


Year of Publication: 2018

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To determine whether patients admitted to US hospitals that are accredited have better outcomes than those admitted to hospitals reviewed through state surveys, and whether accreditation by The Joint Commission provides any additional benefits for patients compared with other independent accrediting organizations.

Design: Observational Study

Methods: A list of US acute care hospitals, including critical access hospitals, was obtained from the Centers of Medicare and Medicaid Services (CMS), which included hospitals’ accreditation body or whether they were reviewed by the state and survey dates (ranging from 2014 to 2017). From the survey information available online at The Joint Commission website, hospital Medicare ID numbers were manually obtained and The Joint Commission list was used to cross reference the CMS list. If a hospital was also identified on The Joint Commission list, then it was included as a hospital accredited by The Joint Commission. Hospitals not on The Joint Commission list were categorized in the CMS list as being accredited by an alternative organization or reviewed by a state survey agency.
Findings: A total of 4,242,684 hospital admissions were recorded across 4400 hospitals (2847 hospitals accredited by The Joint Commission, 490 hospitals accredited by other independent accrediting organizations, and 1063 hospitals reviewed by a state survey agency). Of these admissions, 3 567 853 (84%) occurred at The Joint Commission hospitals, 492 937 (12%) at non-Joint Commission hospitals, and 181 894 (4%) at state survey hospitals. Compared with The Joint Commission or non-Joint Commission accredited hospitals, state survey hospitals were more often smaller, non-teaching, more likely to be located in rural settings, and lacking an intensive care unit. The Joint Commission hospitals were more likely to be larger, teaching institutions, located in urban locations, and in the northeast and south regions, compared with non-Joint Commission hospitals or state survey hospitals.

Patients treated at accredited hospitals had lower 30 day mortality rates for 15 selected medical conditions than those at hospitals that were reviewed by a state survey agency (10.2% v 10.6% (95% confidence interval 0.1% to 0.8%), P=0.03), but did not meet the prespecified Bonferroni P value threshold of P=0.0125 for statistical significance. Accredited and state survey hospitals had nearly identical rates of mortality for the six surgical conditions (2.4% v 2.4%, 0.0% (-0.3% to 0.3%), P=0.99). Readmissions for the 15 medical conditions at 30 days were significantly lower at accredited hospitals than at state survey hospitals (22.4% v 23.2%, 0.8% (0.4% to 1.3%), P<0.001) but did not differ for the surgical conditions (15.9% v 15.6%, 0.3% (-1.2% to 1.6%), P=0.75).

Data Source Year: 2014-2017
Link: https://www.ncbi.nlm.nih.gov/pubmed/30337294
Key Words: accreditation, patient outcomes, 30-day mortality, hospital readmission
Impact: Mixed

An International Systems-Theoretic Comparison of Hospital Accreditation: Developing an Implementation Typology

Author(s): Chuang S, Howley PH, Gonzales SS.
Year of Publication: 2018
Setting: Hospital
<table>
<thead>
<tr>
<th>Accreditation Program:</th>
<th>Hospital (HAP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certification Program:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>International:</td>
<td>Yes</td>
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</table>

**Purpose:** To explore the implementation patterns of hospital accreditation through the lens of a systems-theory based model, and determine an international accreditation implementation typology.

**Design:** Descriptive Study

**Methods:** A qualitative comparative study of five established international hospital accreditation systems in five countries (America, Canada, Australia, Taiwan and France) was undertaken based on a systems-theoretic holistic healthcare systems relationship model. A set of key attributes relevant to three systems-theoretic model relationships guided data collection, comparison and synthesis. This involved three stages: (1) literature review for identification of a set of attributes relevant to the relationships indicated in the holistic healthcare systems relationship (HHSR) model as a data collection guideline and comparative criteria; (2) a multi-method search strategy for collection of accreditation program data in the five countries based on the defined attributes; (3) analysis of differences and similarities between the five countries’ programs, followed by synthesis for typology development.

**Findings:** An accreditation implementation typology was developed based on the data synthesis of the similarities and differences among the relationships. A typology including five implementation types of hospital accreditation systems (TYPE I–V) was induced. TYPE I is a basic stand-alone accreditation system. The higher types represent stronger relationships among accreditation system, healthcare organizations and quality measurement systems. The five settings have shifted their accreditation approaches from the basic type (TYPE I). The Joint Commission was TYPE V; the accreditation system integrates with the clinical indicators - quality measurement systems (CI-QMS) and collaborates with patient-satisfaction QMSs during the accreditation process, and all reports are available on the same electronic platform, i.e. the Quality Check website.


**Key Words:** hospital accreditation, quality measurement system, continuous quality improvement, systems-theory

**Impact:** Positive
Improving Quality of Care in Federally Qualified Health Centers Through Ambulatory Care Accreditation

Author(s): Nair S, Chen J.


Year of Publication: 2018

Setting: Ambulatory clinic general

Accreditation Program: Ambulatory Health Care (AMB)

Certification Program: Not applicable

International: No

Purpose: To examine the relationship between ambulatory care accreditation and quality of care and patient health outcomes in Health Resources and Services Administration (HRSA)–supported health centers.

Design: Cross-Sectional Study

Methods: Cross-sectional study used secondary data to examine the relationship between accreditation and quality of care in health centers. The main data set was the 2013 Uniform Data System (UDS).

Findings: Adjusted analyses show that accredited health centers achieved higher performance on adult weight screening and follow-up (coef= 0.037, p= <.05), tobacco cessation intervention (coef= 0.042, p= <.05), and use of lipid-lowering therapy (coef= 0.028, p= <.05). Study results show that universal accreditation could result in additional 552,087 adult patients receiving weight screening and follow-up, 157,434 receiving tobacco cessation intervention and 25,289 receiving lipid-lowering therapy. Findings suggest that Health Resources and Services Administration (HRSA) support for accreditation has the potential to improve quality of care and as a result, reduce health disparities in underserved communities across the United States.

Data Source Year: 2013

Link: https://www.ncbi.nlm.nih.gov/pubmed/29095745

Key Words: federally qualified health center, accreditation, quality of care, quality improvement

Impact: Positive
Examining Trends in Obstetric Quality Measures for Monitoring Health Care Disparities

Author(s): Janevic T, Egorova NN, Zeitlin J, Balbierz A, Hebert PL, Howell EA.

Year of Publication: 2018
Setting: Hospital
Accreditation Program: Hospital (HAP)
International: No

Purpose: To estimate trends and differences in obstetric quality measures by race/ethnicity.

Design: Cross-Sectional Study

Methods: The authors used 2008-2014 linked birth certificate-hospital discharge data from New York City to measure elective delivery (ED) before 39 gestational weeks (ED<39), low-risk cesarean, and episiotomy by race/ethnicity. Measures were following the Joint Commission and National Quality Forum specifications. Average annual percent change (AAPC) was estimated using Poisson regression for each measure by race/ethnicity. Risk differences (RD) for non-Hispanic black women, Hispanic women, and Asian women compared with non-Hispanic white women were calculated.

Findings: ED<39 decreased among whites [AAPC=-2.7; 95% confidence interval (CI), -3.7 to -1.7), while it increased among blacks (AAPC=1.3; 95% CI, 0.1-2.6) and Hispanics (AAPC=2.4; 95% CI, 1.4-3.4). Low-risk cesarean decreased among whites (AAPC=-2.8; 95% CI, -4.6 to -1.0), and episiotomy decreased among all groups. In 2008, white women had higher risk of most measures, but by 2014 incidence of ED<39 was increased among Hispanics (RD=2/100 deliveries; 95% CI, 2-4) and low-risk cesarean was increased among blacks (RD=3/100; 95% CI, 0.5-6), compared with whites. Incidence of episiotomy was lower among blacks and Hispanics than whites, and higher among Asian women throughout the study period.

Data Source Year: 2008-2014
Link: https://www.ncbi.nlm.nih.gov/pubmed/29668651
Key Words: disparities, obstetrics, quality measurement
Impact: Negative
**Relationship Between Patient Safety Indicator Events and Comprehensive Stroke Center Volume Status in the Treatment of Unruptured Cerebral Aneurysms**

**Author(s):** Washington CW, Taylor LI, Dambrino RJ, Clark PR, Zipfel GJ.


**Year of Publication:** 2018

**Setting:** Hospital

**Accreditation Program:** Not applicable

**Certification Program:** Disease-specific Care

**International:** No

**Purpose:** To investigate the hypothesis that in the treatment of unruptured cerebral aneurysms (UCAs), Patient Safety Indicator (PSI) events, a surrogate for quality care, are less likely to occur in hospitals meeting the volume thresholds defined by the Joint Commission for Comprehensive Stroke Center (CSC) certification. The authors also sought to understand the relationship between treatment volumes and PSI events in the patient population.

**Design:** Observational Study

**Methods:** Patients treated electively for an unruptured cerebral aneurysm were selected using the 2002-2011 National (nationwide) Inpatient Sample. The patients were evaluated for PSI events (e.g., pressure ulcers, retained surgical item, perioperative hemorrhage, pulmonary embolism, sepsis) defined by the Agency of Healthcare Research and Quality (AHRQ)-specified ICD-9 codes. Hospitals were categorized by treatment volume into CSC or non-CSC volume status based on the Joint Commission's annual volume thresholds of at least 20 patients with subarachnoid hemorrhage and performance of 15 or more endovascular coiling or surgical clipping procedures for aneurysms.
Findings: A total of 65,824 patients underwent treatment for an unruptured cerebral aneurysm. There were 4818 patients (7.3%) in whom at least 1 PSI event occurred. The overall inpatient mortality rate was 0.7%. In patients with a PSI event, this rate increased to 7% compared with 0.2% in patients without a PSI event (p<0.0001). The overall rate of poor outcome was 3.8%. In patients with a PSI event, this rate increased to 23.3% compared with 2.3% in patients without a PSI event (p<0.0001). There were significant differences in PSI event, poor outcome, and mortality rates between non-CSC and CSC volume-status hospitals (PSI event, 8.4% vs 7.2%; poor outcome, 5.1% vs 3.6%; and mortality, 1 % vs 0.6%). In multivariate analysis, all patients treated at a non-CSC volume-status hospital were more likely to suffer a PSI event with an OR of 1.2 (1.1-1.3). In patients who underwent surgery, this relationship was more substantial, with an OR OF 1.4 (1.2-1.6). The relationship was not significant in the endovascularly treated patients.

Data Source Year: 2002-2011
Link: https://www.ncbi.nlm.nih.gov/pubmed/29053070
Key Words: aneurysm, Comprehensive Stroke Center
Impact: Positive

The Impact of Joint Commission International Accreditation on Time Periods in the Operating Room: A Retrospective Observational Study

Author(s): Inomata T, Mizuno J, Iwagami M, Kawasaki S, Shimada A, Inada E..., Amano A.
Year of Publication: 2018
Setting: Hospital
Accreditation Program: Hospital (HAP)
International: Yes
Purpose: To examine the impact of Joint Commission International accreditation on operating room efficiency by comparing relevant time periods in the operating room for patients who received surgeries before and after Joint Commission International accreditation at Juntendo University Hospital.
Design: Observational Study
Methods: Patients were considered for the study if they received elective and emergency surgeries under general anesthesia at Juntendo Hospital between December 2014 and June 2016. Patients were classified as before and after Joint Commission International accreditation on December 12, 2015. The primary outcome was total procedure/surgery time (TPT). Secondary outcomes include five time periods comprising the TPT: pre-anesthesia time (preAt), anesthesia induction time (AIT), procedure/surgery time (PT), anesthesia awareness time (AAT) and post-anesthesia time (postAT). The authors compared these time periods between patients before and after Joint Commission International accreditation and patients were matched for age, sex and the specific type of surgery. Chi-square tests, paired t-tests, and unpaired t-tests were used.

Findings: Of the 8,835 and 4,453 patients receiving surgery before and after Joint Commission International accreditation, 3,222 were matched for age, sex and specific surgery, resulting in groups for comparison. The TPT (197 +/- 133.3 minutes vs. 195.2 +/- 131.9 minutes, before vs. after Joint Commission International, p= 0.494) was not significantly different between groups. The preAT was significantly increased after Joint Commission International accreditation (8.2 +/- 6.9 minutes vs. 8.5 +/- 6.9 minutes, before vs. after Joint Commission International, respectively, p=0.028), whereas the AIT was significantly reduced after Joint Commission International accreditation (34.4 +/- 16.1 minutes vs. 33.6 +/- 15.4 minutes, before vs. after Joint Commission International, respectively, p=0.037). However, PT (42.6 +/- 17.4 minutes, before vs. after Joint Commission International, p=0.318) and postPT (20.7 +/- 11.7 minutes vs. 20.6 +/- 10.8 minutes, before vs. after Joint Commission International, p=0.920) were not significantly different between groups.

Data Source Year: 2014-2016
Link: https://www.ncbi.nlm.nih.gov/pubmed/30240416
Key Words: operating room, surgery time
Impact: Positive

Comparative Study Between Joint Commission International Accredited and Non-accredited Palestinian Hospitals

Author(s): Barghouthi EA, Imam A.
Year of Publication: 2018
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: Yes
Purpose: To assess the level of patient satisfaction in Joint Commission International-accredited and non-accredited hospitals in Palestine.
Design: Cross-Sectional Study
Methods: Quantitative descriptive cross-sectional design used to compare patient satisfaction in two Palestinian hospitals. The researcher measured the satisfaction between October and November 2016 using the SERVQUAL tool to assess five dimensions of quality (reliability, assurance, tangibility, empathy, and responsiveness). The sample size included was 332 inpatients, who were recruited by the researcher through convenient sampling method, and the data was analyzed using SPSS version 18.
Findings: The patients had a high level of satisfaction with a total mean of (4.34) out of (5) and a (0.70) standard deviation. The results indicated that there are statistically significant differences at the level (P<0.05) between the means of patient satisfaction relating to patient demographic characteristics (with the exception of gender), and also indicated that there are no statistically significant differences related to hospital characteristics. Moreover, for all satisfaction dimensions patients have more satisfaction in non-accredited hospitals than accredited ones.
Data Source Year: 2016
Key Words: patient satisfaction
Impact: Mixed

Organizational Characteristics Associated With the Provision of Cultural Competency Training in Home and Hospice Care Agencies

Author(s): AbuDagga A, Weech-Maldonado R, Tian F.
Year of Publication: 2018
Accreditation Program: Home Care (OME)
International: No
Purpose: To examine the associations between six organizational characteristics and the provision of cultural competency training (CCT) in home health care and hospice agencies.
<table>
<thead>
<tr>
<th><strong>Design:</strong></th>
<th>Cross-Sectional Study</th>
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<tr>
<td><strong>Methods:</strong></td>
<td>The study used cross-sectional data from the agency component of the 2007 National Home and Hospice Care Survey. The CCT provision composite was composed of three items: whether the agency provides mandatory cultural training to understand cultural differences/beliefs that may affect delivery of services to (a) all administrators, clerical, and management staff; (b) all direct service providers; and © all volunteers. Organizational characteristics were volume, ownership status, chain membership, teaching status, Joint Commission accreditation status, and formal contracts.</td>
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<td><strong>Findings:</strong></td>
<td>The weighted sample (n= 14,469) had a mean CCT provision score of 1.75 (range- 0-3). Our ordinal logistic regression model showed that Joint Commission accreditation increased CCT provision odds in the home health (odds ratio [OR]= 2.07, 95% confidence interval [CI] [1.01, 4.24]) and hospice (OR= 4.40, 95% CI [2.07, 9.38]) settings. Teaching status increased CCT provision odds (OR= 2.71, 95% CI [1.19, 6.17]) in the home health setting. Formal contracts increased CCT provision odds (OR= 4.03, 95% CI [1.80, 9.00]), whereas not-for-profit ownership decreased CCT provision odds (OR= 0.19, 95% CI [0.07, 0.50]) in the hospice setting.</td>
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<tr>
<td><strong>Key Words:</strong></td>
<td>cultural competence, disparities, home health, hospice, training</td>
</tr>
<tr>
<td><strong>Impact:</strong></td>
<td>Positive</td>
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</tbody>
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### Efficiency of Electronic Signout for ED-to-Inpatient Admission at a Non-teaching Hospital

| **Author(s):** | Singleton JM, Sanchez LD, Masser BA, Reich B. |
| **Year of Publication:** | 2018 |
| **Setting:** | Hospital |
| **Accreditation Program:** | Not applicable |
| **International:** | No |
| **Purpose:** | To determine the efficiency of an eSignout platform at a community affiliate hospital by comparing emergency department length of stay (LOS) for a 5-month period before and after implementation and to compare the quality assurance (QA) events among admitted patients for the same time period. |
Design: Uncontrolled Before-After Study

Methods: A retrospective, interventional study was conducted with the main outcome measures including ED LOS with calculation of 95% CI, mean comparison (t test), and number of QA events before and after implementation of the eSignout model. The pre-intervention data collection period took place from April to August 2014, and the post-intervention data collection period occurred during the 5-month period after implementation (April to August 2015). The study was conducted at Beth Israel Deaconess-Needham (BID-Needham), a 58-bed community affiliate of Beth Israel Deaconess Medical Center (BIDMC) located in Needham, Massachusetts, with an annual ED volume of approximately 15,000 patient visits.

Findings: Prior to eSighnout implementation, 1045 patients were admitted [mean ED LOS 330.0 min (95% CI 318.6-341.4)]. Following implementation, 1106 patients were admitted [mean ED LOS 338.9 min (95% CI 327.4-350.4, p= 0.2853)]. Nine pre-implementation QA events and six-post implementation events were identified.

Data Source Year: 2014-2015

Link: https://www.ncbi.nlm.nih.gov/pubmed/29516433

Key Words: emergency care, quality improvement, information technology, electronic handoff, patient safety

Impact: Neutral

Patient Mortality During Unannounced Accreditation Surveys at US Hospitals

Author(s): Barnett ML, Olenski AR, Jena AB.


Year of Publication: 2017

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To assess whether heightened vigilance during survey weeks is associated with improved patient outcomes compared with non-survey weeks, particularly in major teaching hospitals.

Design: Observational Study
Methods: Quasi-randomized analysis of Medicare admissions at 1984 surveyed hospitals from calendar year 2008 through 2012 in the period from 3 weeks before to 3 weeks after surveys. Outcomes between surveys and surrounding weeks were compared, adjusting for beneficiaries’ sociodemographic and clinical characteristics, with subanalyses for major teaching hospitals. Data analysis was conducted from January 1 to September 1, 2016.

Findings: The study sample included 244,787 and 1,462,339 admissions during survey and nonsurvey weeks with similar patient characteristics, reason for admission, and in-hospital procedures across both groups. There were 811,598 (55.5%) women in the nonsurvey weeks (mean [SD] age, 72.84 [14.5] years) and 135,857 (55.5%) in the survey weeks (age, 72.76 [14.5] years). Overall, there was a significant reversible decrease in 30-day mortality for admissions during survey (7.03%) vs nonsurvey weeks (7.21%) (adjusted difference, −0.12%; 95%CI, −0.22% to −0.01%). This observed decrease was larger than 99.5% of mortality changes among 1000 random permutations of hospital survey date combinations, suggesting that observed mortality changes were not attributable to chance alone. Observed mortality reductions were largest in major teaching hospitals, where mortality fell from 6.41% to 5.93% during survey weeks (adjusted difference, −0.38%; 95%CI, −0.74% to −0.03%), a 5.9% relative decrease. There were no significant differences in admission volume, length of stay, or secondary outcomes.

Data Source Year: 2008-2012
Link: https://www.ncbi.nlm.nih.gov/pubmed/28319229
Key Words: accreditation, best practices, patient mortality
Impact: Positive

Differences in Acute Ischemic Stroke Quality of Care and Outcomes by Primary Stroke Center Certification Organization

Author(s): Man S, Cox M, Patel P, Smith EE, Reeves MJ, Saver JL …, Fonarow GC.
Year of Publication: 2017
Setting: Hospital
Accreditation Program: Not applicable
Certification Program: Disease-specific Care
International: No
Purpose: To evaluate whether Primary Stroke Centers (PSCs) certified by different organizations have similar quality of care and in-hospital outcomes.

Design: Observational Study

Methods: The study population consisted of acute ischemic stroke patients who were admitted to PSCs participating in Get With The Guidelines-Stroke program between January 1, 2010, and December 31, 2012. Measures of care quality and outcomes were compared among the 4 different PSC certifications.

Findings: A total of 477,297 acute ischemic stroke admissions were identified from 977 certified PSCs (73.8% Joint Commission, 3.7% Det Norske Veritas, 1.2% Healthcare Facilities Accreditation Program, and 21.3% State-based). Composite care quality was generally similar among the 4 groups of hospitals, although state-based PSCs under-performed Joint Commission PSCs in a few key measures, including intravenous tissue-type plasminogen activator use. The rates of tissue-type plasminogen activator use were higher in Joint Commission and Det Norske Veritas (9.0% and 9.8%) and lower in State and Healthcare Facilities Accreditation Program certified hospitals (7.1% and 5.9%) (P<0.0001). Door-to-needle times were significantly longer in Healthcare Facilities Accreditation Program hospitals. State PSCs had higher in-hospital risk-adjusted mortality (odds ratio 1.23, 95% confidence intervals 1.07–1.41) compared with Joint Commission PSCs.

Data Source Year: 2010-2012

Data Source: Link: https://www.ncbi.nlm.nih.gov/pubmed/28008094

Key Words: certification, patient outcomes, primary stroke center, stroke

Impact: Positive

Comparing Public Quality Ratings for Accredited and Nonaccredited Home Health Agencies

Author(s): Williams SC, Morton DJ, Yendro S, Baker DW.


Year of Publication: 2017

Accreditation Program: Home Care (OME)

Certification Program: Not applicable

International: No
Purpose: To compare Joint Commission-accredited and non-accredited home health agencies over a 3-year period using the Centers for Medicare and Medicaid Services (CMS) Home Health Compare data set.

Design: Descriptive Study

Methods: Descriptive study used the CMS Home Health Compare data set to compare accredited and non-accredited performance on the CMS star ratings and 22 quality measures. A longitudinal model was used to determine differences between accredited and nonaccredited organizations on the quality measures. Categorical differences in star ratings and risk-adjusted outcome categories were analyzed using a chi-square test.

Findings: Joint Commission-accredited agencies had statistically higher star ratings than non-Joint Commission-accredited organizations (3.4 vs. 3.2, p < .001), and they were more likely to be categorized 4, 4.5, and 5 star organizations (p < .001). Absolute differences between accredited and non-accredited agencies on the OASIS quality measures were generally small but consistently favored accredited facilities over all 3 years studied (p < .05).

Data Source Year: 2013-2015

Link: http://journals.sagepub.com/doi/full/10.1177/1084822317737249

Key Words: Home Health Compare, accreditation, home health, quality measures, star ratings

Impact: Positive

The Proportion of Errors in Medical Prescriptions and Their Executions Among Hospitalized Children Before and During Accreditation

Author(s): Mekory TM, Bahat H, Bar-Oz B, Tal O, Berkovitch M, Kozer E.


Year of Publication: 2017

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: Yes
Purpose: To evaluate the rate of medication related errors in the pediatric ward and pediatric emergency department (PED), before and after implementing intervention strategies according to the Joint Commission International (JCI) accreditation program.

Design: Cross-Sectional Study

Methods: The study was conducted at the PED in a university affiliated, 850 beds general hospital in Israel. All medical charts of pediatric patients admitted in February 2013 and February 2014 were reviewed. Data from patients charts was extracted into a database. To establish the accuracy of data collection, a senior investigator reviewed a random sample of 5% of the charts. The study data points were noted on each chart.

Findings: The study collected 937 valid prescription orders and 924 administration orders (1861 medical orders) from February 2013, and 961 valid prescription orders and 958 administration orders (1919 medical orders) from February 2014. After implementing intervention strategies according to the JCI accreditation program, there was a significant reduction in prescribing errors from 6.5 to 4.2% between years 2013 and 2014 (P = 0.03). There was no significant difference in administration error rates between the two periods (104 (11.3%) in the first period and 114 (11.9%) in the second; P = 0.61).

Data Source Year: 2013-2014

Link: https://www.ncbi.nlm.nih.gov/pubmed/28340029

Key Words: medical prescribing errors, patient safety, accreditation

Impact: Mixed

Hospital and Demographic Characteristics Associated with Inpatient Neurological Services in the United States

Author(s): Fu KA, Razmara A, Cen S, Towfighi A, Mack WJ, Sanossian N.


Year of Publication: 2017

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To determine nationwide availability and factors associated with inpatient neurological services.
Design: Cross-Sectional Study

Methods: Using the 2011 American Hospital Association survey, this study determined the proportion of hospitals that provided inpatient neurological services. Demographic and household data from the 2010 national census and survey results were utilized to determine regional factors associated with the availability of inpatient neurological services. Using rate ratios, the association was estimated using Poisson regression. Hospitals lacking emergency departments or with a bed size of less than 25 beds were excluded to focus on acute care facilities with the potential to have sub-specialty services.

Findings: Of 3969 hospitals that completed the survey, 2017 (65%) provided inpatient neurological services. Hospitals with Joint Commission accreditation were 1.35 times more likely (95% CI: 1.16–1.57) to have inpatient neurological services. Compared to small hospitals (bed size 25–36), large hospitals (bed size 246–2264) were 4.53 times more likely (95% CI: 2.79–7.35) to provide inpatient neurological services. Hospitals that were the sole community provider or were non-federal governmental hospitals had a lower probability of providing inpatient neurological services with rate ratio of 0.65 (95% CI: 0.5–0.84) and 0.81 (95% CI: 0.7–0.94), respectively.

Data Source Year: 2010

Link: https://www.ncbi.nlm.nih.gov/pubmed/29156330

Key Words: hospitals, inpatient neurological services, quality improvement, accreditation

Impact: Positive
Purpose: To assess pain reassessment compliance rates, associated documentation, and clinic work flow, and to identify opportunities for improvement.

Design: Cross-Sectional Study

Methods: Pain reassessment compliance was evaluated using an Electronic Medical Record (EMR) query for patients treated between February 1 and May 30, 2013, who received Toradol at a large military outpatient clinic (n= 151). In addition, observations of clinic work flow were conducted using tracer methodology as recommended by The Joint Commission to track a convenience sample of 12 patients moving through clinic care processes. Pain reassessment documentation and work flow procedures were then evaluated using the Situation Awareness (SA) framework, which is an approach used to evaluate operational implications of factors affecting staff decisions and performance (e.g., stress and workload, interface design, automation, complexity of work flow, staff abilities and training, goals and expectations).

Findings: The Electronic Medical Record (EMR) review revealed compliance rates greater than 90% for all pain reassessment requirements with the exception of the maximum 30-minute interval between initial and follow-up pain assessment required by clinic policy, which had a compliance rate of 38%. Pain reassessments were documented to occur at a mean time of 48.25 minutes after initial assessment. Observations from the tracer methodology (recommended by The Joint Commission), revealed a lack of standardized procedures at the clinic. During the tracer, none of the 12 patient encounters were fully compliant with clinic policies. An analysis of clinic workflow using the SA framework revealed that the SA of clinic staff was impacted by a lack of standardized procedures and heavy reliance on staff memory.

Data Source Year: 2013
Link: https://www.ncbi.nlm.nih.gov/pubmed/29087912
Key Words: accreditation, pain assessment, military clinic
Impact: Neutral

Regional Disparities in the Quality of Stroke Care

Author(s): Seabury S, Bognar K, Xu Y, Huber C, Commerford SR, Tayama D.
Year of Publication: 2017
Purpose: To document the quality gaps that exist in stroke care, particularly as measured by alteplase (rt-PA) administration, between metropolitan and non-metropolitan areas and to quantify the extent to which these gaps are associated with disparities in access to neurological services. The authors also sought to explore the impact of potential approaches to bridge the aforementioned gaps.

Design: Cross-Sectional Study

Methods: Retrospective study used quality performance data from the 2015 Hospital Compare database linked to information on certification status from the Joint Commission and information on local access to neurological services from the Area Health Resources File. The authors used this data to compare stroke care quality according to geographic area, certification, and neurological access.

Findings: Non-metropolitan hospitals performed worse than metropolitan hospitals on all assessed stroke care quality measures. The most prevalent disparity occurred in the use of rt-PA (the standard of care for patients with an acute ischemic stroke) for eligible patients (52.2% versus 82.7%, respectively). Certified stroke centers in every geographic designation provided higher quality of care, whereas large variation was observed among non-certified hospitals. Regression analyses suggested that improvements in hospital certification or access to neurologists were associated with absolute improvements of 44.9% and 21.3%, respectively, in the percentage of patients receiving rt-PA.

Data Source Year: 2013-2014

Link: https://www.ncbi.nlm.nih.gov/pubmed/28431874

Key Words: stroke, quality of care, telemedicine, stroke certification

Impact: Positive
Purpose: To describe one rural hospital’s journey to The Joint Commission's Acute Stroke Ready Certification.

Design: Descriptive Study

Methods: A multidisciplinary team of emergency department clinicians, hospital leadership, and community participants was formed to develop a structured care algorithm and intensive process improvement initiatives to guide the Acute Stroke Ready Hospital application process.

Findings: In the 7 months after implementation, door-to-laboratory results improved by an average of 12 minutes, door-to-computed tomography interpretation improved by 3 minutes, time to intravenous thrombolitics improved to less than 60 minutes, and patient transfer within 2 hours of arrival also improved. Emergency department average response time was reduced by 5 minutes, and time to neurology via telemedicine has been reduced by approximately 10 minutes.

Data Source Year: 2014-2015
Key Words: stroke, Acute Stroke Ready Certification, stroke certification
Impact: Positive

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**Perception of Hospital Accreditation Among Health Professionals in Saudi Arabia**

Author(s): Algahtani H, Aldarmahi A, Manlangit Jr J, Shirah B.


Year of Publication: 2017

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: Yes

Purpose: To assess the perceptions of health professionals on the impact of Joint Commission International (JCI) accreditation and implementation of change towards the delivery of quality patient care.
**Design:** Cross-Sectional Study

**Methods:** Cross-sectional study conducted at King Abdulaziz Medical City. The hospital has 650 beds in different tertiary care specialties. Between June 2016 and September 2016, a validated questionnaire was distributed to physicians, nurses, medical technologists, dieticians, and other allied healthcare professionals. The questionnaire consisted of 19 items covering participation in accreditation, benefits of accreditation, and the quality of results of accreditation. Demographic data collected on the participants included age, gender, educational attainment, profession, length of service, and department. Data were analyzed using a one-way ANOVA test and a t-test.

**Findings:** Hospital accreditation was given a worthy response from the general view of 901 health professionals. The mean (standard deviation) of scores on a 5-point Likert scale were 3.79 (0.68) for participation in accreditation, 3.85 (0.84) for benefits, and 3.54 (1.01) for quality of results.

**Data Source Year:** 2016

**Link:** [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6150592/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6150592/)

**Key Words:** hospital accreditation, perception of accreditation, quality of care

**Impact:** Positive

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**Evaluating Medical Tourism Prospects of Joint Commission International Accredited Hospitals in the Kingdom of Saudi Arabia**

**Author(s):** Reddy LKV.

**Journal Information:** Health Science Journal. 2017 Mar 1;11(2).

**Year of Publication:** 2017

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**International:** Yes

**Purpose:** To explore the potential ways of attracting medical tourists to Joint Commission International hospitals in Saudi Arabia and to measure the effectiveness of marketing mix on Saudi Arabian medical tourism.

**Design:** Cross-Sectional Study
Methods: A cross-sectional quantitative survey was conducted using a structured questionnaire during the period from October 2016 to January 2017 to address the objectives. The non probability purposive sampling technique was used to collect the data to a target of 210 respondents. However, at the end of the data collection, 180 valid questionnaires were considered in the final analysis and the response rate was 85.71%. The respondents consisted of the doctors, nurses, and hospital administrators in three Joint Commission-accredited hospitals in Saudi Arabia, namely King Khaled Hospital, Hail; Aseer central Hospital, Abha and King Salman Hospital, Riyadh. The questionnaire consists of close ended responses such as (a) socio-demographic information, (b) ranking the potential ways in attracting medical tourists, © market mix questions- place, price, product, promotion and (d) open-ended question for suggestions improving medical tourism. Data analysis included using Cronbach's alpha, parametric multiple regression, and correlation analysis.

Findings: The probable approaches in attracting medical tourists were rated as first and second, respectively, for the characteristics measured in choosing a treatment of patients (11.74%) and prerequisites thought of the patients before coming to host countries for treatment (11.68%). The regression and correlation analysis were conducted to analyze correlations between the marketing mix variables for which the result is p<0.05 and there is a positive correlation between the variables except place-price, promotion-place, promotion-price. The study concluded that marketing mix plays an important role in attracting medical tourists to the Kingdom of Saudi Arabia. The question regarding the potentiality of the Kingdom of Saudi Arabia (KSA) to attract medical tourists indicated that 78.88% of respondents gave second rank to hospitals with accreditations (n=142).

Data Source Year: 2016-2017
Key Words: medical tourism, marketing mix
Impact: Positive

Evaluating the impact of accreditation on Brazilian healthcare organizations: A quantitative study

Author(s): Saut AM, Berssaneti FT, Moreno MC.
Year of Publication: 2017
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: Yes

Purpose: The aim of this study was to evaluate the impact of accreditation programs on Brazilian healthcare organizations.

Design: Cross-Sectional Study

Methods: The study evaluated the impact of accreditation programs on healthcare organizations from the Federal District and from 18 Brazilian states. A web-based questionnaire survey was undertaken between February and May 2016. Quality managers of 141 Brazilian healthcare organizations were the main respondents of the study. The questionnaire was applied to not accredited and accredited organizations. The main outcome measures were patient safety activities, quality management activities, planning activities—policies and strategies, patient involvement, involvement of professionals in the quality programs, monitoring of patient safety goals, organizational impact and financial impacts.

Findings: The study identified 13 organizational impacts of accreditation. There was evidence of significant and moderate correlation between the status of accreditation and patient safety activities, quality management activities, planning activities—policies and strategies, and involvement of professionals in the quality programs. The correlation between accreditation status and patient involvement was significant but weak, suggesting that this issue should be treated with a specific policy. The impact of accreditation on the financial results was not confirmed as relevant; however, the need for investment in the planning stage was validated. The impact of accreditation is mainly related to internal processes, culture, training, institutional image and competitive differentiation.

Data Source Year: 2016

Link: https://www.ncbi.nlm.nih.gov/pubmed/28992152

Key Words: Quality improvement, accreditation, patient safety, surveys

Impact: Positive

Effect of Joint Commission International Accreditation on the Nursing Work Environment in a Tertiary Medical Center

Author(s): Kagan I, Farkash-Fink N, Fish M.

Purpose: To evaluate the nursing work climate at ward level, before and after accreditation by Joint Commission International at one tertiary medical center in Israel.

Design: Uncontrolled Before-After Study

Methods: A before-and-after evaluation study using a questionnaire of nursing staff perceptions of accreditation effects. Three samples were used: (1) pre-Joint Commission, (2) post-Joint Commission, and (3) a paired pre-post sample.

Findings: Post-accreditation by Joint Commission International, physician-nurse relations improved; the involvement of social workers, dieticians, and physiotherapists increased; support services responded more quickly to requests; and management-line staff relations became closer. Nurses from all levels of the organizational hierarchy led the change process, and as a result, their status in the hospital was enhanced by recognition of their role as leader/coordinator and case manager of clinical care improvement. They, as a result, had the ability to make organizational and managerial decisions with greater independence. Nurses also reported that the efforts demanded by Joint Commission had generated a better across the-board working climate, improving interaction among professions, departments, and units. These outcomes satisfactorily met the key goal that Rabin Medical Center nursing managers had attached to the accreditation process, namely, to create a ward and organizational work climate that was improvement-oriented.

Data Source Year: Not Identified

Link: https://www.ncbi.nlm.nih.gov/pubmed/27096904

Key Words: accreditation, hospitals

Impact: Positive
Purpose: To identify the beneficial effects of primary stroke centers (PSCs) certification by the Joint Commission, this study compared the rates of in-hospital adverse events and discharge outcomes among ischemic stroke patients admitted to PSCs and those admitted to non-PSC hospitals in the United States.

Design: Observational Study

Methods: Data was used from the Nationwide Inpatient Sample from 2010 and 2011. The analysis was limited to states that publicly reported hospital identity. The PSCs were identified by matching the Nationwide Inpatient Sample hospital files with the list provided by the Joint Commission. The analysis was limited to patients (age ≥18 years) discharged with a principal diagnosis of ischemic stroke (International Classification of Disease, 9th Revision, codes 433.x1, 434.x1).

Findings: The study identified 123,131 ischemic stroke patients from 28 states. A total of 72,982 (59.3%) patients were admitted to PSCs. After adjusting for age, gender, race or ethnicity, comorbidities, All Patients Refined Diagnosis Related Groups (APR-DRG)-based disease severity, and hospital teaching status, patients admitted to PSCs were at a lower risk of in-hospital adverse events complications: pneumonia (odds ratio [OR], .8; 95% confidence interval [CI], .7-.8) and sepsis (OR, .7; 95% CI, .6-.8). Patients admitted to PSCs were more likely to receive thrombolysis (OR, 1.6; 95% CI, 1.5-1.7). The mean cost of hospitalization (95% CI) of the patients was significantly higher in patients admitted at PSCs compared with those admitted at non-PSC hospitals $47621 (47099-48144) vs. $35229n (34803-35654), P < .0001). The patients admitted to PSCs had lower inpatient mortality (OR, .8; 95% CI, .8-.9) and were more likely to be discharged with none to minimal disability (OR, 1.1; 95% CI, 1.0-1.1).

Compared with non-PSC admissions, patients admitted to PSCs are less likely to experience hospital adverse events and more likely to experience better discharge outcomes.

Data Source Year: 2010-2011

Comparing Public Quality Ratings for Accredited and Non-accredited Nursing Homes

Author(s): Williams SC, Morton DJ, Braun BI, Longo BA, Baker DW.


Year of Publication: 2016

Setting: Nursing home

Accreditation Program: Nursing Care Center (NCC)

Certification Program: Not applicable

International: No

Purpose: To compare quality ratings of accredited and non-accredited nursing homes using the publicly available Centers for Medicare and Medicaid Services (CMS) Nursing Home Compare data set.

Design: Cross-Sectional Study

Methods: This cross-sectional study compared the performance of 711 Joint Commission-accredited nursing homes (81 of which also had Post-Acute Care Certification) to 14,926 non-Joint Commission accredited facilities using the Nursing Home Compare data set (as downloaded on April 2015). Measures included the overall Five-Star Quality Rating and its four components (health inspection, quality measures, staffing, and RN staffing), the 18 Nursing Home Compare quality measures (5 short-stay measures, 13 long-stay measures), as well as inspection deficiencies, fines, and payment denials. T tests were used to assess differences in rates for Joint Commission-accredited nursing homes versus non-Joint Commission-accredited nursing homes for quality measures, ratings, and fine amounts. Analysis of variance models were used to determine differences in rates using Joint Commission accreditation status, nursing home size based on number of beds, and ownership type. An additional model with an interaction term using Joint Commission accreditation status and Joint Commission Post-Acute Care Certification status was used to determine differences in rates for Post-Acute Care Certified nursing homes. Binary variables (eg, deficiency type, fines, and payment denials) were evaluated using a logistic regression model with the same covariates.
Findings: After controlling for the influences of facility size and ownership type, Joint Commission-accredited nursing homes had significantly higher star ratings than non-Joint Commission-accredited nursing homes on each of the star rating component subscales (P < .05) (but not on the overall star rating), and Joint Commission-accredited nursing homes with Post-Acute Care Certification performed statistically better on the overall star rating, as well as 3 of the 4 subscales (P < .05). Joint Commission-accredited nursing homes had statistically fewer deficiencies than non-Joint Commission-accredited nursing homes (P < .001), were less likely to have immediate jeopardy or widespread deficiencies (P < .001), and had fewer payment denials (P < .001) and lower fines (P < .001).

Data Source Year: 2015

Link: https://www.ncbi.nlm.nih.gov/pubmed/27600192

Key Words: accreditation, nursing homes, quality ratings

Impact: Positive

Pharmaceutical Interventions by Collaboration Between Staff Pharmacists and Clinical Pharmacists and Implementation of Joint Commission International Accreditation Standards on Medication Use May Optimize Pharmacotherapy in Geriatric Patients

Author(s): Chen M, Zhou Q.


Year of Publication: 2016

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: Yes

Purpose: To provide their perspective in regards to pharmacotherapy in geriatric patients.

Design: Case Study

Methods: N/A
**Findings:** The Second Affiliated Hospital, School of Medicine, Zhejiang University, People's Republic of China, successfully improved the appropriateness of physician orders for oral medication in geriatric VIP patients during the journey to Joint Commission International accreditation. A pharmacist-led multidisciplinary intervention program significantly reduced the proportion of drug-related problems from 13.0% (before Joint Commission International accreditation) to 3.5% (after Joint Commission International accreditation) (P<0.01).

**Data Source Year:** Not Identified

**Link:** [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5108496/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5108496/)

**Key Words:** accreditation, geriatric patients, Joint Commission International, pharmacists, pharmacotherapy

**Impact:** Positive

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**Will Hospitals Finally Do the Right Thing? Providing Evidence-Based Tobacco Dependence Treatments to Hospitalized Patients Who Smoke**

**Author(s):** Fiore MC, Adsit R.


**Year of Publication:** 2016

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To describe two policy developments that may help enhance tobacco cessation treatment for patients visiting healthcare settings including patients who are hospitalized: The Joint Commission's January 2012 Tobacco Cessation Performance Measure Set, and passage of the Affordable Care Act (ACA) with its mandate that insurers provide coverage for evidence-based prevention services, including smoking cessation, without barriers and without co-pays.

**Design:** Not a Study
Findings: In January 2012, The Joint Commission released its Tobacco Cessation Performance Measure Set, which was predicated on some key findings, such as the fact that many patients’ hospitalizations are directly caused by smoking, making intervention during this time particularly salient. In addition, because all Joint Commission–accredited hospitals are required to be generally smoke free, admission to a hospital forces an individual who smokes to abstain during the hospitalization, so that he or she may be open during this time to making a quit attempt.

As of March 2016, 768 (approximately 20%) of 3,705 hospitals were reporting their performance on the tobacco cessation measure set.

In this issue of The Joint Commission Journal on Quality and Patient Safety, two articles provide additional information and guidance as hospitals move to implement the Joint Commission Tobacco Cessation Performance Measure Set and use the ACA insurance coverage mandate to help more of their patients quit tobacco. In “Two Years in the Life of a University Hospital Tobacco Cessation Service: Recommendations for Improving the Quality of Referrals,” Bjornson and colleagues describe two years of experience of the Oregon Health & Science University (OHSU) Tobacco Cessation Consult Service, a comprehensive program to help hospitalized OHSU smokers quit.

In a second article in this issue of The Joint Commission Journal on Quality and Patient Safety, “Improving Quality of Care for Hospitalized Smokers with HIV: Tobacco Dependence Treatment Referral and Utilization,” Fitzgerald and colleagues highlight a tragic paradox—although treatments for HIV disease have improved dramatically during the last decade, smoking rates among these patients remain high, and only a small proportion of such patients receive treatment for their tobacco dependence.

Data Source Year: Not Identified

Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4833016/

Key Words: performance measures, smoking cessation

Impact: Positive
Transitions of Care in an Era of Healthcare Transformation

Author(s): Kessler C, Tsipis NE, Seaberg D, Walker GN, Andolsek K.


Year of Publication: 2016

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To provide an overview of relevant policies that reflect best practices that could affect transition of care for all specialties, with recommendations most relevant for the emergency department. This review is meant to be a practical reference about transitions of care, tailored to emergency medicine physicians and the teams that make emergency departments run.

Design: Not a Study

Methods: This review includes a comprehensive examination of various regulatory, accreditation, and policy-based elements with which EM physicians interact in their daily practice. The content is organized into five domains: Accreditation Council for Graduate Medical Education (ACGME), The Joint Commission, Affordable Care Act, National Quality Forum (NQF), and accountable care organizations.
Findings: The Joint Commission is influential with regard to the practice of emergency medicine, and The Joint Commission's Center for Transforming Healthcare has committed to improving transition of care. In August 2009, 10 of the center's collaborating hospitals and health systems began a project focused on hand-off communications. In 2012 the Joint Commission Center for Transforming Healthcare generated a customized hand-off communications tool for organizations to use to measure their organization's actual performance and identify barriers to excellent performance, as well as to direct them to proven solutions to address their unique barriers (Joint Commission Center for Transforming Healthcare, 2014). Developed by the hospitals that helped identify persistent problems, the hand-off communications tool is a targeted compilation of solutions linked to specific root causes of unsuccessful hand-offs. The Targeted Solutions Tool for Hand Off Communications uses the acronym SHARE-standardize critical content, hardwired within your system, allow opportunity to ask questions, reinforce quality and measurement, and educate and coach.

The Joint Commission observed that the pilot organizations that implemented solutions based on SHARE principles demonstrated the following: a greater than 50% reduction in defective hand-offs and an increase in patient and family satisfaction; staff satisfaction; and successful transfers of patients. Through the Center for Transforming Healthcare and other initiatives, The Joint Commission provides additional evidence of the need to prioritize improvements in transitions of care.

Data Source Year: Not Identified
Link: https://www.ncbi.nlm.nih.gov/pubmed/27356450
Key Words: United States
Impact: Positive

A National Perspective on Exploring Correlates of Accreditation in Children's Mental Health Care

Author(s): Lee MY.
Journal Information: J Behav Health Serv Res. 2016 Dec 05.
Year of Publication: 2016
Setting: Hospital, Behavioral health hospital, Behavioral health outpatient
Accreditation Program: Hospital (HAP), Behavioral Health Care (BHC)
Certification Program: Not applicable
International: No

Purpose: To explore national accreditation rates and the relationship between accreditation status and organizational characteristics and quality indicators in children's mental health. The study also provides the first national perspective on the three largest accreditors of mental health care-The Joint Commission, the Commission on Accreditation of Rehabilitation Facilities, and the Council on Accreditation.

Design: Cross-Sectional Study

Methods: Data from the Substance Abuse and Mental Health Services Administration's (SAMHSA's) National Survey of Mental Health Treatment Facilities (NSMHTF) were used from 8,247 facilities that serve children and/or adolescents. Nearly 60% (n=4,925) of the facilities were accredited by the Council on Accreditation (COA), the Commission on Accreditation of Rehabilitation Facilities (CARF), or The Joint Commission (TJC).

Variables examined as quality indicators from the NSMHTF included the following: facilities' implementation of QA practices (regularly scheduled case reviews with supervisor and a quality review committee, client outcome follow-up after discharge, periodic utilization review, periodic client satisfaction surveys, and monitoring continuing education requirements for professional staff), provision of evidence supported treatments (ESTs) most relevant to children's mental health (cognitive behavioral therapy [CBT], therapeutic foster care [TFC], multi-systemic therapy [MST], and functional family therapy [FFT]), and practices to increase client safety (facility's report of adopting initiatives toward reduction of seclusion and restraints).

Data analyses were conducted using SAS 9.3. Descriptive statistics revealed the proportion of the accredited facilities. Chi-square analyses examined if accreditation status was associated with each of the facility characteristics and with the facilities' reporting of each of the quality indicators.
**Findings:** Of the 8247 child and/or adolescent serving mental health facilities, 60% (n = 4925) were accredited by at least one of the three accreditors—Council on Accreditation, Commission on Accreditation of Rehabilitation Facilities, or The Joint Commission. Among those accredited facilities, The Joint Commission was the sole accreditor for 44% (n = 2171), Commission on Accreditation of Rehabilitation Facilities was for 27%, and Council on Accreditation was for 25%, and 5% (n = 221) of the facilities were accredited by more than one accreditor. The Joint Commission and Commission on Accreditation of Rehabilitation Facilities was the most popular combination (n = 153), followed by The Joint Commission and Council on Accreditation (n = 46), Council on Accreditation and CARF (n = 10), and all three accreditors (The Joint Commission, Commission on Accreditation of Rehabilitation Facilities, and Council on Accreditation; n = 12).

Compared to non-accredited facilities, more accredited facilities reported greater number of admissions, acceptance of government funding and client funds, and implementation of several quality indicators. More accredited facilities reported implementation of each QA practice—regularly scheduled case reviews with a supervisor and a quality review committee, client outcome follow-up after discharge, periodic utilization review, periodic client satisfaction surveys, and monitoring continuing education requirements for professional staff. Accreditation status was not significantly associated with facilities providing CBT, MST, or FFT. There was a significant association between accreditation status and facilities providing TFC; more facilities that provided TFC were accredited than not accredited, but among accredited facilities, more did not provide TFC (n = 4190, 85.08%). In addition, accreditation status and safety were significantly associated; compared to non-accredited facilities, more accredited facilities reported adopting initiatives to reduce seclusion and restraint practices.

**Data Source Year:** 2008-2009

**Link:** https://www.ncbi.nlm.nih.gov/pubmed/27921199

**Key Words:** accreditation, children, quality

**Impact:** Positive
Using Publicly Available Data to Construct a Transparent Measure of Health Care Value: A Method and Initial Results

Author(s): Weeks W, Kotzbauer GR, Weinstein JN.


Year of Publication: 2016

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To construct a hospital-level measure of value from a numerator composed of quality of care measures (satisfaction, use of timely and effective care, and avoidance of harms) and a denominator composed of risk-adjusted 30-day episode-of care expenditures for four specific procedures including myocardial infarction, coronary artery bypass grafting, colectomy, and hip replacement surgery.

Design: Cross-Sectional Study

Methods: Using Hospital Compare and Medicare expenditure data, the authors constructed a hospital-level measure of value from a numerator composed of quality-of-care measures (satisfaction, use of timely and effective care, and avoidance of harms) and a denominator composed of risk-adjusted 30-day episode-of-care expenditures for acute myocardial infarction (1,900 hospitals), coronary artery bypass grafting (884 hospitals), colectomy (1,252 hospitals), and hip replacement surgery (1,243 hospitals).

Findings: The study found substantial variation in aggregate measures of quality, cost, and value at the hospital level. Value calculation provided additional richness when compared to assessment based on quality or cost alone: about 50% of hospitals in an extreme quality- (and about 65% more in an extreme cost-) quintile were in the same extreme value quintile.

With the exception of coronary artery bypass grafting, higher-value hospitals were larger and had a higher average daily census than lower-value hospitals, but were no more likely to be accredited by the Joint Commission or to have a residency program accredited by the American Council of Graduate Medical Education.
Safe Medication Management and Use of Narcotics in a Joint Commission International-Accredited Academic Medical Center Hospital in the People’s Republic of China

Author(s): Fang X, Zhu LL, Pan SD, Xia P, Chen M, Zhou Q.
Year of Publication: 2016
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: Yes
Purpose: To summarize relevant experiences in narcotics-related risk management toward safe drug administration and to provide some reference for international counterparts.
Design: Longitudinal Studies
Methods: Longitudinal follow-up study evaluated risk management experiences by summarizing the organizational, educational, motivational, and information technological measures in storage, prescribing, preparing, dispensing, administration, and monitoring of medication in a large-scale Joint Commission International-accredited academic medical center hospital in the People's Republic of China from 2011-2015.
Findings: The intensity of use of meperidine in hospitalized patients in 2015 was one-fourth that in 2011. A 100% implementation rate of standard storage of narcotics has been achieved in the hospital since December 2012. A "Plan, Do, Check, Act" cycle was efficient because the ratio of number of inappropriate narcotics prescriptions to total number of narcotics prescriptions for inpatients decreased from August 2014 to December 2014 (28.22% versus 2.96%, P=0.0000), and it was controlled below 6% from then on. During the journey to good pain management ward accreditation by the Ministry of Health, People's Republic of China, (April 2012-October 2012), the medical oncology ward successfully demonstrated an increase in the pain screening rate at admission from 43.5% to 100%, cancer pain control rate from 85% to 96%, and degree of satisfaction toward pain nursing from 95.4% to 100% (all P-values <0.05). Oral morphine equivalent dosage in the good pain management ward increased from 2.3 mg/patient before June 2012 to 54.74 mg/patient in 2014. From 2011 to 2015, the oral morphine equivalent dose per discharged patient increased from 8.52 mg/person to 20.36 mg/person. A 100% implementation rate of independent double-check prior to narcotic dosing has been achieved since January 2013. From 2014 to 2015, the ratio of number of narcotics-related medication errors to number of discharged patients significantly decreased (6.95% versus 0.99%, P=0.0000).

Data Source Year: 2011-2015
Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4827882/
Key Words: medication errors, medication management, meperidine, narcotics, prescribing, quality improvements, pain management, accreditation, morphine
Impact: Positive

Quality of Nursing Documentation Before and After the Hospital Accreditation in a University Hospital

Author(s): Nomura AT, Silva MB, Almeida MD.
Year of Publication: 2016
Setting: Hospital
Accreditation Program: Hospital (HAP)
International: Yes
Purpose: To analyze the quality of nursing documentation by comparing the periods before and after the preparation for the hospital accreditation and using the Quality of Nursing Diagnoses, Interventions and Outcomes- Brazilian version (Q-DIO- Brazilian version).

Design: Observational Study

Methods: Observational study of interventions in a public university hospital, which serves 60 specialties and has approximately 850 beds shared among 10 Nursing Services. The study sample consisted of nursing documentation of 112 medical records for patients hospitalized in the clinical and surgical inpatient units in the period before hospital accreditation and 112 medical records for patients hospitalized after accreditation. The records from each period were compared using the Q-DIO instrument-Brazilian version. Data were also analyzed using chi-square tests and Fisher’s exact test.

Findings: There was a significant improvement in the quality of nursing documentation. When the total score of the instrument was evaluated, a significant improvement was observed in 24 out of the 29 items (82.8%).

Data Source Year: 2013-2014

Link: https://www.ncbi.nlm.nih.gov/pubmed/27878216

Key Words: nursing records, nursing audit, hospital accreditation, education department, hospital

Impact: Positive

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Value and Impact of International Hospital Accreditation: A Case Study from Jordan

Author(s): Halasa YA, Zeng W, Chappy E, Shepard DS.


Year of Publication: 2015

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: Yes

Purpose: To quantify the impact of implementing Joint Commission International hospital accreditation standards on 5 selected structural and outcome hospital performance measures, and the monetary value associated with the expected improvement.

Design: Observational Study
Methods: The four-year retrospective study compared 2 matched groups of general acute hospitals in Jordan. Difference-in-differences and adjusted covariance analyses were used to test the impact of accreditation on the selected hospital performance measures.

Findings: Of the five selected measures, three showed statistically significant effects (all improvements) associated with accreditation: reduction in return to intensive care unit (ICU) within 24 hours of ICU discharge; reduction in staff turnover; and completeness of medical records. The net impact of accreditation was a 1.2 percentage point reduction in patients who returned to the ICU, 12.8% reduction in annual staff turnover and 20.0% improvement in the completeness of medical records. Pooling over three years, these improvements translated into total savings of US$ 593,000 in Jordan’s health-care system. Also, accreditation status was associated with a 119.3% improvement in the quality index compared to 2006.

Data Source Year: 2006-2009
Key Words: accreditation, hospitals
Impact: Positive
Methods: Study participants included all patients admitted for acute stroke, heart failure or ulcer at Danish hospitals. The study intervention was hospital accreditation by either the Joint Commission International or the Health Quality Service. Hospitals were divided into two groups based on accreditation status through the study period. A historical follow-up study was performed using process of care data from all public hospitals in Denmark to examine the development over time in performance measures according to participation in accreditation programs.

Findings: Participating in accreditation was not associated with significant improvements in performance measures for acute stroke, heart failure, or ulcer. A total of 27,273 patients were included in the study. The overall opportunity-based composite score improved for both non-accredited and accredited hospitals (13.7% [95% CI 10.6; 16.8] and 9.9% [95% 5.4; 14.4], respectively), but the improvements were significantly higher for non-accredited hospitals (absolute difference: 3.8% [95% 0.8; 8.3]). No significant differences were found at disease level. The overall all-or-none score increased significantly for non-accredited hospitals, but not for accredited hospitals. The absolute difference between improvements in the all-or-none score at non-accredited and accredited hospitals was not significant (3.2% [95% -3.6:9.9]).

Data Source Year: 2004-2008
Key Words: accreditation, hospitals, quality indicators, quality of care
Impact: Neutral

Hospital Characteristics Associated with Penalties in the Centers for Medicare & Medicaid Services Hospital-Acquired Condition Reduction Program

Author(s): Rajaram R, Chung JW, Kinnier CV, Barnard C, Mohanty S, Pavey ES,..., Bilimoria KY.
Year of Publication: 2015
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To examine the characteristics of hospitals penalized by the Hospital-Acquired Condition (HAC) Reduction Program, and to evaluate the association of a summary score of hospital characteristics related to quality with penalization in the HAC program.

Design: Cross-Sectional Study

Methods: Data for hospitals participating in the FY2015 Hospital-Acquired Condition (HAC) Reduction Program were obtained from Centers for Medicare and Medicaid Services' (CMS) Hospital Compare and merged with the 2014 American Hospital Association Annual Survey and FY2015 Medicare Impact File. Logistic regression models were developed to examine the association between hospital characteristics and HAC program penalization. An eight-point hospital quality summary score was created using hospital characteristics related to volume, accreditation, and offering of advanced care services. The relationship between the hospital quality summary score and HAC program penalization was examined. Publicly reported process-of-care and outcome measures were examined from four clinical areas (surgery, acute myocardial infarction, heart failure, pneumonia), and their association with the hospital quality summary score was evaluated.
Findings: Of the 3284 hospitals participating in the Hospital-Acquired Condition (HAC) program, 721 (22.0%) were penalized. Hospitals were more likely to be penalized if they were: major teaching hospitals (42.3%; OR, 1.58; 95% CI, 1.09-2.29) or very major teaching hospitals (62.2%; OR, 2.61; 95% CI, 1.55-4.39; vs non-teaching hospitals, 17.0%); they cared for more complex patient populations based on case mix index (quartile four vs quartile one: 32.8% vs 12.1%; OR, 1.98; 95% CI, 1.44-2.71); they were accredited by the Joint Commission (24.0% accredited, 14.4% not accredited; odds ratio [OR], 1.33; 95% CI, 1.04-1.70); or they were safety-net hospitals vs non-safety-net hospitals (28.3% vs 19.9%; OR, 1.36; 95% CI, 1.11-1.68). Hospitals with higher hospital quality summary scores had significantly better performance on 9 of 10 publicly reported process and outcomes measures compared with hospitals that had lower quality scores (all P ≤ .01 for trend). However, hospitals with the highest quality score of 8 were penalized significantly more frequently than hospitals with the lowest quality score of 0 (67.3% [37/55] vs 12.6% [53/422]; P < .001 for trend). Among hospitals participating in the HAC Reduction Program, hospitals that were penalized more frequently had more quality accreditation's, offered advanced services, were major teaching institutions, and had better performance on other process and outcome measures. These paradoxical findings suggest that the approach for assessing hospital penalties in the HAC Reduction Program merits reconsideration to ensure it is achieving the intended goals.

Data Source Year: 2014
Key Words: HAC reduction program, accreditation, hospital penalties, hospitals
Impact: Negative

Quality Improvements in Decreasing Medication Administration Errors made by Nursing Staff in an Academic Medical Center Hospital: A Trend Analysis during the Journey to Joint Commission International Accreditation and in the Post-Accreditation Era

Author(s): Wang HF, Jin JF, Feng XQ, Huang X, Zhu LL, Zhao XY, Zhou Q.
Year of Publication: 2015
Setting: Hospital
**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** Yes

**Purpose:** To assess experience in reducing Medication Administration Errors (MAEs) during the period before and after Joint Commission International accreditation.

**Design:** Descriptive Study

**Methods:** A 3-and-half-year intervention program focusing on MAEs in in-patient nursing care was performed in a 3,200-bed hospital in Zhejiang Province, People's Republic of China. Data mining was performed on MAEs derived from a compulsory electronic reporting system. Medication Administration Errors (MAEs) in hospitalized patients during the hospital's journey to Joint Commission International accreditation was compared to the post-Joint Commission International accreditation era (first half-year of 2011 to first half-year of 2014). Comprehensive interventions included organizational, information technology, educational, and process optimization-based measures.

**Findings:** During the journey to Joint Commission International accreditation and in the post-Joint Commission International accreditation era (first half-year of 2011 to first half-year of 2014) the number of (Medication Administration Errors) MAEs continuously decreased from 143 (first half-year of 2012) to 64 (first half-year of 2014), with a decrease in occurrence rate by 60.9% (0.338% versus 0.132%, P<0.05). The number of MAEs related to high-alert medications decreased from 32 (the second half-year of 2011) to 16 (the first half-year of 2014), with a decrease in occurrence rate by 57.9% (0.0787% versus 0.0331%, P<0.05). Omission was the top type of MAE during the first half-year of 2011 to the first half-year of 2014, with a decrease by 50% (40 cases versus 20 cases). Intravenous administration error was the top type of error regarding administration route, but it continuously decreased from 64 (first half-year of 2012) to 27 (first half-year of 2014). More experienced registered nurses made fewer medication errors. The number of MAEs in surgical wards was twice that in medicinal wards. Compared with non-intensive care units, the intensive care units exhibited higher occurrence rates of MAEs (1.81% versus 0.24%, P<0.001).

**Data Source Year:** 2011-2014


**Key Words:** medical errors, quality improvement, medication administration

**Impact:** Positive
Racial Disparities in Intravenous Recombinant Tissue Plasminogen Activator Use Persist at Primary Stroke Centers

Author(s): Aparicio HJ, Carr BG, Kasner SE, Kallan MJ, Albright KC, Kleindorfer DO, Mullen MT.


Year of Publication: 2015

Setting: Hospital

Accreditation Program: Not applicable

Certification Program: Disease-specific Care

International: No

Purpose: To examine the impact of primary stroke centers (PSCs) on racial disparities in rt-PA.

Design: Observational Study

Methods: Data was from the Nationwide Inpatient Sample from 2004 to 2010, limited to states that publicly reported hospital identity and race. Hospitals certified as primary stroke centers (PSCs) by The Joint Commission were identified. Adults with a diagnosis of ischemic stroke were analyzed.
Findings: Discharges (304,152 patients) from 26 states met eligibility criteria, and of these 71.5% were white, 15.0% black, 7.9% Hispanic, and 5.6% other. Overall, 24.7% of white, 27.4% of black, 16.2% of Hispanic, and 29.8% of other patients presented to primary stroke centers (PSCs). A higher proportion received rt-PA at primary stroke centers (PSCs) than non-PSCs in all race/ethnic groups (white 7.6% versus 2.6%, black 4.8% versus 2.0%, Hispanic 7.1% versus 2.4%, other 7.2% versus 2.5%, all P<0.001). In a multivariable model adjusting for year, age, sex, insurance, medical comorbidities, a diagnosis-related group–based mortality risk indicator, ZIP code median income, and hospital characteristics, blacks were less likely to receive rt-PA than whites at non-PSCs (odds ratio=0.58, 95% CI 0.50 to 0.67) and PSCs (odds ratio=0.63, 95% CI 0.54 to 0.74) and Hispanics were less likely than whites to receive rt-PA at PSCs (odds ratio=0.77, 95% CI: 0.63 to 0.95). In the fully adjusted model, interaction between race and presentation to a PSC for likelihood of receiving rt-PA did not reach significance (P=0.98). Racial disparities in intravenous rt-PA use were not reduced by presentation to PSCs. Black patients were less likely to receive thrombolytic treatment than white patients at both non-PSCs and PSCs. Hispanic patients were less likely to be seen at PSCs relative to white patients and were less likely to receive intravenous rt-PA in the fully adjusted model.

Data Source Year: 2004-2010
Link: https://www.ncbi.nlm.nih.gov/pubmed/26467999
Key Words: health disparities, health policy, stroke, stroke care, thrombolysis
Impact: Neutral

Pearls on Primary Stroke Center

Author(s): Hornik A, Morgan C, Platakis J, Morales-Vidal S.
Year of Publication: 2015
Setting: Hospital
Accreditation Program: Not applicable
Certification Program: Disease-specific Care
International: No
Purpose: To provide a practical summary of recommendations to develop a primary stroke center, including some pearls that result from the experience of the institution in the field.
Methods: This review discusses the brief history of organized stroke care in the United States, evidence to support the value that primary and comprehensive stroke centers may bring, and the criteria and certification process to become a primary or comprehensive stroke center.

Findings: The article provided a practical summary of the recommendations to develop a primary stroke center (PSC). The article also commented on the most important aspects of comprehensive stroke centers. There are over 800 primary stroke centers certified by The Joint Commission. Analysis of primary stroke center performance has indicated that establishment of PSCs with concomitant development of formal protocols for stroke care and measurement of adherence to the metrics has been associated with improvement in stroke care. One important step in the pathway to becoming a PSC, is the development of an acute stroke team (AST); written protocols for the use of intravenous thrombolytics in acute stroke have also been shown to enhance administration and reduce complications.

The article also commented on the experience of Loyola University Medical Center and their continued successful primary stroke center certification since 1995. In addition to following mandatory measures and key recommendations, it is optimal for hospitals attempting to obtain certification as a PSC to strive for the best care of stroke patients, providing evidence-based care, improving long-term outcomes, decreasing complications, improving patient satisfaction, improving public confidence in the institution's ability to provide stroke care, attracting and retaining qualified staff, decreasing cost of service delivery, and gaining recognition by various insurance companies and third party payees.

Data Source Year: Not Identified

Impact: Positive

The Impact of Hospital Accreditation on Quality Measures: An Interrupted Time Series Analysis

Author(s): Devkaran S, O'Farrell PN.
Journal Information: BMC Health Serv Res. 2015 Apr 3;15:137.
Year of Publication: 2015
The study was conducted in a 150-bed multispecialty hospital in Abu Dhabi, United Arab Emirates. The quality performance outcomes were observed over a 48 month period. The quality performance differences were compared across monthly intervals between two time segments, 1 year pre-accreditation (2009) and 3 years post-accreditation (2010, 2011 and 2012) for the twenty-seven quality measures. The principal data source was a random sample of 12,000 patient records drawn from a population of 50,000 during the study period (January 2009 to December 2012). Each month (during the study period), a simple random sample of 24 percent of patient records was selected and audited, resulting in 324,000 observations. The measures (structure, process, and outcome) are related to important dimensions of quality and patient safety.

The study findings showed that preparation for the accreditation survey results in significant improvement as 74% of the measures had a significant positive pre-accreditation slope. Accreditation had a larger significant negative effect (48% of measures) than a positive effect (4%) on the post accreditation slope of performance. Similarly, accreditation had a larger significant negative change in level (26%) than a positive change in level (7%) after the accreditation survey. Moreover, accreditation had no significant impact on 11 out of the 27 measures. However, there is residual benefit from accreditation three years later with performance maintained at approximately 90%, which is 20 percentage points higher than the baseline level in 2009. The authors concluded that although there is a transient drop in performance immediately after the survey, this study showed that the improvement achieved from accreditation is maintained during the three year accreditation cycle.

Data Source Year: 2009-2012
Link: https://www.ncbi.nlm.nih.gov/pubmed/25889013
Key Words: Joint Commission International
Impact: Positive
The Changing Use of Intravenous Opioids in an Emergency Department

Author(s): Sutter ME, Wintemute GJ, Clarke SO, Roche BM, Chenoweth JA, Gutierrez R, Albertson TE.


Year of Publication: 2015

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To determine if opioid use patterns in one emergency department changed from 2011, before The Joint Commission's 2012 sentinel event program "Safe Use of Opioids in Hospitals" began, to 2013, after the start of the program.

Design: Observational Study

Methods: This was a retrospective observational study of all adult emergency department patients who received an intravenous opioid and had a serum creatinine measured. Opioids used, dose prescribed, and serum creatinine were recorded. As an index of the safety of opioids, uses of naloxone after administration of an opioid was recorded.

Findings: Morphine was the most commonly used opioid by doses given, but its percentage of opioids used decreased from 68.9% in 2011 to 52.8% in 2013. During the same period, use of hydromorphine increased from 27.5% to 42.9%, while the use of fentanyl changed little (3.6% to 4.3%). The authors concluded that The Joint Commission program was at least indirectly responsible for the changes in relative dosing of opioids. Naloxone administration was rare after an opioid had been given. Opioids were not dosed in an equipotent manner.

Data Source Year: 2011-2013

Link: https://www.ncbi.nlm.nih.gov/pubmed/26759658

Key Words: medication safety, opioids

Impact: Positive

Accreditation of Healthcare Facilities: A Friend or Foe?

Author(s): Zaman MU, Fatima N.
Purpose: To provide a prospective on the incentives and disincentives to seek accreditation.

Design: Not a Study

Methods: Editorial review on the accreditation of healthcare organizations. Provides a brief description of incentives and challenges related to the healthcare organizations' pursuit of accreditation.

Findings: The incentives for a healthcare facility to get accredited are: better chances of funding, better business opportunities and reputation as a certified healthcare facility geared towards patients' safety and care. In United States, an accredited healthcare facility gets eligibility for medicare and other governmental healthcare programs. Joint Commission on Accreditation of Healthcare Organization (JCAHO) gives accredited facility a deemed status for meeting health and safety standards for medicare and medicaid.

Disincentives for seeking accreditation include stringent standards and performance criteria which discourages many healthcare facilities to proceed for accreditation. Another important factor is the cost incurred in the process of obtaining accreditation. In general, amount to be paid to the accreditation body makes only 10% of total cost with the remaining 90% related to site preparation, up-gradation of infrastructure and staff training prior to the survey. Another possible disincentive for accreditation is possible negative impact on the rate of service delivery due to too many checks. These checks, in attempting to maintain the accreditation as de-certification by the accrediting body, would have a serious and negative impact and would put the reputation of the organization at stake.

Data Source Year: Not Identified

Link: https://www.ncbi.nlm.nih.gov/pubmed/26454383

Key Words: cost, incentives, accreditation

Impact: Positive
Pressure and Performance: Buffering Capacity and the Cyclical Impact of Accreditation Inspections on Risk Adjusted Mortality

Author(s): Towers TJ, Clark J.


Year of Publication: 2014

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To assess (1) the extent to which mortality rates change with the inspection cycle; (2) the extent to which organizational characteristics provide a "buffering capacity," or a shield against the ebbs and flows of the inspection cycle; and (3) the extent to which fluctuation in mortality rates is ameliorated when site visits are unannounced.

Design: Observational Study

Methods: Data source was 10 years' hospital discharge data (1999-2008) for 58 New Jersey hospitals from HCUP State Inpatient Database. Employed ordinary least squares regression models with dependent variable of monthly risk-adjusted mortality rate and independent variables including time to site visit, system affiliation and technological status, teaching status, admission rates, unannounced visit (y/n).

Findings: Lower mortality rates were found among low technology hospitals one month post visit. No effect of whether visit was unannounced. While hospitals with low technological status experience temporarily lower mortality rates immediately following an inspection ($j3 = -0.0964, p < .01$), hospitals with high technological status do not. The authors concluded that in low technology hospitals: (1) accreditation site visits trigger changes in patient care processes—changes that presumably bring these processes into closer alignment with Joint Commission standards; (2) these changes in processes result in improved rates of mortality; and (3) the process changes tend to evaporate in the weeks immediately following the site visit.

Data Source Year: 1999-2008


Key Words: hospitals, mortality

Impact: Mixed
<table>
<thead>
<tr>
<th><strong>An Outpatient Antibacterial Stewardship Intervention during the Journey to JCI Accreditation</strong></th>
</tr>
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<tbody>
<tr>
<td><strong>Author(s):</strong> Song P, Li W, Zhou Q.</td>
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<tr>
<td><strong>Journal Information:</strong> BMC Pharmacol Toxicol. 2014 Feb 26;15:8.</td>
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<td><strong>Year of Publication:</strong> 2014</td>
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<td><strong>Setting:</strong> Hospital</td>
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<td><strong>Accreditation Program:</strong> Hospital (HAP)</td>
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<tr>
<td><strong>Certification Program:</strong> Not applicable</td>
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<td><strong>International:</strong> Yes</td>
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<tr>
<td><strong>Purpose:</strong> To examine the effectiveness of stewardship intervention in the outpatient setting and provide some reference for international counterparts.</td>
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<tr>
<td><strong>Design:</strong> Uncontrolled Before-After Study</td>
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<tr>
<td><strong>Methods:</strong> A before-after intervention study, aiming at antibacterial use in outpatients, was performed in a university-affiliated hospital with 2.8 million outpatient visits annually during the journey to Joint Commission International (JCI) accreditation (March of 2012 - March of 2013). Comprehensive intervention measures included formulary adjustment, classification management, motivational, information technological, educational and organizational measures. A defined daily dose (DDD) methodology was applied. Pharmacoeconomic data and drug-related problems (DRPs) were statistically compared between the two phases.</td>
</tr>
</tbody>
</table>
Findings: The one-year intervention program on outpatient antibacterial use during the journey to Joint Commission International accreditation reduced the expenditure on antibacterials, improved the appropriateness of antibacterial prescriptions.

The variety of antibacterials available in outpatient pharmacy decreased from 38 to 16. The proportion of antibacterial prescriptions significantly decreased (12.7% versus 9.9%, P < 0.01). The proportion of prescriptions containing the restricted antibacterials was 30.4% in the second phase, significantly lower than the value of 44.7% in the first phase (P < 0.01). The overall proportion of oral versus all antibacterial prescriptions increased (94.0% to 100%, P < 0.01) when measured as defined daily doses. Statistically significant increases in relative percentage of DDDs of oral antibacterials (i.e., DDDs of individual oral antibacterial divided by the sum of DDDs of all antibacterials) were observed with moxifloxacin, levofloxacin, cefuroxime axetil, ornidazole, clindamycin palmitate, cefaclor, amoxicillin, and clarithromycin. Occurrence rate of DRPs decreased from 13.6% to 4.0% (P < 0.01), with a larger decrease seen in surgical clinics (surgical: 19.5% versus 5.6%; internal medicine: 8.4% versus 2.8%, P < 0.01). The total expenditure on antibacterials for outpatients decreased by 34.7% and the intervention program saved about 6 million Chinese Yuan Renminbi (CNY) annually.

Data Source Year: 2012-2013
Key Words: accreditation, antibacterial prescriptions, antibacterial stewardship, outpatient
Impact: Positive

Compliance with Acute Stroke Care Quality Measures in Hospitals with and without Primary Stroke Center Certification: The North Carolina Stroke Care Collaborative

Author(s): Johnson AM, Goldstein LB, Bennett P, O'Brien EC, Rosamond WD; investigators of the Registry of the North Carolina Stroke Care Collaborative.
Year of Publication: 2014
Setting: Hospital
Accreditation Program: Not applicable

Certification Program: Disease-specific Care

International: No

Purpose: To examine differences in changes in the quality of acute stroke care at Joint Commission-certified Primary Stroke Centers (PSCs) versus non-PSCs over time.

Design: Controlled Before and After Study

Methods: This study compared compliance with the Joint Commission's 10 acute stroke care performance measures and defect-free care in Primary Stroke Centers (PSCs) and non-PSCs participating in the Registry of the North Carolina Stroke Care Collaborative from January 2005 through February 2010. It included 29,654 cases presenting at 47 hospitals-10 PSCs, eight preparing for certification, and 29 non-PSCs-representing 43% of North Carolina's non-Veterans Affairs, acute care hospitals.

Findings: Performance measure compliance increased for all measures for all 3 groups in 2005-2010, with the exception of discharge on antithrombotics, which remained consistently high. Primary Stroke Centers (PSCs) and hospitals preparing for certification had better compliance with all but 2 performance measures compared with non-PSCs (each P<0.01). Defect-free care was delivered most consistently at hospitals preparing for certification (52.8%), followed by PSCs (45.0%) and non-PSCs (21.9%). Between 2005 and 2010, PSCs and hospitals preparing for certification had a higher average annual percent increase in the provision of defect-free care (P=0.01 and 0.04, respectively) compared with non-PSCs.

While room for improvement remains, Primary Stroke Center (PSC) certification is associated with an overall improvement in the quality of stroke care in North Carolina.

Data Source Year: 2005-2010

Link: http://www.ncbi.nlm.nih.gov/pubmed/24721795

Key Words: hospitals, stroke certification

Impact: Positive

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Evidence-Based Treatment for Opioid Disorders: A 23-year National Study of Methadone Dose Levels

Author(s): D'Aunno T, Pollack HA, Frimpong JA, Wuchiett D.

<table>
<thead>
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<th>Year of Publication:</th>
<th>2014</th>
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<td>Setting:</td>
<td>Behavioral health outpatient</td>
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<tr>
<td>Accreditation Program:</td>
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<tr>
<td>Certification Program:</td>
<td>Not applicable</td>
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<tr>
<td>International:</td>
<td>No</td>
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<tr>
<td>Purpose:</td>
<td>To examine the extent in which US methadone maintenance treatment (MMT) programs made changes in the 23 years preceding the study to provide adequate methadone doses; also to identify factors associated with variation in program performance.</td>
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<tr>
<td>Design:</td>
<td>Observational Study</td>
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<tr>
<td>Methods:</td>
<td>Program directors and clinical supervisors of nationally-representative methadone treatment programs were surveyed in 1988 (n=172), 1990 (n=140), 1995 (n=116), 2000 (n=150), 2005 (n=146), and 2011 (n=140).</td>
</tr>
<tr>
<td>Findings:</td>
<td>Efforts to improve methadone treatment practices have made substantial progress, but 23% of patients across the nation are still receiving doses that are too low to be effective. Results show that the proportion of patients who received doses below 60 mg/day—the minimum recommended—declined from 79.5 to 22.8% in a 23-year span.</td>
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<td>Data Source Year:</td>
<td>1988, 1990, 2011</td>
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<tr>
<td>Key Words:</td>
<td>dose levels, methadone, opioid, opioid disorders, organizational correlates</td>
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<tr>
<td>Impact:</td>
<td>Positive</td>
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</table>
Hospital and Demographic Characteristics Associated with Advanced Primary Stroke Center Designation

**Author(s):** McDonald CM, Cen S, Ramirez L, Song S, Saver JL, Mack WJ, Sanossian N.

**Journal Information:** Stroke. 2014 Dec;45(12):3717-9.

**Year of Publication:** 2014

**Setting:** Hospital

**Accreditation Program:** Not applicable

**Certification Program:** Disease-specific Care

**International:** No

**Purpose:** To determine hospital-based factors associated with achievement of Primary Stroke Centers (PSC) certification.

**Design:** Cross-Sectional Study

**Methods:** The 2011 American Hospital Association survey and the 2010 national census for population and household data were used to identify hospital and demographic factors influencing certification as a Primary Stroke Centers (PSC) by the Joint Commission, Healthcare Facilities Accreditation Program, and DNV Healthcare.

**Findings:** Of the 3,696 hospitals to complete the survey, the 3,069 fulfilling study criteria included 908 Primary Stroke Centers (PSC) (31%) and 2161 non-PSC. Less than one in every three hospitals achieve PSC certification. Independent hospital characteristics associated with PSC certification were Joint Commission accreditation (odds ratio [OR], 3.5; 95% confidence interval [CI], 2.4–5.0), increasing size (per quartile in number of beds; OR, 2.5; 95% CI, 2.1–3.1) and inpatient neurological services (OR, 3.2; 95% CI, 2.4–4.6), number of households per zip code (per 1000 households; OR, 1.1; 95% CI, 1.0–1.2), increasing Hispanic population (by 10% increase; OR, 1.1; 95% CI, 1.0–1.2), and income per household (per $10,000; OR, 1.2; 95% CI, 1.1–1.3). Designation as a sole community provider (OR, 0.22; 0.10–0.47) or governmental hospital control (0.61; 0.44–0.84) was associated with noncertification.

**Data Source Year:** 2011-2013

**Link:** https://www.ncbi.nlm.nih.gov/pubmed/25388418

**Key Words:** hospitals, stroke certification

**Impact:** Positive
Incidence of Infection after Mohs Micrographic and Dermatologic Surgery Before and After Implementation of New Sterilization Guidelines

Author(s): Liu A, Lawrence N.


Year of Publication: 2014

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To determine whether recently established guidelines for the sterilization of surgical instruments have had any clinical impact on post-surgical infection rates.

Design: Uncontrolled Before-After Study

Methods: Infections rates after excisional and Mohs micrographic surgery before and after implementation of new Joint Commission sterilization guidelines were examined retrospectively. All surgeries were performed at an academic outpatient office.

Findings: The review of infections rates after excisional and Mohs micrographic surgery before and after implementation of new Joint Commission sterilization guidelines revealed no impact on post-surgical infection rates. In all, 1415 patients underwent a total of 1688 surgeries. No significant differences were observed in mean patient age (P = .113), mean number of Mohs micrographic surgical levels (P = .067), final defect size (P = .305), patient gender (P = .072), repair type (P = .691), or infection rate (P = .453). No major differences in predisposing factors were identified in patients who developed post-surgical infections. Changes in surgical instrument sterilization protocols had no impact on post-surgical infection rates. The authors conclude that the implementation of such guidelines places an additional burden on the health care system without providing any improvement in patient outcomes.

Data Source Year: 2010-2012


Key Words: hospital, infection rates

Impact: Neutral
The Impact of Accreditation on Quality of Care: Perception of Nurses in Saudi Arabia

Author(s): Jaber HM.

Journal Information: Diss. Walden University, 2014.

Year of Publication: 2014

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: Yes

Purpose: To assess nurses’ perceptions of the impact of Joint Commission International accreditation on health care quality and to explore the perceived contributing factors that might affect the quality of care.

Design: Cross-Sectional Study

Methods: Participants from one accredited and another non-accredited hospital in Saudi Arabia formed the purposive non-probability sample that included 353 nurses. The Wilcoxon rank sum test was used to compare nurses’ assessments of quality at the accredited and non-accredited hospitals. Correlation analysis was carried out to assess the relationship between the accreditation and quality results scales for nurses from the accredited hospital. Spearman correlation analysis was used to examine association between quality improvement activities (leadership, commitment and support, strategic quality planning, human resources utilization, quality management, and use of data) and quality of care ratings by nurses.

Findings: The results indicated that Joint Commission International accreditation has a significant impact on quality of care ratings by nurses. Correlation analysis showed a significantly positive correlation between the nurses’ perception of accreditation and the perception of quality of care ($r = .54, p < .0001$), with an $R^2$ value of .25. Multiple regression analysis showed that leadership commitment was the best predictor of quality of care as perceived by nurses. The authors conclude that this study may foster social change by encouraging hospital administrators and policy makers, particularly in developing countries, to implement quality improvement programs that will eventually improve the health care system in their countries.

Data Source Year: Not Identified

Impact: Positive
The Impact of Hospital Accreditation on Clinical Documentation Compliance: A Life Cycle Explanation Using Interrupted Time Series Analysis

Author(s): Devkaran S, O'Farrell PN.


Year of Publication: 2014

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: Yes

Purpose: To evaluate whether accredited hospitals maintain quality and patient safety standards over the accreditation cycle by testing a life cycle explanation of accreditation on quality measures. Four distinct phases of the accreditation life cycle were defined based on the Joint Commission International process. Predictions concerning the time series trend of compliance during each phase were specified and tested.

Design: Interrupted Time Series

Methods: An interrupted time series (ITS) regression analysis of 23 quality and accreditation compliance measures. The setting was a 150-bed multispecialty hospital in Abu Dhabi, UAE. For each month (over 48 months) a simple random sample of 24% of patient records was audited, resulting in 276,000 observations collected from 12,000 patient records, drawn from a population of 50,000.
Findings: The four phases of the life cycle are as follows: the initiation phase, the presurvey phase, the post-accreditation slump phase and the stagnation phase. The Life Cycle Model explains 87% of the variation in quality compliance measures ($R^2=0.87$). The ITS model not only contains three significant variables ($\beta_1$, $\beta_2$ and $\beta_3$) ($p \leq 0.001$), but also the size of the coefficients indicates that the effects of these variables are substantial ($\beta_1=2.19$, $\beta_2=-3.95$ (95% CI -6.39 to -1.51) and $\beta_3=-2.16$ (95% CI -2.52 to -1.80).

There is a post accreditation slump in compliance, however this follows a plateau in compliance at a level of 20 percentage points higher than the pre-accreditation survey levels of compliance. The authors conclude that although there was a reduction in compliance immediately after the accreditation survey, the lack of subsequent fading in quality performance should be a reassurance to researchers, managers, clinicians and accreditors. Also, at a microlevel, the findings of this research demonstrate that a private hospital can use accreditation to improve quality.

Data Source Year: 2009, 2010 - 2012
Link: https://www.ncbi.nlm.nih.gov/pubmed/25095876
Key Words: accreditation, hospitals
Impact: Positive

Validation of The Joint Commission Exclusion Criteria for Elective Early-Term Delivery

Author(s): Clark SL, Meyers JA, Milton CG, Frye DR, Horner S, Baker A, Perlman JB.
Year of Publication: 2014
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To evaluate whether current Joint Commission exclusion criteria for perinatal care measure PC-01, "Elective Delivery" before 39 weeks of gestation, accurately identify valid, codeable indications for planned early-term delivery.
Design: Descriptive Study
Methods: This study utilized a review and critical analysis of all cases recorded as non-compliant for the measure - perinatal care measure PC-01, 'Elective Delivery' before 39 weeks of gestation, in a large health care system during the second half of 2012.

Findings: During the study period, of 107,145 total deliveries, 205 cases were reported as non-compliant with PC-01. Ten percent of compliance fallouts (ie, cases coded as non-compliant) resulted from valid indications for delivery identifiable by International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) coding not included on the Joint Commission exclusion list; these were primarily unusual or extreme variations of these conditions. Twenty-five percent of fallouts represented valid indications not represented by an ICD-9-CM code. Eight percent of cases were reported as fallouts as a result of imprecise physician charting; only 2% represented chart abstraction errors. Fifty-five percent of cases involved stated indications for early-term delivery not generally recognized as such by the medical community. Compliance rates of 98% are achievable across a large population using the current ICD-9-CM-based metric for compliance assessment used by the Joint Commission (PC-01). The current exclusion list does not appear to be amenable to further improvement by inclusion of more or different ICD-9-CM codes. However, given the low volumes generated using the current PC-01 denominator definition, approximately 60% of facilities would have compliance rates below a 95% benchmark with even a single justified outlier if analyzed on a quarterly basis. Thus, the current Joint Commission exclusion criteria for this measure identify the vast majority of valid indications for early-term delivery used by obstetrician-gynecologists and identifiable with ICD-9-CM codes.

Data Source Year: 2012
Key Words: hospitals
Impact: Positive

A Non-Experimental Study of Oral Anticoagulation Therapy Initiation Before and After National Patient Safety Goals

Author(s): Beadles CA, Lich KH, Viera AJ, Greene SB, Brookhart MA, Weinberger M.
Year of Publication: 2014
**Setting:** Hospital  
**Accreditation Program:** Hospital (HAP)  
**Certification Program:** Not applicable  
**International:** No  
**Purpose:** To examine the effect of including oral anticoagulation therapy (OAT) in The Joint Commission's National Patient Safety Goals (NPSGs) on historically low rates of OAT initiation for individuals with incident atrial fibrillation (AF).

**Design:** Cohort Study

**Methods:** Data from 944,500 individuals enrolled between January 2006 and December 2010, supplemented with data from the Area Resource File and Online Survey, Certification and Reporting data network. Evaluated oral anticoagulation therapy (OAT) initiation before and after the 2008 NPSGs revisions in a retrospective cohort new user design with an atrial fibrillation intervention group and two control groups: a positive control—patients estimated to be at very high risk of thromboembolism (mechanical heart valve and pulmonary embolism); and a negative control—patients with very low perceived risk of thromboembolism (paroxysmal AF). Developed multivariable models using a difference-in-difference parameterization. Effects were estimated with generalized estimating equations.

**Findings:** Oral anticoagulation therapy (OAT) initiation was low (26.8%) for eligible individuals with incident AF in 2006–2008 but increased after NPSGs implementation (31.7%, p=0.022). OAT initiation was high but decreased in the positive control group (67.5% vs 62.0%, p=0.003). Multivariate analysis resulted in a relative 11% (95% CI) (4% to 18%), p<0.01) increase in OAT initiation for incident atrial fibrillation (AF) patients.

**Data Source Year:** 2006-2010  
**Key Words:** national patient safety goals, oral anticoagulation therapy  
**Impact:** Positive

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**Association Between Hospital-Level Obstetric Quality Indicators and Maternal and Neonatal Morbidity**

**Author(s):** Howell EA, Zeitlin J, Hebert PL, Balbierz A, Egorova N.


**Year of Publication:** 2014
**Setting:** Hospital  
**Accreditation Program:** Hospital (HAP)  
**Certification Program:** Not applicable  
**International:** No  

**Purpose:** To examine whether two Joint Commission obstetric quality indicators are associated with maternal and neonatal morbidity.

**Design:** Observational Study

**Methods:** Population-based observational study using linked New York City discharge and birth certificate data sets from 2010. All delivery hospitalizations were identified and two perinatal quality measures were calculated (elective, non-medically indicated deliveries at 37 or more weeks of gestation and before 39 weeks of gestation; cesarean delivery performed in low-risk mothers). Published algorithms were used to identify severe maternal morbidity (delivery associated with a life-threatening complication or performance of a lifesaving procedure) and morbidity in term newborns without anomalies (births associated with complications such as birth trauma, hypoxia, and prolonged length of stay). Mixed-effects logistic regression models were used to examine the association between maternal morbidity, neonatal morbidity, and hospital-level quality measures while risk-adjusting for patient socio-demographic and clinical characteristics.
Findings: Severe maternal morbidity occurred among 2372 of 115,742 deliveries (2.4%), and neonatal morbidity occurred among 8057 of 103,416 term newborns without anomalies (7.8%). Rates for elective deliveries performed before 39 weeks of gestation ranged from 15.5 to 41.9 per 100 deliveries among 41 hospitals. There were 11.7 to 39.3 cesarean deliveries per 100 deliveries performed in low-risk mothers. Maternal morbidity ranged from 0.9 to 5.7 mothers with complications per 100 deliveries and neonatal morbidity from 3.1 to 21.3 neonates with complications per 100 births. The maternal quality indicators elective delivery before 39 weeks of gestation and cesarean delivery performed in low-risk mothers were not associated with severe maternal complications (risk ratio [RR], 1.00 [95% CI, 0.98-1.02] and RR, 0.99 [95% CI, 0.96-1.01], respectively) or neonatal morbidity (RR, 0.99 [95% CI, 0.97-1.01] and RR, 1.01 [95% CI, 0.99-1.03], respectively).

Rates for the quality indicators elective delivery before 39 weeks of gestation and cesarean delivery performed in low-risk mothers varied widely in New York City hospitals, as did rates of maternal and neonatal complications. However, there were no correlations between the quality indicator rates and maternal and neonatal morbidity. Current quality indicators may not be sufficiently comprehensive for guiding quality improvement in obstetric care.

Data Source Year: 2010
Link: http://www.ncbi.nlm.nih.gov/pubmed/25321908
Key Words: neonatal morbidity, perinatal quality measure, quality indicators maternal morbidity
Impact: Neutral
Purpose: To examine hospital and market characteristics that were associated with hospital-level rates of postoperative venous thromboembolism (VTE) imaging, focusing on hospitals with particularly high rates.

Design: Observational Study

Methods: For Medicare beneficiaries undergoing 11 major operations (2009-2010) at 2820 hospitals, hospital-level postoperative VTE imaging use rates were calculated. Hospital characteristics associated with hospital VTE imaging use rates were examined including case severity, size, ownership, VTE process measure adherence, accreditations, staffing, malpractice environment, and county market factors. Associations between explanatory variables and VTE imaging rates were assessed using quantile regressions at the 25th, median, 75th and 90th quantiles.

Findings: Mean postoperative VTE imaging rates ranged from 85.26 (SD=67.38) per 1000 discharges in the lowest quartile of hospitals ranked by VTE imaging rates to 168.86 (SD=76.70) in the highest quartile. Drivers of high imaging rates at the 90th quantile were high resident-to-bed ratio (coefficient=51.35, p<0.01), Joint Commission accreditation (coefficient=19.05, p<0.01), presence of other hospitals in the same market with high imaging rates (coefficient=15.29, p<0.01), average case severity (coefficient=11.97, p<0.01), local malpractice costs (coefficient=11.29, p<0.01), and market competition (coefficient=11.03, p<0.01).

The authors concluded that hospital teaching status, resident-to-bed ratio, malpractice environment and local market factors drive hospital postoperative VTE imaging use, suggesting that non-clinical forces predominantly drive hospital VTE imaging practices.

Data Source Year: 2009-2010

Link: https://www.ncbi.nlm.nih.gov/pubmed/25136140

Key Words: Venous Thromboembolism, Imaging

Impact: Positive

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Science-Based and Practice-Based Innovativeness and Performance of Substance Abuse Treatment Facilities

Author(s): Nayar P, Yu F, Apenteng B.


Year of Publication: 2014
Setting: Behavioral health hospital
Accreditation Program: Behavioral Health Care (BHC)
Certification Program: Not applicable
International: No

Purpose: To examine the influence of the use of innovative organizational practices, both science based (psychosocial interventions) and practice based, on the organizational performance of substance abuse treatment facilities (SATFs).

Design: Cross-Sectional Study

Methods: Cross-sectional data on 13,513 substance abuse treatment facilities (SATFs) in the United States, obtained from the National Survey of Substance Abuse Treatment Services 2009 database were used to assess performance.

Findings: Multinomial logistic regression models found a positive association between the use of science-based innovations and practice-based innovations and organizational performance, that is, the provision of comprehensive (core and wraparound) services. Substance abuse treatment facilities (SATFs) that were located in metropolitan areas, those accredited by the Commission on Accreditation of Rehabilitation Facilities and Joint Commission, that had a mixed (Substance Abuse and Mental Health) focus or were recipients of earmark funds also had higher organizational performance. The results signify that substance abuse facilities that are high innovators in terms of implementing science based and practice-based innovative practices have higher organizational performance. Organizations that have institutionalized these practices have invested considerable resources in innovation. The shown higher organizational performance provides justification for the organizational investment in innovation.

Data Source Year: 2009
Key Words: substance abuse, organizational performance, accreditation
Impact: Positive

Joint Commission Primary Stroke Centers Utilize More rt-PA in the Nationwide Inpatient Sample

Author(s): Mullen MT, Kasner SE, Kallan MJ, Kleindorfer DO, Albright KC, Carr BG.
Year of Publication: 2013
Setting: Hospital
Accreditation Program: Not applicable
Certification Program: Disease-specific Care
International: No

Purpose: To compare utilization of rt-PA at primary stroke centers (PSCs) and non-certified hospitals in a nationwide all-payer, age ≥18 cohort. The authors hypothesized that PSCs would administer rt-PA to a significantly higher proportion of patients than would non-PSCs.

Design: Observational Study

Methods: Data from the Nationwide Inpatient Sample from 2004 to 2009 was utilized and analysis was limited to states that publicly reported hospital identity. All patients ≥18 years with a primary diagnosis of acute ischemic stroke were included. Subjects were excluded if the treating hospital was not identified, if it was not possible to determine the temporal relationship between certification and admission, and/or if admitted as a transfer. Rt-PA was defined by ICD9 procedure code 99.10. All eligibility criteria were met by 323,228 discharges from 26 states. Multivariate model adjusted for year, age, sex, race, insurance, income, co-morbidities, severity, hospital characteristics

Findings: Overall 323,228 discharges from 26 states, 19.5% from certified PSCs. IV rt-PA use 3.1% overall (2.2% no PSCs vs 6.7% at PSCs). Between 2004 and 2009 rt-PA administration increased from 1.4 to 3.3% in non PSCs and from 6.0 to 7.6% at PSCs. Subjects evaluated at PSCs were significantly more likely to receive rt-PA after risk adjustment. Systems of care are necessary to ensure stroke patients have timely access to PSCs.

Data Source Year: 2004-2009
Key Words: acute stroke, stroke certification
Impact: Positive

An Early Look at Performance on the Emergency Care Measures Included in Medicare's Hospital Inpatient Value-Based Purchasing Program

Author(s): McHugh M, Neimeyer J, Powell E, Khare RK, Adams JG.
Year of Publication: 2013
Setting: Hospital
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**Purpose:** To describe hospital reporting on the four emergency department (ED)-related program measures, variation in performance on the ED measures across hospital characteristics, and the characteristics of hospitals that were more likely to receive performance scores based on improvement versus achievement.

**Design:** Descriptive Study

**Methods:** An exploratory, descriptive analysis merged 2008 to 2010 performance data from Hospital Compare with the 2009 American Hospital Association Annual Survey and calculated a composite score for the four ED measures and used Kruskal-Wallis tests to examine differences in performance across hospital characteristics. The study also examined differences in the percentage of scores that were awarded according to improvement versus achievement.

**Findings:** There were 2,927 hospitals that qualified for the value-based purchasing program and were included in the analysis. For-profit hospitals received the highest scores; public hospitals and hospitals lacking The Joint Commission accreditation received the lowest scores. Public hospitals had the largest share of scores awarded according to improvement (39.8%); for-profit hospitals had the lowest (27.8%). This study found variation in performance by hospital characteristics on the ED-related program measures. Although public and non-Joint Commission-accredited hospitals trailed in performance, they showed strong signs of improvement, signaling that performance gaps by ownership and accreditation may decrease. The authors concluded that considering the increasing scope of the value-based purchasing program, ED leaders should monitor both achievement and improvement on the four ED-related program measures. The lowest performing hospitals were those that were not accredited by the Joint Commission.

**Data Source Year:** 2008-2010


**Key Words:** emergency care measures, hospitals, value based purchasing

**Impact:** Positive
Are Racial Disparities in Stroke Care Still Prevalent in Certified Stroke Centers


Year of Publication: 2013
Setting: Hospital
Accreditation Program: Not applicable
Certification Program: Disease-specific Care
International: No

Purpose: To explore racial differences in the delivery of care to patients with acute stroke between Joint Commission-certified hospitals and non-certified hospitals.

Design: Observational Study

Methods: A retrospective chart review was conducted in patients sustaining ischemic stroke admitted to five Joint Commission-certified centers and five non-certified hospitals. Racial disparities were investigated in the entire group as well as for Joint Commission-certified and non-certified hospitals separately. Demographic data, risk factors, utilization of acute stroke therapies, and compliance with core measures were collected. A total of 574 patients (25.1% African Americans) were included.

Findings: Joint Commission certification reduced disparity in certain variables, including tPA and deep venous thrombosis prophylaxis administration. Important racial disparities exist in the delivery of several acute stroke care variables. African American subjects fared better in all core measures at a Joint Commission-certified center than at a non-certified center.

Data Source Year: Not Identified

Link: https://www.ncbi.nlm.nih.gov/pubmed/22078781

Key Words: certification, hospital, primary stroke center, racial differences

Impact: Positive

Correlates of Improved Influenza Vaccination of Healthcare Personnel: A Survey of Hospitals in Louisiana

Author(s): Fricke, KL, Gastanaduy MM, Klos R, Begue’ RE.

Year of Publication: 2013
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No

Purpose: To describe practices for influenza vaccination of healthcare personnel (HCP) with emphasis on correlates of increased vaccination rates.

Design: Cross-Sectional Study

Methods: A survey method was utilized with all hospitals in Louisiana invited to participate. A 17-item questionnaire inquired about the hospital type, patients served, characteristics of the vaccination campaign, and the resulting vaccination rate.

Findings: Of 254 hospitals, 153 (60%) participated and were included and 124 responses received. Most programs (64%) required that Healthcare Personnel (HCP) either receive the vaccine or sign a declination form, and the rest were exclusively voluntary (36%); no program made vaccination a condition of employment. The median vaccination rate was 67%, and the vaccination rate was higher among hospitals that were accredited by the Joint Commission; provided acute care; served children, pregnant women, oncology patients, or intensive care unit patients; required a signed declination form; or imposed consequences for unvaccinated HCP (the most common of which was to require that a mask be worn on patient contact). Hospitals that provided free vaccine, made vaccine widely available, advertised the program extensively, required a declination form, and imposed consequences had the highest vaccination rates (median, 86%; range, 81%–91%).

Data Source Year: 2012
Link: https://www.ncbi.nlm.nih.gov/pubmed/23739077
Key Words: accreditation, hospitals, vaccinations
Impact: Positive

Incidence of Neurosurgical Wrong-Site Surgery Before and After Implementation of the Universal Protocol

Author(s): Vachhani JA, Klopfenstein JD.
Year of Publication: 2013
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No

Purpose: To assess the effect of implementation of the Universal Protocol (UP) on the incidence of neurosurgical wrong-site surgery at the University of Illinois College of Medicine at Peoria/Illinois Neurological Institute.

Design: Uncontrolled Before-After Study

Methods: The Morbidity and Mortality Database in the Department of Neurosurgery was reviewed to identify all recorded cases of WSS since 1999. This was compared with the total operative load (excluding endovascular procedures) of all attending neurosurgeons to determine the incidence of overall WSS. A comparison was then made between the incidences before and after UP implementation.

Findings: Fifteen WSS events were found with an overall incidence of 0.07% and Poisson 95% confidence interval of 8.4 to 25. All but one of these were wrong-level spine surgeries (14/15). There was only 1 recorded case of wrong-side surgery and this occurred after implementation of the UP. A statistically greater number of WSS events occurred before (n = 12) in comparison with after (n = 3) UP implementation (P < .001). A statistically significant reduction in overall WSS was seen after implementation of the UP. This reduction can be attributed to less frequent wrong-level spine surgery. There was no case of wrong procedure or patient surgery and the 1 case of wrong-side surgery occurred after UP implementation.

Data Source Year: 1999-2011
Key Words: universal protocol, wrong-site surgery
Impact: Positive

Thrombolysis for Acute Aschemic Stroke in Joint Commission-Certified and Noncertified Hospitals in Michigan

Author(s): Rajamani K, Millis S, Watson S, Mada F, Salowich-Palm L, Hinton S, Chaturvedi S.

Year of Publication: 2013
Setting: Hospital
Accreditation Program: Not applicable
Certification Program: Disease-specific Care
International: No

Purpose: To examine the delivery of care for patients with acute ischemic stroke and to compare differences in Joint Commission-certified and non-certified centers in Michigan.

Design: Observational Study

Methods: A systematic chart review of patients with acute ischemic stroke from 10 Michigan hospitals was performed, half of whom were Joint Commission-certified primary stroke certification centers (PSCs). Sixty charts were randomly chosen from 1 calendar year from each hospital. An experienced nurse performed the data abstraction, and data analysis was performed with the Fisher exact test.
Findings: A total of 602 charts—of which 302 were from Joint Commission-certified primary stroke centers (PSCs)—were chosen for the study. The 2 groups were similar with regard to stroke risk factors except that there were significantly more patients with atrial fibrillation in non-certified centers and there were more African American patients in Joint Commission-certified PSCs. Significantly more patients were considered for thrombolytic therapy in Joint Commission-certified PSCs compared to non-certified centers (90.4% vs 66%; P = .0001). Overall, 3.8% of patients had received thrombolytic therapy without any significant difference between Joint Commission-certified PSCs and non-certified centers (4.6% vs 3%; adjusted odds ratio 1.64; 95% confidence interval 0.64-4.19; P = .87). However, thrombolysis rates among eligible patients was significantly higher in the Joint Commission-certified PSCs (48.2% vs 8.8%; P = .0001). The most common reason documented for not giving thrombolytic therapy was late arrival outside the therapeutic window, which was more common in Joint Commission-certified PSCs (72.8% vs 55.6%; P = .0001) compared to non-certified centers. Seventy-four percent of patients from Joint Commission-certified PSCs were discharged home or to inpatient rehabilitation facility compared to 71% (P = .38) from non-certified hospitals. The mean length of stay was marginally shorter in Joint Commission-certified PSCs compared to non-certified centers (5.53 vs 6.25 days; P = .08). Rates of thrombolysis administration for acute stroke patients across Michigan were low in both Joint Commission-certified and non-certified hospitals, although better processes were in place in Joint Commission-certified PSCs. While there was no overall difference in the administration of thrombolytic treatment, a greater number of the eligible patients received thrombolysis in the certified centers. There was a tendency to shorter lengths of stay at Joint Commission-certified PSCs, but there was no significant difference in discharge to home, inpatient rehabilitation, or inpatient mortality in this study.

Data Source Year: 2006


Key Words: acute stroke, primary stroke centers, stroke certification, thrombolysis

Impact: Neutral
Treatment Outcomes Differences Between Youth Offenders from a Rural Joint Commission Accredited Residential Treatment Center and a Rural Non-accredited Center

Author(s): Coll KM, Sass M, Freeman BJ, Thobro P, Hauser N.


Year of Publication: 2013

Setting: Behavioral health outpatient

Accreditation Program: Behavioral Health Care (BHC)

Certification Program: Not applicable

International: No

Purpose: To investigate the treatment outcome differences between youth offenders from The Joint Commission accredited residential treatment center (RTC) and youth from a non-accredited center.

Design: Case Control Study

Methods: Two adolescent residential treatment sites were used in this study. Clinicians at both adolescent treatment facilities where the Youth Comprehensive Risk Assessment (YCRA) tool is utilized systematically gather information from these assessments and develop treatment goals and interventions related to six areas. At 6-month intervals, residents undergo a re-evaluation, which is designed to make adjustments in treatment planning and decisions about discharge. The risk factor for youth in both groups was noted and compared at admissions and after 5 months of treatment.

Findings: Post t-test analysis showed that youth from the accredited center reported significantly more progress in total risk of 4 of the 6 risk areas including risk to self, social/adaptive functioning, substance abuse risk, and family resources.

Data Source Year: Not Identified

Key Words: accreditation, treatment center, treatment outcomes

Impact: Positive

Primary and Comprehensive Stroke Centers: History, Value and Certification Criteria

Author(s): Gorelick PB.

**Year of Publication:**  2013

**Setting:**  Hospital

**Accreditation Program:**  Not applicable

**Certification Program:**  Disease-specific Care

**International:**  Yes

**Purpose:**  To discuss the history of organized stroke care in the United States, evidence to support the value of primary and comprehensive stroke centers, and the certification criteria and process to become a primary or comprehensive stroke center.

**Design:**  Other
Findings: In 2003 the AHA/ASA and The Joint Commission agreed on a certification process for stroke through a Disease-Specific Certification program that included a voluntary evaluation process driven by the demonstration of a consistent approach to clinical outcome measurement and minimum standards for stroke care built around acute ischemic stroke treatment with rtPA. Primary Stroke Center Certification began in 2004 and by April 2005 about 15 hospitals per month were being reviewed. By 2011, there were over 800 Joint Commission certified primary stroke centers in the US out of some 4000-5,000 total hospital facilities. Some states in the United States have established a state designation for stroke centers through a local health department certification mechanism, and in some regions legislation has been passed to have acute stroke patients bypass non-primary stroke center designated hospitals to allow diagnosis and treatment at primary stroke center-designated acute receiving hospitals.

It is acknowledged that quality initiatives for stroke care have evolved throughout the world and that Joint Commission International developed a process for certifying hospitals outside of the US. Whereas in the US a major focus has been the primary stroke center as the unit for acute stroke treatment, facilities in European hospitals for treating stroke patients have focused on the stroke unit as the primary organizational component for acute stroke care. In 2005, a survey of 886 randomly selected hospitals in 25 countries showed that less than 10% of European hospitals treating acute stroke patients had optimal facilities, and in about 40% the minimal standard was not met.

Stroke center designation has been associated with a number of quality improvements including but not limited to access to timely thrombolytic therapy and utilization of stroke unit care. Primary stroke centers may be established successfully as a metropolitan-wide matrix in large population areas to facilitate diagnosis and treatment of acute stroke patients. Organization of acute stroke in this way may be advantageous especially when there is high annual hospital volume or high physician patient volume in relation to stroke care which heightens preferable outcomes or cost savings. An organized stroke care system such as an inpatient stroke unit has been associated with reduced length of care and case fatality, cost-effectiveness when followed by early supportive discharge, and as a model for stroke care, generalizeability if implemented in non-principal referral hospitals. It should be noted that there is evidence to suggest that primary stroke center designated hospitals had better outcomes than non-certified hospitals before The Joint Commission program for primary stroke center designation was implemented. Possibly, the certified hospitals had organizational
**The Value of Joint Commission Accreditation: Draft Final Report**

**Author(s):** The Lewin Group, INC.

**Journal Information:** N/A

**Year of Publication:** 2012

**Setting:** Hospital, Critical access hospital

**Accreditation Program:** Hospital (HAP), Critical Access Hospital (CAH)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To provide The Joint Commission and the market, including the hospital community, payers, employers and others an empirical estimate quantifying the value proposition of Joint Commission accreditation for the nation's acute care and critical access hospitals.

**Design:** Longitudinal Studies

**Methods:** Panel study design of more than 5,000 U.S. acute care and critical access hospitals over a 6 year period starting in FY2005 and ending in FY2010 to study the impact of Joint Commission accreditation status on public measures of financial health, operating efficiency and quality of care. Financial data were obtained for FY2005 through FY2010 for hospitals in each category using public sources (CMS Medicare Cost Report Data). Quality outcome information was obtained from the CMS Hospital Compare Data for FY2005 through FY2008.
Findings: Used regression analyses to examine the relationship between Joint Commission accreditation and select performance measures. Both descriptive and multiple regression analysis found accreditation was related to improved financial position in terms of total financial margins, operating margins, average net income and occupancy rate. Joint Commission accreditation was also related to improved performance on composite quality measures.

During the 2008 height of the economic downturn, there were no differences in total margins observed between Joint Commission accredited and non-accredited hospitals. However, for every year over the study period (2005 - 2010), Joint Commission accredited hospitals total margins were consistently higher than their non-accredited counterparts. Between 2008 and 2010, average total margins for accredited hospitals increased from 0.75 percent to 4.2 percent compared to 0.74 percent to 1.8 percent for non-accredited hospitals during the same time period.

Joint Commission accreditation was also associated with improved performance across all six composite evidence-based quality measures examined ranging from 14.96 percent (Heart Failure) to 2.45 percent (Surgical Care Improvement).

Data Source Year: 2005-2010
Key Words: accreditation, hospitals
Impact: Positive

Joint Commission Accreditation and Quality Measures in U.S. Nursing Homes

Author(s): Wagner LM, McDonald SM, Castle NG.
Year of Publication: 2012
Setting: Nursing home
Accreditation Program: Nursing Care Center (NCC)
Certification Program: Not applicable
International: No
Purpose: To examine the association between accreditation and select measures of quality in U.S. nursing homes, both cross-sectionally and over time.
Design: Observational Study
Methods: A list of currently accredited nursing homes was identified through a web search of The Joint Commission quality check web site (http://www.qualitycheck.org/) in July 2011. Accreditation status during the period of interest (2002-2010) was compiled and coded separately by year. Identifying information for all facilities was checked against a complete list of U.S. nursing homes and all entries that corresponded to other types of facilities (e.g. Veteran's Affairs medical centers, children's convalescent centers) were removed. A total of 874 Joint Commission-accredited nursing homes were identified. Additional primary data used in this investigation included state Medicaid reimbursement levels. These data were previously collected by the authors.

Findings: Results indicated that better quality nursing homes become Joint Commission accredited and that these accredited nursing homes continue to improve their quality after accreditation. However, The Joint Commission accredited nursing homes continue to improve their quality most during the 1st year of full accreditation; over a longer time period, the impact on quality appears to diminish as fewer significant findings were identified for accredited nursing homes with the greater length of time they are accredited.

Data Source Year: 2002-2010
Link: http://www.ncbi.nlm.nih.gov/pubmed/22527332
Key Words: Long term care, nursing home, quality of care
Impact: Positive

Relationship Between Nursing Home Safety Culture and Joint Commission Accreditation

Author(s): Wagner LM, McDonald SM, Castle NG.
Year of Publication: 2012
Setting: Nursing home
Accreditation Program: Nursing Care Center (NCC)
Certification Program: Not applicable
International: No
Purpose: To explore the impact of Joint Commission accreditation on resident safety culture (RSC) perceptions among leadership in nursing homes in the US.
Design: Cohort Study

Methods: Safety culture ratings were compared between respondents from Joint Commission-accredited nursing homes and those that were non-accredited from the sample, as well as the characteristics of senior managers between accredited and non-accredited nursing homes. The "Quality Check" website by the Joint Commission was used to identify 874 nursing homes that were accredited between 2002 and 2010. The Nursing Home Survey on Resident Safety Culture (NHSRSC) was used to collect information on RSC from administrators and directors of nursing homes. From a random sample of 6,000 nursing homes, only those participating in Medicare and/or Medicaid certification was included.

Findings: 4,008 questionnaires were received from nursing home administrators, giving a response rate of 67%. Findings revealed that leadership from Joint Commission-accredited nursing homes had a more positive resident safety culture (RSC) than from those in non-accredited facilities. NHSRSC survey scores were around 43–67 range for non-accredited nursing homes, compared to scores within the 53–76 range for Joint Commission–accredited nursing homes. This may reflect the Joint Commission’s shift in focus towards health care worker fatigue and patient safety. Respondents in accredited nursing homes also scored more favorably on feedback and communication regarding incidents, which may be related to the fact that the Joint Commission has standards on the reporting of adverse events.

Data Source Year: 2002-2010


Key Words: accreditation, nursing homes, safety culture

Impact: Positive

Impact of Voluntary Accreditation on Deficiency Citations in U.S. Nursing Homes

Author(s): Wagner LM, McDonald SM, Castle NG.


Year of Publication: 2012

Setting: Nursing home

Accreditation Program: Nursing Care Center (NCC)

Certification Program: Not applicable

International: No
Purpose: To examine the association between nursing home accreditation and deficiency citations, also to determine if there are any changes with receiving citations over time.

Design: Longitudinal Studies

Methods: Data for accredited nursing homes originated from the "Quality Check" website from The Joint Commission. The On-line Survey Certification of Automated Records (OSCAR) was used to identify deficiency citations of these respective nursing homes. Four categories of these deficiency citations were analyzed: resident behavior and facility practices, quality of life, quality of care, and the most severe citations.

Findings: Findings showed that nursing homes that were Joint Commission-accredited demonstrated an improvement in quality and maintained this standard during their accreditation. Joint Commission-accredited facilities were also less likely to be for-profit facilities than non-accredited ones. In addition, there was no difference found in overall staffing levels between accredited and non-accredited facilities. Accredited nursing homes continue to improve quality the longer they have been accredited.

Data Source Year: 2002-2010


Key Words: accreditation, long term care, nursing homes, quality improvement

Impact: Positive

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Intravenous Thrombolysis for Stroke Increases Over Time at Primary Stroke Centers

Author(s): Prabhakaran S, McNulty M, O’Neill K, Ouyang B.


Year of Publication: 2012

Setting: Hospital

Accreditation Program: Not applicable

Certification Program: Disease-specific Care

International: No

Purpose: To determine whether utilization of intravenous tissue-type plasminogen activator (tPA) increases with duration of time as a certified primary care stroke center (PSC).

Design: Observational Study
Methods: A retrospective analysis of the Illinois Hospital Association patient level COMPdata was performed identifying those patients with primary discharge diagnosis of acute ischemic stroke based on International Classification of Disease version 9 codes and defined intravenous thrombolysis by International Classification of Diseases version 9 procedure code (99.10). Patients were categorized as cared for at non-primary stroke centers (P-SC), PSC>1 year before, < 1 year after, and > than 1 year after certification. Generalized estimating equations were used to calculate adjusted odd ratios for tissue plasminogen activator (tPA) utilization by PSC category.

Findings: Stroke thrombolysis is strongly impacted by the primary stroke center (PSC) certification process. Adjusting for age, insurance status, admission source, year study, region of Illinois, and hospital bed size, the odds of tissue plasminogen activator (tPA) utilization increased with advancing stage of PSC certification. In addition, PSC increase tPA usage in the earliest stages.

Data Source Year: 2003-2009
Key Words: certification, stroke, tPA
Impact: Positive

Gender Based Differences in Acute Stroke Care in Michigan Hospitals

Author(s): Nagaraja N, Bhattacharya P, Mada F, Salowich-Palm L, Hinton S, Millis S..., Rajamani K.
Year of Publication: 2012
Setting: Hospital
Accreditation Program: Not applicable
Certification Program: Disease-specific Care
International: No
Purpose: To examine whether gender-based differences in acute stroke care occur in both Joint Commission certified and non-certified hospitals.
Design: Cross-Sectional Study
Methods: 602 charts of patients with ischemic stroke were reviewed from five Joint Commission certified and five non-certified hospitals for gender differences in the pre-hospital factors, emergency department evaluation, in-hospital stroke care, discharge outcome and use of secondary prevention measures.

Findings: More women arrived via ambulance (63.1% women vs. 53.9% men, p=0.025) while more men came by self-transportation (42.6% vs. 30%, p=0.0016). There was no difference by gender for evaluation for thrombolytics (89.4% men vs. 85.9% women) or intravenous t-PA administered (3.5% men vs. 2.5% women, p=0.82). More patients in Joint Commission certified centers were evaluated for thrombolysis than in non-certified centers. Delay in arrival was the commonest reason for not getting thrombolysis in both groups. More men than women had mild/resolving symptoms, had more interventional procedures, and better discharge outcome. More men were discharged on anti-thrombotics. Even after adjusting for age, gender differences were significant for arrival by ambulance, self transportation, mild/resolving symptoms, interventional procedures performed and marginally for good discharge outcome. There were significant gender differences in delivery of acute stroke care in Michigan hospitals even after adjustment for age differences. In spite of milder symptoms and less usage of emergency services, men received more aggressive stroke care with a tendency towards better discharge outcome. Going to a Joint Commission certified center was a better predictor of consideration for thrombolitics than gender.

Data Source Year: 2006
Link: https://www.ncbi.nlm.nih.gov/pubmed/22154189
Key Words: stroke certification
Impact: Positive

The Attitude of Health Care Professionals Towards Accreditation: A Systematic Review of the Literature

Author(s): Alkhenizan A, Shaw C.
Year of Publication: 2012
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
**Purpose:** To review the literature on the attitude of health care professionals towards accreditation.

**Design:** Systematic Review

**Methods:** A systematic qualitative review of literature using four databases including Medline, Embase, Healthstar, and CINAHL presented seventeen studies that had evaluated the attitudes of health care professionals towards accreditation.

**Findings:** Owners of hospitals indicated that accreditation had the potential of being used as a marketing tool. Health care professionals viewed accreditation programs as bureaucratic and demanding. There was consistent concern, especially in developing countries, about the cost of accreditation programs and impact on the quality of health care services. In general, the attitude of the health care professionals in the seventeen studies that had evaluated attitudes of health care professionals towards accreditation was supportive. In a few studies, the attitude to accreditation was negative because the participants did not believe that accreditation had a significant impact on the quality of health care services and also because of the significant additional cost involved.

**Data Source Year:** 1980-2011


**Key Words:** accreditation, health professionals, hospitals

**Impact:** Mixed

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**Outcomes of Bariatric Surgery Performed at Accredited vs Non-Accredited Centers**

**Author(s):** Nguyen NT, Nguyen B, Nguyen VQ, Ziogas A, Hohmann S, Stamatos MJ.


**Year of Publication:** 2012

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No
Purpose: To analyze the perioperative outcomes of bariatric surgery performed at accredited vs non-accredited centers. In an effort to improve the quality of care in bariatric surgery, two accreditation programs based on volume were initiated.

Design: Descriptive Study

Methods: Patient-level data obtained from the University HealthSystem Consortium for patients who underwent bariatric surgery for the treatment of morbid obesity between 2007 and 2009 were reviewed. Perioperative outcomes were analyzed according to accreditation status. The primary outcome was in-hospital mortality. Secondary outcomes included length of stay, 30-day readmission, overall complications, and cost. Comparisons of length of stay and cost were performed at the hospital-level data.

Findings: Of the 35,284 bariatric operations performed during the study period, 89.2% of cases were performed at 71 accredited centers; 10.8% of cases were performed at 43 non-accredited centers. The rate of in-hospital mortality was significantly lower in accredited centers (0.06% vs 0.21%). Compared with non-accredited centers, bariatric surgery performed at accredited centers was also associated with shorter length of stay (mean difference 0.3 days; 95% CI 0.16 to 0.44) and lower cost (mean difference, $3,758; 95% CI, $2,965 to $3,952). Post-hoc analyses based on procedural type and severity of illness suggested possible associations between center accreditation and improved in-hospital mortality in patients who underwent gastric bypass and patients with higher severity of illness; similarly, patients requiring prolonged ICU or hospital stay (≥7 days) had significantly lower in-hospital mortality within accredited centers.

Data Source Year: 2007-2009

Link: https://www.ncbi.nlm.nih.gov/pubmed/22727608/

Impact: Positive

The Role of Non-Financial Performance Measures in Predicting Hospital Financial Performance: The Case for For-Profit System Hospitals

Author(s): Vélez-González H, Pradhan R, Weech-Maldonado R.


Year of Publication: 2011

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable
Purpose: To understand the influence of non-financial measures (efficiency, productivity, and quality) on the financial performance of for-profit system hospitals.

Methods: Based on data provided through The Joint Commission and Bazzoli; The sample of 499 for-profit system hospitals in the US from the years 1999 to 2002. Data analyzed include American Hospital Association Annual Survey, Medicare Cost Reports, Joint Commission accreditation survey performance scores, and CMS Hospital Case Mix Index dataset. Dependent variables consist of financial measures (operating and total margins), while independent variables consist of variables measuring efficiency, productivity and quality.

Findings: Results suggest the influence of non-financial performance measures on financial performance; occupancy rate positively influences financial performance while greater labor intensity may have negative implications for financial performance. In addition, this study shows that quality positively influences financial performance thereby offering a potential business case for quality. Despite higher cost, increasing nursing staff in hospitals and using clinical protocols for treatment care will result in substantial cost saving in the long run.

Data Source Year: 1999-2002


Key Words: financial performance, hospital, quality

Impact: Positive

Hospital Performance Trends on National Quality Measures and the Association with Joint Commission Accreditation

Author(s): Schmaltz SP, Williams SC, Chassin MR, Loeb JM, Wachter RM.


Year of Publication: 2011

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No
Purpose: To examine the association between Joint Commission accreditation status and both absolute measures of, and trends in, hospital performance on publicly reported quality measures for common diseases.

Design: Cohort Study

Methods: The relationship between publically reported hospital quality measures and Joint Commission accreditations status was examined using data from hospital discharges from 2004 – 2008 on 16 measures compared to hospital characteristics.

Findings: Accredited hospitals (n=2,917) improved their performance significantly more than non-accredited hospitals (n=762) for 13 out of the 16 individual performance measures from 2004-2008. Furthermore, after adjusting for hospital characteristics (including baseline performance), accredited hospitals were more likely to exceed 90% performance in 2008 than non-accredited hospitals (84% versus 69%).

Data Source Year: 2004-2008


Key Words: accreditation, hospitals, national quality measures, public reporting

Impact: Positive

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30-Day Mortality and Readmission After Hemorrhagic Stroke Among Medicare Beneficiaries in Joint Commission Primary Stroke Center-Certified and Non-Certified Hospitals

Author(s): Lichtman J, Jones S, Leifheit-Limson E, Wang Y, Goldstein L.


Year of Publication: 2011

Setting: Hospital

Accreditation Program: Not applicable

Certification Program: Disease-specific Care

International: No

Purpose: To determine if there was a difference in patient outcomes (30-day mortality and readmission) between Joint Commission Primary Stroke Centers (PSC) and non-PSC hospitals.

Design: Observational Study
Methods: Data from the Medicare Provider Analysis and Review files of all fee-for-service (FFS) Medicare beneficiaries ages 65+ with a primary diagnosis of subarachnoid hemorrhage stroke (SAH) (n=2,305) or intracerebral hemorrhage (ICH) (n=31,272) from 2006 were analyzed.

Findings: A risk-adjusted analysis found that the relative risk of death (within 30 days of admission) was lower for patients discharged from Joint Commission certified Primary Stroke Center hospitals (subarachnoid hemorrhage stroke (SAH) 34% lower, intracerebral hemorrhage (ICH) 14% lower) compared to non-certified hospitals. However, there was no difference in risk-adjusted readmission rates (within 30 days) between Joint Commission-certified Primary Stroke Center hospitals versus non-certified hospitals for either SAH or ICH. It was not clear whether the difference in outcomes was due to better care at the Joint Commission-PSC hospitals or due to selection bias in which better hospitals were more likely to pursue certification in the first place.

Data Source Year: 2006


Key Words: certification, mortality, readmission, stroke

Impact: Mixed

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**Hospital-Level Compliance With Asthma Care Quality Measures at Children's Hospitals and Subsequent Asthma-Related Outcomes**

**Author(s):** Morse RB, Hall M, Fieldston ES, McGwire G, Anspacher M, Sills MR..., Shah SS.


**Year of Publication:** 2011

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To evaluate longitudinal trends in Children's Asthma Care (CAC) measure compliance and to determine if an association exists between compliance and outcomes.

**Design:** Cross-Sectional Study
Methods: This study used administrative data and Children's Asthma Care (CAC) compliance data for 30 US children's hospitals. A total of 37,267 children admitted with asthma between 1/1/08 & 9/30/10, with follow-up through 12/31/10 (45,499 admissions). Hospital-level CAC measure compliance data obtained from National Association of Children's Hospitals and Related Institutions (NACHRI) Readmission and post-discharge emergency department (ED) utilization data were obtained from the Pediatric Health Information System.

Findings: Children's Asthma Care (CAC) measure: CAC-1 (admitted with an asthma exacerbation received relievers) and CDC-2 (systemic corticosteroids during the admission) compliance levels were uniformly high with little variation. CAC-3 measured whether they were discharged with a complete home management plan of care (HMPC) (CAC-3). Aggregate CAC-3 compliance was initially modest but improved during the study period, with substantial variation in compliance and improvement among the hospitals. There was no significant association between CAC-3 compliance, overall or independently, for any of the sub-components and either of the outcome measures at any of the 3 time intervals. Authors concluded CAC-3 measure may not meet the criteria outlined by the Joint Commission for accountability measures and the Joint Commission should reconsider whether the CAC-3 component of the measure set is appropriately classified as an "accountability measure" suitable for public reporting, accreditation, or pay for performance. Comment: this study does not directly address the impact of accreditation but relates to unique Joint Commission measurement requirements for a specialty hospital population.

Data Source Year: 2008-2010
Key Words: asthma care, compliance, hospitals, quality measures
Impact: Neutral

Association Between Stroke Center Hospitalization for Acute Ischemic Stroke and Mortality

Author(s): Xian Y, Holloway R, Chan P, Noyes K, Shah M, Ting H..., Friedman B.
Year of Publication: 2011
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<td>Disease-specific Care</td>
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<td>Purpose:</td>
<td>To examine the association between admission to stroke centers for acute ischemic stroke and mortality.</td>
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<tr>
<td>Design:</td>
<td>Observational Study</td>
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<tr>
<td>Methods:</td>
<td>Observational study using patient-level (n=30,947) data from the New York Statewide Planning and Research Cooperative System (SPARCS) to study the correlation between mortality rates due to acute ischemic stroke in treatment at Designated Stroke Centers (DSCs) vs. non-DSCs.</td>
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<tr>
<td>Findings:</td>
<td>By calculating standardized difference in baseline characteristics, and using an instrumental variable analysis, results determined that DSC was associated with a lower 30-day all-cause mortality when compared to non-DSC (10.1% vs. 12.5%) and greater use of thrombolytic therapy (4.8% vs. 1.7%).</td>
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<td>certification, mortality, stroke</td>
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### Outcomes After Ischemic Stroke for Hospitals With and Without Joint Commission-Certified Primary Stroke Centers

**Author(s):** Lichtman JH, Jones SB, Wang Y, Watanabe E, Leifheit-Limson E, Goldstein LB.


**Year of Publication:** 2011

**Setting:** Hospital

**Accreditation Program:** Not applicable

**Certification Program:** Disease-specific Care

**International:** No

**Purpose:** To assess whether 30-day risk-standardized mortality (RSMR) and readmission (RSRR) rates differed between hospitals with and without Joint Commission-certified primary stroke centers (PSCs) in 2006.

**Design:** Observational Study
**Methods:** The study cohort included all fee-for-service Medicare beneficiaries ≥65 years old discharged with a primary diagnosis of ischemic stroke in 2006. Hierarchical linear regression models calculated hospital-level RSMRs and RSRRs, adjusting for patient demographics, comorbid conditions, and hospital referral region.

**Findings:** Although the absolute differences were small, a higher proportion of hospitals with a Joint Commission-certified primary stroke centers (PSC) had 30-day risk standardized mortality rate (RSMRs) that were lower than the national average as compared with hospitals without a Joint Commission-certified PSC, but 30-day risk standardized readmission rate (RSRRs) were similar regardless of Joint Commission-certified PSC status. There was heterogeneity in the distribution of risk-standardized outcomes for hospitals, with considerable overlap between these groups. The data suggest that Joint Commission PSC certification identifies a large number of high-performing hospitals for mortality outcomes, but does not necessarily guarantee better performance than may be found in hospitals without a Joint Commission-certified PSC. The lack of certification does not necessarily indicate poorer hospital performance.

**Data Source Year:** 2006


**Key Words:** certification, stroke

**Impact:** Neutral

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**An Overview of Patient Safety and Accreditation: A Literature Review Study**

**Author(s):** Al-Awa B, De Wever A, Melot C, Devreux I.


**Year of Publication:** 2011

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** Yes

**Purpose:** To identify valuable information regarding the impact and limitations of the accreditation process found by other researchers as well as the experience of King Abdulaziz University Hospital in Saudi Arabia.

**Design:** Observational Study, Systematic Review
Methods: Literature review and survey data were included in the analysis to understand the link between accreditation and patient safety.

Findings: The 28 out of 81 (34.57%) patient safety indicators significantly improved during the accreditation process at King Abdulaziz University Hospital. Survey results show that the overall average of relative improvement percent is 34.43%. Both results are similar to other findings. The accreditation process as experienced by King Abdulaziz University Hospital has significantly improved 1/3 of patient safety indicators and perception of nursing staffs is correlated with statistical findings. Those findings are supported by international literature. Overall, it is recommended that accreditation in both emerging and industrialized countries be provided especially if there is a strong commitment from the leadership and that process is voluntary rather than obligatory. Authors conclude that more in-depth studies regarding accreditation should be made to establish its conclusive results.

Data Source Year: Not Identified

Key Words: accreditation, hospitals, patient safety

Impact: Positive

Increased Adolescent Opioid Use and Complications Reported to a Poison Control Center Following the 2000 Joint Commission Pain Initiative

Author(s): Tormoehlen LM, Mowry JB, Bodle JD, Rusyniak DE.


Year of Publication: 2011

Setting: Hospital

Accreditation Program: Behavioral Health Care (BHC)

Certification Program: Not applicable

International: No

Purpose: To compare the number of adolescent opioid cases and their outcome severity before and after the 2000 Joint Commission pain initiative.

Design: Uncontrolled Before-After Study
**Methods:** Retrospective case series of opioid exposures involving persons 12-18 years of age reported to a US poison center from 1994 to 2007. The main outcome measure was the number of adolescent opioid cases reported for 1994-2000 compared to 2001-2007. Secondary outcomes included outcome severity, number of cases involving specific opioids, and correlation between the number of cases and the amount of opioids distributed to the state.

**Findings:** There were 1634 adolescent opioid-related cases with 187 cases developing medical complications. Compared with 1994-2000, the rate ratio of cases involving adolescents and opioid analgesics for the years 2001-2007 was 1.69 (95% CI: 1.53, 1.86), and these cases were 2.84 (95% CI: 2.06, 3.91) times more likely to have had medical complications. Medical complications involving methadone (p =0.001) increased after the Joint Commission initiative, while complications related to codeine (p =0.001) and propoxyphene (p =0.030) decreased. There were 15 deaths in 2001-2007 and none in 1994-2000 (p =0.012). Lastly, there was a correlation between the rate of adolescent opioid cases and the amount of opioids distributed to the state (r(2) =0.90; p < 0.001). In the seven years following the Joint Commission pain standards, there was an increase in the number and severity of adolescent opioid-related poison center cases. The increase correlates with statewide availability of opioids. These data may prove useful in drug education and prevention programs targeting adolescents.

**Data Source Year:** 1994-2007


**Key Words:** adolescent opioid use, pain initiative

**Impact:** Negative

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**Outcome of Six Years of Protocol Use for Preventing Wrong Site Office Surgery**

**Author(s):** Starling III J, Coldiron BM.


**Year of Publication:** 2011

**Setting:** Hospital

**Accreditation Program:** Ambulatory Health Care (AMB)

**Certification Program:** Not applicable

**International:** No
Purpose: To determine the incidence of wrong site surgery after implementation of a preoperative protocol in patients presenting for treatment of skin cancer at a high-volume, Joint Commission accredited, tertiary referral center for dermatologic surgery.

Design: Descriptive Study

Methods: A retrospective chart review was performed of 7,983 cases performed on patients presenting for treatment of skin cancer in the office setting.

Findings: There were no cases of wrong site surgery. There were, however, 18 cases of failure to identify the original biopsy site (cancer site). The integration of a correct surgery site protocol into a daily patient care model is a useful step in preventing occurrences of wrong site dermatologic surgery.

Data Source Year: Not Identified


Key Words: accreditation, adverse event reporting, hospitals, wrong site surgery

Impact: Positive

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The Perceived Impact of Public Reporting Hospital Performance Data: Interviews with Hospital Staff

Author(s): Hafner JM, Williams SC, Koss RG, Tschurtz BA, Schmaltz SP, Loeb JM.


Year of Publication: 2011

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To assess perceptions about the value and impact of publicly reporting hospital performance measure data.

Design: Descriptive Study

Methods: Structured focus-group interviews were conducted to gather hospital staff perceptions of the perceived impact of publicly reporting performance measure data.
Findings: Interviews revealed six common themes. Publicly reporting data: (i) led to increased involvement of leadership in performance improvement; (ii) created a sense of accountability to both internal and external customers; (iii) contributed to a heightened awareness of performance measure data throughout the hospital; (iv) influenced or re-focused organizational priorities; (v) raised concerns about data quality and (vi) led to questions about consumer understanding of performance reports. Few differences were noted in responses based on hospitals' performance on the measures. Public reporting of performance measure data appears to motivate and energize organizations to improve or maintain high levels of performance. Despite commonly cited concerns over the limitations, validity and interpretability of publicly reported data, the heightened awareness of the data intensified the focus on performance improvement activities. This study reveals that as the healthcare industry has moved towards greater transparency and accountability, healthcare professionals have responded by re-prioritizing hospital quality improvement efforts to address newly exposed gaps in care.

Data Source Year: Not Identified
Link: https://www.ncbi.nlm.nih.gov/pubmed/21840943
Key Words: hospitals, performance improvement, performance measurement, public reporting, quality improvement, quality measurement
Impact: Positive

Use of Intranet and Other Interventions to Increase Influenza Vaccination Among Health Care Workers

Author(s): Ferris CG.
Year of Publication: 2011
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To evaluate the effectiveness of an Intranet intervention in increasing the proportion of health care workers (HCWs) who received influenza vaccination and to assess other interventions employed by hospitals, health systems, and nursing homes to determine which policies have been the most effective in boosting vaccination rates among American health care workers.

Design: Cross-Sectional Study

Methods: The Intranet-based intervention designed to encourage influenza vaccination among health care workers was conducted at St. Luke's Episcopal Hospital during the 2008-09 flu season. A Microsoft Structured Query Language (SQL) database linked to a human resource database was used to calculate how many employees participated in the online survey.

Findings: There was a statistically significant difference in the percentage of employees who received the flu vaccine – 48.5% in the 2008-09 season when the intranet-based intervention was implemented as compared to 36.3% in the previous year (P < .001).

Data Source Year: 2008-2009

Link: http://digitalcommons.library.tmc.edu/dissertations/AAI3464851/

Key Words: healthcare worker vaccinations, hospitals, influenza vaccination

Impact: Positive

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Quality for Home Palliative Care: An Italian Metropolitan Multicentre JCI-Certified Model

Author(s): Rizzi F, Pizzuto M, Lodetti L, Corli O, Da Col D, Damiani ME..., Bonaldi A.


Year of Publication: 2011

Accreditation Program: Not applicable

Certification Program: Disease-specific Care

International: Yes

Purpose: To describe the key results of a certification process based on the Joint Commission International criteria for the home hospitalization model implemented by the palliative care units of seven Milan hospitals for terminally ill patients with cancer.

Design: Descriptive Study
Methods: In 2006, the inter-hospital working team implemented a certification project based on the Joint Commission International Disease or Condition-Specific Care (DSCS) program. Thirty standards subdivided into five functional areas with 150 measurable elements were the starting-point for periodic improvement plans within and across participating hospitals. Program compliance was analyzed in terms of annual performance improvement and consistency across the seven Palliative Care Units (PCUs) involved in achieving set goals. The Joint Commission International standards were applied on 3,316 terminally ill patients with cancer treated at home from 2005 to 2009.

Findings: As a result of the work carried out, the Joint Commission International survey conducted three years after project implementation demonstrated full compliance with the established standards, leading to the Joint Commission International certification award (for the first time in this clinical setting internationally).

The work carried out with a view to certification confirmed the possibility that facilities spread across different hospitals can actually share common processes and standardize the activities for the care of end-of-life patients with cancer at home as if they were one single service provider.

Data Source Year: 2006
Key Words: cancer, certification, home care, palliative care units
Impact: Positive

**Impact of Accreditation of the Quality of Healthcare Services: a Systematic Review of the Literature**

Author(s): Alkhenzian A, Shaw C.
Year of Publication: 2011
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: Yes
Purpose: The aim of this study was to evaluate the impact of accreditation programs on the quality of healthcare services.
**Design:** Systematic Review

**Methods:** A systematic review of the literature was performed to evaluate the impact of accreditation programs on the quality of health-care services. Several databases were systematically searched, including Medline, Embase, Healthstar, and CINAHL.
Findings: Twenty-six studies evaluating the impact of accreditation were identified. The majority of the studies showed general accreditation for acute myocardial infarction (AMI), trauma, ambulatory surgical care, infection control and pain management; and sub-specialty accreditation programs to significantly improve the process of care provided by healthcare services by improving the structure and organization of healthcare facilities. Several studies showed that general accreditation programs significantly improve clinical outcomes and the quality of care of these clinical conditions and showed a significant positive impact of sub-specialty accreditation programs in improving clinical outcomes in different sub-specialties, including sleep medicine, chest pain management and trauma management. In an analysis of data from 742 hospitals using 7 performance measures against Joint Commission accreditation scores, Joint Commission measures were found to be not correlated with outcome measures. In another large analysis of Joint Commission accreditation scores and the Agency for Healthcare Research (AHRQ), Inpatient Quality Indicators (IQI) and Patient Safety Indicators (PSI) (n=2116 institutions), worse performance on the PSI factor was associated with worse performance on Joint Commission scores (P=.02). In a large data analysis of 216 state psychiatric hospitals, there was a weak relationship between accreditation and indicators of quality of care. In a large analysis of data from Centers for Medicare and Medicaid Services (CMS) in US (n=134 579 patients from 4221 hospitals), patients treated at accredited hospitals were more likely to receive higher quality of care for the management of acute myocardial infarction (AMI) than those treated at non-accredited hospitals. In this study, the mortality rate was lower post AMI in accredited hospitals than in non-accredited hospitals. In a cross-sectional survey conducted in the US in 1988 (n=5172), 1990 (n=5140), 1995 (n=5116), 2000 (n=5150) and 2005 (n=5146), methadone maintenance facilities accredited by The Joint Commission were more likely to adhere to the recommended dosage guideline of methadone, compared to non-accredited hospitals. In a large cross-sectional survey of outpatient substance abuse treatment programs conducted in the US (n=1137), Joint Commission accreditation was positively associated with two elements of treatment comprehensiveness: the percentages of clients receiving physical examinations and mental health care. In an American prospective study (n=36 institutions), medication error rates were similar between accredited and non-accredited hospitals. In this study, five non-accredited hospitals achieved accreditation during the study. In a retrospective chart review (n=1082), Joint Commission pain initiatives on opioids use significantly improved perioperative pain management without a visible increase in adverse effects.
Advantages and Disadvantages of Health Care Accreditation Models

Author(s): Tabrizi JS, Gharibi F, Wilson AJ.


Year of Publication: 2011

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: Yes

Purpose: To define the general advantages and disadvantages of accreditation programs to assist in choosing the most appropriate approach.

Design: Systematic Review

Methods: Systematic search of Scientific Information Database, Ovid Medline & PubMed databases was conducted by the keywords of accreditation, hospital, medical practice, clinic, accreditation models, health care and Persian meanings. From 2379 initial articles, 83 articles met the full inclusion criteria. From initial analysis, 23 attributes were identified which appeared to define advantages and disadvantages of different accreditation approaches and the available systems were compared on these.
Findings: Six systems were identified in the international literature including the Joint Commission from USA, the Canadian program The Canadian Council on Health Services Accreditation (CCHSA), and the accreditation programs of UK, Australia, New Zealand and France. The main distinguishing attributes among them were: quality improvement, patient and staff safety, improving health services integration, public's confidence, effectiveness and efficiency of health services, innovation, influence global standards, information management, breadth of activity, history, effective relationship with stakeholders, agreement with AGIL attributes and independence from government. Based on 23 attributes of comprehensive accreditation systems, the study defined from a systematic review, the Joint Commission accreditation program of USA and then CCHSA of Canada offered the most comprehensive systems with the least disadvantages. Other accreditation programs such as those in Australia, France, New Zealand and UK were fairly comparable according to these criteria. However the decision for any country or health system should be based on an assessment weighing up their specific objectives and needs.

Data Source Year: 2011
Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963612/
Key Words: accreditation, healthcare, hospital, quality
Impact: Positive

Hospital Certification for Optimizing Cardiovascular Disease and Stroke Quality of Care and Outcomes

Author(s): Fonarow GC, Gregory T, Driskill M, Stewart MD, Beam C, Butler J..., Sacco RL.
Year of Publication: 2010
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Disease-specific Care
International: No
Purpose: To present an overview on hospital accreditation, recognition, and certification programs and the potential for such programs to facilitate improved quality of care and outcomes for patients with cardiovascular disease and stroke.
Design: Not a Study
Methods: This AHA advisory reviewed current accreditation and certification programs related to cardiovascular disease and stroke and discusses potential opportunities to develop and enhance hospital certification programs for cardiovascular disease and stroke.

Findings: This AHA presidential advisory states that “current evidence suggests mixed results for correlation of certification programs to hospital performance, including quality of care and outcomes”. The authors recommend a need for: “standardized, objective, unbiased assessments of hospital structural process, and outcome performance, while allowing flexibility as technology and methodology advances.”

Data Source Year: Not Identified


Key Words: cardiovascular disease, hospital accreditation, stroke certification

Impact: Positive

How Healthcare Organizations Use the Internet to Market Quality Achievements

Author(s): Revere L, Robinson L.
Year of Publication: 2010
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No

Purpose: To investigate how hospitals use the Internet as a tool to market the quality of their services.

Design: Descriptive Study

Methods: Data from the American Hospital Association's database, The Joint Commission's website, and hospital's websites were collected from a random sample of 45 hospitals in the U.S., including accreditations status, Joint Commission quality awards, and the number of competitor hospitals within 25 miles. A rating system (0-3) was applied to quality information. Data analysis included frequency distribution.
Findings: The study found that larger hospitals were more likely to earn more Joint Commision awards than smaller hospitals (Pearson correlation analysis, p=.001). Also, hospitals that have more Joint Commission awards are more likely to promote their quality information on their website, than those with fewer awards.

Data Source Year: Not Identified


Key Words: accreditation, hospital, market quality achievements

Impact: Positive

Accountability Measures—Using Measurement to Promote Quality Improvement

Author(s): Chassin MR, Loeb JM, Schmaltz SP, Wachter RM.


Year of Publication: 2010

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To review the origins of contemporary standardized quality measurement, with a focus on hospitals, where such programs have reached their most highly developed state; and, discuss some lessons learned from recent experience and propose a conceptual framework to guide future developments in this fast-moving field.

Design: Not a Study

Methods: The authors of this sounding board article review the origins of contemporary standardized quality measurement, with a focus on hospitals. The article further discusses some lessons learned from recent experience and proposes a conceptual framework to guide future developments in this fast-moving field.
**Findings:** Hospitals made improvements in the clinical processes of care from a performance rate of 81.8% in 2002 to a rate of 95.4% in 2009. By 2009, among all 3,123 reporting hospitals, the 22 accountability measures that were in use at that time assessed about 12.5 million opportunities to provide specific elements of evidence-based care. The percentage of hospitals whose performance across all their accountability measures exceeded 90% increased substantially — from 20.4% in 2002 to 85.9% in 2009.

**Data Source Year:** Not Identified


**Key Words:** accreditation

**Impact:** Positive

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**Effect of Compliance with Quality Performance Measures for Heart Failure on Clinical Outcomes in High-Risk Patients**

**Author(s):** Mansi IA, Shi R, Khan M, Huang J, Carden D.


**Year of Publication:** 2010

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To determine the effects of compliance with The Joint Commission core quality measures for heart failure on patient outcomes at a university hospital caring for high-risk patients.

**Design:** Other

**Methods:** Reviewed data collected for The Joint Commission on patients admitted with heart failure at a university hospital serving an indigent population in Louisiana. Patients were divided based on compliance with The Joint Commission measures into quality-compliant or quality-deficient groups. Of 646 reviewed records, 542, representing 357 patients, were included in the analysis. There were 193 patients in the quality-compliant and 164 in the quality-deficient group. Outcome measures included rate of heart failure admission/year and readmission within 90 days. Multivariate logistic and linear regression analyses were performed to identify independent associations between patient characteristics and heart failure admission.
Findings: Multiple linear regression analysis demonstrated higher rates of heart failure admission/year, and multiple logistic regression revealed higher readmissions at 90 days in the quality-compliant group (parameter estimate, 0.203; p = .02; odds ratio, 2.82; 95% confidence interval, 1.46-5.44, respectively). Compliance with TJC quality measures for heart failure at a university hospital in Louisiana was associated with higher readmission rates for heart failure. Several factors may explain this trend, including patient characteristics and focus on national reporting benchmarks rather than patient-centered health care.

Data Source Year: 2003-2004
Key Words: heart failure, hospitals
Impact: Negative

Intensive Care Unit Core Measures Improve Infectious Complications in Burn Patients

Author(s): Wahl WL, Arbabi S, Zalewski C, Wang SC, Hemmila MR.
Journal Information: J Burn Care Res. 2010 Jan-Feb;31(1):190-5.
Year of Publication: 2010
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To assess the effects of The Joint Commission intensive care unit (ICU) core measures for outcomes in the burn population.
Design: Uncontrolled Before-After Study
Methods: The prospective outcomes measured for this study were hospital length of stay, ventilator-associated pneumonia (VAP), catheter-related bloodstream infection (BSI) rates, and mortality for all burn patients admitted to the ICU. Protocols for the ICU core measures of deep venous thrombosis prophylaxis, stress ulcer prophylaxis, and daily weaning parameters, were in place before the start of the study period in 2005. Head-of-bed up at 30 degrees and glucose control, although variably practiced, were formally instituted in 2005. Enforcement of daily weaning parameters and sedation holidays were also implemented after 2005. The time period before institution of the core measures was 2003 to 2004 (pre-group), which was compared with the study time period of 2006 to 2008 (post-group).

Findings: There were no differences in the mean burn size, percent of inhalation injuries, or age between the two time periods. The VAP rate fell from 42/1000 to 13/1000 ventilator days, \( P = .0001 \). The BSI rate also declined from 12/1000 to 4/1000 line days, \( P = .05 \). Hospital and ICU lengths of stay and ventilator days did not change significantly between the periods. Risk-adjusted mortality for ICU patients improved from 13 to 7% (\( P = 0.01 \), odds ratio = 0.5 [0.29-0.85]). Although not specifically designed for the burn population, implementation of the proposed Joint Commission on the Accreditation of Healthcare Organizations ICU core measures for burn patients was associated with improvements in VAP and BSI rates, as well as a lower mortality.

Data Source Year: 2003-2008
Impact: Positive

Stimulating Healthcare Organizational Improvement Through Public Reporting of Smoking Cessation Advice Rates

Author(s): Das S.
Year of Publication: 2010
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
**Purpose:** To evaluate a novel method of instituting quality improvement among hospitals in the area of smoking cessation through publicizing poor performance.

**Design:** Cluster Randomized Trial

**Methods:** All hospitals in California were randomized to treatment and control regions. Treatment hospitals were then informed of their current Joint Commission smoking cessation advice rates and researcher intention to publicize these rates in local media; offer smoking cessation training at cost to treatment (then control) hospitals. A reassessment of smoking cessation rates to determine if the intervention had an effect was followed by a complete post analysis to determine predictors of greater improvement.

**Findings:** Over one year the control sites had a significantly higher increase in smoking cessation advice rates. The end adherence rate was 94% overall (compared to an initial rate of 88%). This study demonstrates a secular trend of improvement and the impact collection of Joint Commission data has on hospital performance in all areas of care, likely via financial incentives.

**Key Words:** accreditation, public reporting, smoking cessation

**Impact:** Positive

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**The Effects of Hospital Market Competition on Performance and Mortality for Heart Failure**

**Author(s):** Maeda JL.

**Journal Information:** Diss. University of Illinois at Chicago, 2010.

**Year of Publication:** 2010

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To evaluate the relationship between the quarterly performance for left ventricular systolic dysfunction (LVSD) heart failure on the key evidence-based performance measures.

**Design:** Other
Methods: The study design was a retrospective, observational cohort with quarterly repeated measures using primary data from The Joint Commission's ORYX initiative. A total of 3,011 non-Federal, short-stay, Joint Commission-accredited acute care hospitals that participated in the ORYX program were aggregated to 306 hospital referral regions across the United States from Quarter One of 2003 through Quarter 4 of 2006 (n=4,896).

Findings: The average hospital referral region (HRR) adherence to the heart failure performance measures substantially increased over time with larger improvements made for the behavioral measures of smoking cessation counseling and discharge indicators and smaller gains for the clinical measures of angiotensin converting enzyme (ACEI) or inhibitor/angiotensin receptor blocker (ARB) prescribed at discharge and LV function assessment. ACEI or ARB prescribed at discharge is associated with only a marginally lower risk of mortality at one-year post-discharge. A higher HRR performance for left ventricular (LV) function assessment in the 80th percentile of mortality is associated with a 1.8% decrease in 30-day mortality. Market intensity results in only small differences in mortality and inpatient heart failure care based on the current Joint Commission performance measures.

Data Source Year: 2003-2006
Key Words: heart failure, hospitals, performance measurement
Impact: Neutral

Development of a Center of Excellence for Joint Replacement

Author(s): Cress D, Pelton J, Thayer SC, Bukrey C.
Year of Publication: 2010
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To describe the journey one midwestern healthcare system took to establish a consolidated, specialized joint replacement center, which received The Joint Commission's Disease-Specific Care Certification for hip and knee replacement.
Design: Descriptive Study
Methods: A journey method was utilized to describe the certification, which received The Joint Commission's Disease-Specific Care Certification for hip and knee replacement. Specific steps in the development of the center, implementation, evaluation and outcomes, and lessons learned are described.

Findings: After a mid-western health care system received certification: there was an increase in the proportion of patients whose prophylactic antimicrobial therapy was discontinued within 24 hours after the end of hip replacement, greater than 91% of patients received optimal prophylactic deep venous thrombosis medication for knee replacement patients, no change in the number of falls per month. Other recognition include: with outcomes that exceed national benchmarks for deep vein thrombosis prevention, autologous blood utilization, blood transfusions, and patient and staff satisfaction.

Data Source Year: Not Identified

Link: https://www.ncbi.nlm.nih.gov/pubmed/20505483

Key Words: certification, falls, hip and joint replacement

Impact: Positive

The Joint Commission's Disease-Specific Care Certification for Destination Therapy Ventricular Assist Devices

Author(s): Lockard KL, Weimer A, O'Shea G, Driggers E, Conroy L, Teuteberg JJ..., Kormos RL.


Year of Publication: 2010

Setting: Hospital

Accreditation Program: Not applicable

Certification Program: Disease-specific Care

International: No

Purpose: To describe the ventricular assist device disease-specific care certification.

Design: Descriptive Study

Methods: A journey method was utilized to describe the details and process of achieving ventricular assist device disease-specific care certification.
**Findings:** A multidisciplinary team was necessary to achieve the "gold seal" of device specific certification for ventricular assist device (VAD). The process underscores the necessity of a strong and comprehensive infrastructure to support implantation of VADs for permanent therapy.

**Data Source Year:** 2004-2009


**Key Words:** cardiac care facilities, certification, heart-assist devices, ventricular assist device

**Impact:** Positive

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**Author(s):** George MG, Tong X, McGruder H, Yoon P, Rosamond W, Winquist A…, Pandey DK.


**Year of Publication:** 2009

**Setting:** Hospital

**Accreditation Program:** Not applicable

**Certification Program:** Disease-specific Care

**Purpose:** To assess whether acute stroke patients from the Paul Coverdell National Acute Stroke Registry (PCNASR) received treatment according to established guidelines.

**Design:** Prevalence Study

**Methods:** Data from the PCNASR representing 195 hospitals, and 56,969 patients in four states (GA, IL, MA, NC) to study adherence to 10 performance measures (PMs) was analyzed.
Findings: Data on adherence to 10 performance measures from 2001 – 2004 and 2005 – 2007 were compared. Improvements in dysphagia screening (from 45.4% to 56.7%), lipid testing (from 33.6% to 69.9%), smoking cessation counseling (from 21.4% to 78.6%), and antithrombic therapy prescribed at discharge (from 91.5% to 97.6%) were noted. However, there were no improvements in the proportion of patients that arrived at the hospital in time for thrombolytic therapy for ischemic stroke. Three of the 10 stroke PMs were met 90% of the time.

Comment: The study does not compare stroke certification status to outcomes, although the state of MA only included primary stroke service (PSS) hospitals for registry participation – however, state-level data was not reported.

Data Source Year: 2001-2007
Key Words: certification, stroke
Impact: Positive

The Twelfth Annual HealthGrades Hospital Quality in America Study

Author(s): HealthGrades, Inc.
Year of Publication: 2009
Setting: Hospital
Accreditation Program: Not applicable
Certification Program: Disease-specific Care
International: No
Purpose: To identify and quantify the impact of variation among the nation's 5,000 hospitals by measuring risk-adjusted in-hospital mortality across 17 procedures and diagnoses. In addition, to examine the relationship between process and outcome measures specifically in the area of stroke care.
Design: Other
Methods: From 2006 – 2008, data from Medicare discharges (approx 40 million) from all US hospitals was collected. Authors compared relationships between hospitals that are stroke certified vs. non-stroke certified to risk-adjusted mortality rates and likelihood to have favorable five-star ratings.
Findings: Findings demonstrated that hospitals that were stroke certified were nearly twice as likely to attain a HealthGrades 5-star in stroke, compared to non-certified hospitals (30.1% vs. 15.7%). Also, stroke certified hospitals were found to have a lower risk-adjusted mortality rate (8.06% lower) compared to those that were non-certified.

Data Source Year: 2006-2008
Key Words: certification, mortality, stroke
Impact: Positive

Thrombolysis at Primary Stroke Centers in the US

Author(s): Lee LK, Bateman BT, Wang S, Pile-Spellman J, Berman MF.
Year of Publication: 2009
Setting: Hospital
Accreditation Program: Not applicable
Certification Program: Disease-specific Care
International: No
Purpose: To quantify the association between thrombolysis and admission at Primary Stroke Centers (PSCs).
Design: Cohort Study
Methods: Data from the Nationwide Inpatient Sample of patients with a primary diagnosis of stroke, from 2004-2006. Due to lack of historical data, logistical regression was used to determine odds of receiving thrombolysis at a Primary Stroke Centers (PSC) vs. non-PSC. Data was adjusted for patient and hospital characteristics.
Findings: Results demonstrated an increase in thrombolysis administration for patients that were admitted for stroke from 2004 – 2006, 4392 (1.1%), 6089 (1.5%), and 8885 (2.2%). In addition, admission to a hospital that later on became a Primary Stroke Centers (PSC), significantly increased the odds of receiving thrombolysis (adjusted odds ratio 1.43, 95% CI [1.14-1.81]). The authors concluded that “present-day PSCs were more likely to administer thrombolysis to stroke patients in the period from 2004-2006”.

Data Source Year: 2004-2006
Key Words: certification, stroke, thrombolysis
Impact: Positive
Hospitals Rising to the Challenge: The First Five Years of the U.S. Hospital Preparedness Program and Priorities Going Forward

**Author(s):** Toner E, Waldhorn R, Franco C, Courtney B, Rambhia K, Norwood A, ..., O'Toole T.

**Journal Information:** N/A

**Year of Publication:** 2009

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To assess U.S. hospital disaster preparedness efforts.

**Design:** Unknown

**Methods:** A virtual working group of local, state, and regional hospital preparedness experts were convened to assess accomplishments and impact of hospital preparedness programs (HPP) from 2002 through 2007.

**Findings:** The Working Group made several conclusions, pertaining to The 2001 Joint Commission's emergency preparedness standards and their impact. Group participants report that as a result of the Joint Commission standards, they have taken part in joint local, state, and national level exercises with institutions and individuals involved in disaster response, which strengthens coalition formation by building relationships. Additionally, the report stated that The Joint Commission is an, "impetus for increased hospital leadership engagement in preparedness efforts."

**Data Source Year:** 2002-2007

**Key Words:** emergency preparedness, hospital

**Impact:** Positive

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Stroke Patient Outcomes in US Hospitals Before the Start of The Joint Commission Primary Stroke Center Certification Program

**Author(s):** Lichtman JH, Allen NB, Wang Y, Watanabe E, Jones SB, Goldstein LB.


**Year of Publication:** 2009

**Setting:** Hospital

**Author(s):** Thornlow DK, Merwin E.

**Journal Information:** Health Care Manage Rev. 2009 Jul-Sep;34(3):262-72.

**Year of Publication:** 2009

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To examine the relationship between patient safety practices, as measured by accreditation standards, and patient safety outcomes as measured by hospital rates of infections, decubitus ulcers, postoperative respiratory failure, and failure to rescue.
Design: Cross-Sectional Study

Methods: Secondary data was used to examine relationships between patient-safety-related accreditation standards and patient outcomes in U.S. acute care hospitals. Accreditation performance areas were reduced into sub-scores to represent patient safety practices. Outcome rates were calculated using the Agency for Healthcare Research and Quality Patient Safety Indicator software. Multivariate regression was performed to determine the significance of the relationships.

Findings: Three of four multivariate models significantly explained variance in hospital patient safety indicator rates. Accreditation standards reflecting patient safety practices were related to some outcomes but not others. Rates of infections and decubitus ulcers occurred more frequently in hospitals with poorer performance in utilizing patient safety practices, but no differences were noted in rates of postoperative respiratory failure or failure to rescue. Hospital system characteristics were not consistently associated with patient outcomes in either univariate or multivariate regression analyses. For-profit hospitals had higher rates of adverse events than did not-for-profit and nonfederal government hospitals for only two of four indicators: decubitus ulcer and postoperative respiratory failure. Accreditation standards specific to patient safety processes did not appear related to all four outcomes analyzed in this study.

Data Source Year: 2002 & 2005

Link: https://www.ncbi.nlm.nih.gov/pubmed/19625831

Key Words: accreditation, adverse events, hospitals, patient safety

Impact: Positive
**Purpose:** To determine whether quality measures used in the US Centers for Medicare and Medicaid Services Hospital Compare database differed for critical access hospitals based on Joint Commission on Accreditation of Healthcare Organizations accreditation status.

**Design:** Cross-Sectional Study

**Methods:** Used Hospital Compare data to examine critical access hospitals (CAH) outcome measures by accreditation status. Examined all 730 (of ~1300 total CAH) that report to Hospital Compare. Included 16 measures (AMI, pneumonia, surgical site infection).

**Findings:** Of 730 critical access hospitals (CAH) included, 72% were non-accredited, 28% were Joint Commission accredited. Comparison of aggregated hospital quality indicators – 4 of 16 indicators showed significant differences by accreditation status (accredited performed better). Overall, CAH scored below 90% for most measures, suggesting opportunities for improvement regardless of accreditation status.

**Data Source Year:** 2006


**Key Words:** critical access hospitals, disparities, quality indicators, rural hospitals

**Impact:** Positive

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**The Impact of Joint Commission Primary Stroke Center Certification on the Administration Rate of IV Thrombolytic Agents in Eligible Ischemic Stroke Patients**

**Author(s):** Alberts MJ, Range J, Watt A, Cantwell V.

**Year of Publication:** 2009

**Setting:** Hospital

**Accreditation Program:** Not applicable

**Certification Program:** Disease-specific Care

**International:** No
The purpose of the study was to determine if a relationship existed between the length of time a hospital had been certified and the rate at which IV thrombolytic agents were administered to eligible patients during a defined period. The study also evaluated whether IV t-PA administration rates varied between teaching and non-teaching institutions with certified primary stroke centers.

Design: Prevalence Study

Methods: Data were obtained through Joint Commission files and the AHA Healthcare QuickDisc – 2008 edition.

Findings: Data were available for two calendar quarters in 2008. Comparing the IV t-PA administration rate in organizations certified for a single two-year cycle to that of organizations certified for 3 two-year cycles, a higher rate (94% vs 73%, p<.05) of IV t-PA administration to eligible patients existed in the organizations certified longer. For the group of organizations certified for one two-year cycle, the study compared the IV t-PA administration rate in AHA designated major and minor teaching hospitals to that in AHA non-teaching hospitals. There was a significantly higher rate (79% vs. 67%, p<.05) in major and minor teaching hospitals than in non-teaching institutions during the first two years of certification.

Joint Commission Certified Primary Stroke Centers administer IV thrombolytic therapy at higher rates when certified for longer periods of time. This difference may be partly attributable to requirements for annual stroke public education activity in certified primary stroke centers, resulting in a greater volume of eligible patients at the institutions which have been certified longer. Moreover, organizations certified for longer periods may have a more established and refined infrastructure to support the use of IV t-PA. Finally, with more public education about the efficacy of t-PA, centers may experience higher numbers of eligible patients who consent to this important therapy.

Data Source Year: 2008

Key Words: primary stroke centers

Impact: Positive
Purpose: To examine acute pain assessment and pharmacological management in the emergency department that occurred over a period of time after the release of the new pain assessment and management compliance standards of the Joint Commission on Accreditation of Healthcare Organizations for accredited health care organizations.

Design: Descriptive Study

Methods: Medical records were abstracted from hospitalized older adult patients with hip fractures admitted through the emergency department (N = 1454). Records were from 12 acute care hospitals of patients receiving care in the emergency departments from three different periods between 2000 and 2002. Major variables examined were (1) pain assessment practices and (2) pharmacological pain treatment practices derived from an Evidence-based Guideline on Acute Pain Management in Older Adults.

Findings: Trends over time illustrate improvements in pain assessment practices, with almost all patients having some documentation related to pain (99% in 2002), although only 54.4% had pain assessed with a numeric rating scale, 4.2% with a non–numeric rating scale (such as verbal descriptor or faces scale), and 7.4% with nonverbal pain behaviors. Thus, 34% of patients had no objective assessment of pain documented. The mean pain intensity reported remained high (6.8 to 7.2 out of 10) across the three periods. By the end of the study’s final data collection point in 2002, only 60% of patients had any analgesic ordered, with more than half of this group (59%) having an opioid ordered. Of those administered an analgesic, more than 90% received an opioid. Practice improvements were noted over time in a decline in intramuscular opioid administration and overall meperidine administration and an increase in morphine as the opioid of choice in this setting.

Data Source Year: 2000-2002

Link: https://www.ncbi.nlm.nih.gov/pubmed/19591725

Key Words: accreditation, hospitals

Impact: Positive
Capnographic Monitoring of Respiratory Activity Improves Safety of Sedation for Endoscopic Cholangiopancreatography and Ultrasonography

Author(s): Qadeer MA, Vargo JJ, Dumot JA, Lopez R, Trolli PA, Stevens T..., Zuccaro G.


Year of Publication: 2009

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To determine whether intervention, based on a microstream capnography-based ventilation monitoring system that has been shown to function as an early warning system for hypoxemia, would decrease hypoxemia during endoscopy.

Design: Other

Methods: Subjects undergoing elective endoscopic retrograde cholangiopancreatography (ERCP) and endoscopic ultrasonography (EUS) under procedural sedation with a combination of opioid and benzodiazepine were randomly assigned to either a study arm in which the endoscopy team was blinded to capnography or an open arm in which the endoscopy team was prompted of capnographic changes. The primary end point was the occurrence of hypoxemia; secondary end points were the occurrences of severe hypoxemia, apnea, and oxygen supplementation.

Findings: A total of 263 subjects were enrolled and 247 analyzed for efficacy. The numbers of hypoxemic events in the blinded and open arms were 132 and 69, respectively (P < .001). Thirty-five percent of all hypoxemic events occurred with completely normal ventilation. Hypoxemia developed in 69% of patients in the blinded arm compared with 46% in the open arm (P < .001). Severe hypoxemia percentages in the blinded and open arms were 31% and 15% (P = .004), for apnea were 63% and 41% (P < .001), for oxygen supplementation were 67% and 52% (P = .02), and for recurrent hypoxemia after oxygen supplementation were 38% and 18% (P = .01), respectively.

Data Source Year: 2007-2008

Link: https://www.ncbi.nlm.nih.gov/pubmed/19422079

Key Words: accreditation, endoscopy, hospitals, ventilation

Impact: Positive
Surgical Site Signing and Time Out: Issues of Compliance or Complacence

Author(s): Johnston G, Ekert L, Pally E.
Year of Publication: 2009
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To investigate orthopaedic surgeons with regard to their site-signing practices and "time out" procedural compliance for emergent and nonemergent surgical cases in a single health-care region before and after the institution of the "time out" protocol of The Joint Commission.
Design: Uncontrolled Before-After Study
Methods: In the first study, performed in 2006, the presence of the initials of either the surgeon or the surgical resident in the draped surgical field was documented at the time of forty-eight procedures over a three-month period. In a second study, performed a year later, 231 randomly selected procedures were similarly evaluated, as was the performance of the newly adopted "time out" process.
Findings: After implementation of the "time out" protocol by The Joint Commission, no instances of wrong-site orthopedic surgery occurred during both studies. In the first study, after surgical field draping, the surgeon's initials were visible in 67% of emergent cases and 90% of elective cases. In the second study, the surgeon's initials were visible in 61% of emergent cases and 83% of elective cases. The "time out" was performed prior to the skin incision in 70% of the cases, was performed after the incision in 19%, and was not performed at all in 11%.
Data Source Year: 2006-2007
Link: https://www.ncbi.nlm.nih.gov/pubmed/19884430
Key Words: hospitals, surgical marking, timeout, wrong site surgery
Impact: Positive
The Dissociation Between Door-to-Balloon Time Improvement and Improvements in Other Acute Myocardial Infarction Care Processes and Patient Outcomes

**Author(s):** Wang TY, Fonarow GC, Hernandez AF, Liang L, Ellrodt G, Nallamothu BK..., Peterson ED.


**Year of Publication:** 2009

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To examine whether quality efforts targeted to a single process will facilitate concomitant improvement in other quality measures and outcomes.

**Design:** Unknown

**Methods:** Examined 101 hospitals (43 678 patients with AMI) in the Get With the Guidelines program. For each hospital, door-to-balloon (DTB) time improvement from 2005 to 2007 was correlated with changes in composite Centers for Medicare and Medicaid Services/Joint Commission on Accreditation of Healthcare Organizations (CMS) core measure performance and in-hospital mortality.

**Findings:** Between 2005 and 2007, hospital geometric mean DTB time decreased from 101 to 87 minutes (P < .001). Mean overall hospital composite CMS/The Joint Commission core measure performance increased from 93.4% to 96.4% (P < .001), and mortality rates were 5.1% and 4.7% (P = .09) in the early and late periods, respectively. Improvement in hospital DTB time, however, was not significantly correlated with changes in composite quality performance (r = -0.06; P = .55) or with in-hospital mortality (r = 0.06; P = .58). After adjustment for patient mix, hospitals with the most improvement in DTB time did not have significantly greater improvements in either CMS/Joint Commission measure performance or mortality. Within the Get With the Guidelines program, DTB times decreased significantly over time. However, there was minimal correlation between DTB time improvement and changes in other quality measures or mortality. These results emphasize the important need for comprehensive acute myocardial infarction quality-improvement efforts, rather than focusing on single process measures.
The Occupational Safety and Health in Hospitals from the Point of Nurses

Author(s): Bahcecik N, Ozturk H.
Year of Publication: 2009
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: Yes
Purpose: To compare and determine the occupational health problems facing nurses and other staff and evaluate safety precautions utilized by a private hospital accredited by Joint Commission International and a university hospital.
Design: Descriptive Study
Methods: A 24 question survey was administered to 162 nurses working in a university hospital and 150 working in a JCI accredited private hospital (n - 312).
Findings: Of the nurses surveyed the Joint Commission International accredited private hospital had a safer atmosphere to work in. Joint Commission International accredited hospital had 89.3% of employees are vaccinated, 84.7% of heat, lighting, and AC sufficient, 85.3% had written policies regarding personnel safety, and 64% of data about personal safety is collected regularly and problematic areas are improved. Whereas, amongst the non-Joint Commission International accredited hospitals only 55.6% of employees were vaccinated, 18.5% were heat, lighting, and AC sufficient, 11.1% had written policies regarding personnel safety, and 3.7% of data about personal safety is collected regularly and problematic areas are improved.

Data Source Year: 2007
Key Words: hospitals, occupational safety
Impact: Positive
Quality of Care in Accredited and Non-accredited Ambulatory Surgical Centers

Author(s): Menachemi N, Chukmaitov A, Brown LS, Saunders C, Brooks RG.

Journal Information: Jt Comm J Qual Patient Saf. 2008 Sep;34(9);546-51.

Year of Publication: 2008

Setting: Ambulatory surgery center

Accreditation Program: Ambulatory Health Care (AMB)

Certification Program: Not applicable

Purpose: To assess whether ambulatory surgical centers (ASCs) accredited by the Accreditation Association for Ambulatory Health Care (AAAHC) and The Joint Commission differed from their non-accredited counterparts with respect to quality outcomes

Design: Cross-Sectional Study

Methods: Patient-level ambulatory surgery and hospital discharge data from Florida for 2004 were merged and analyzed. Multivariate logistic regressions were estimated separately for the five most common ambulatory surgical procedures: colonoscopy, cataract removal, upper gastroendoscopy, arthroscopy, and prostate biopsy. Statistical models examined differences in risk-adjusted 7-day and 30-day unexpected hospitalizations between nationally accredited and nonaccredited ASCs. In addition to risk adjustment, each model controlled for facility volume of procedure and patient demographic characteristics including gender, race, age, and insurance type.

Findings: Patients at Joint Commission accredited facilities were significantly less likely to be hospitalized after colonoscopy. With the exception of hospitalization after this specific procedure, systematic differences did not exist between ASCs that were accredited by AAAHC or The Joint Commission and those that were not accredited.

Data Source Year: 2004


Key Words: ambulatory surgery centers

Impact: Positive
### Quality-Related Activities in Federally Supported Health Centers: Do They Differ by Organizational Characteristics

**Author(s):** Braun BI, Owens LK, Bartman BA, Berkeley L, Wineman N, Daly CA.


**Year of Publication:** 2008

**Setting:** Community health center

**Accreditation Program:** Ambulatory Health Care (AMB)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To assess the impact of organizational characteristics on quality-related activities in health centers.

**Design:** Cross-Sectional Study

**Methods:** Detailed questionnaire about quality of care, patient safety and organizational practices sent to all Bureau of Primary Health Care (BPHC)-supported health centers (n=900+) in summer 2005.

**Findings:** Accreditation status was associated with the number of staff dedicated to quality improvement (QI) activities, risk management and environmental safety; the number of QI projects conducted; the frequency of inspecting emergency equipment; the consistency of mammogram follow-up; and the immediacy of reporting critical lab values to providers. There were a few differences by location or size, such as number of patient grievances filed and total FTEs. In the multivariate analysis, accreditation status had a positive impact on the frequency with which clinical records were audited, specific credentialing and privileging methods were used, certain review processes occurred, and on the percentage of staff trained on specific topics.

**Data Source Year:** 2005


**Key Words:** community health centers

**Impact:** Positive

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### Comparative Study of Hospital Accreditation Programs in Europe

**Author(s):** de Walcque C, Seuntjens B, Vermeyen K., Peeters G, Vinck I.
Purpose: To determine the effectiveness of accreditation, international comparison of existing accreditation programs in the European member states and a feasibility study for the Belgian context.

Methods: A common framework as a connecting thread throughout this project was developed by an international expert panel to analyze and summarize the research results of the international comparison and the Belgian feasibility study.

Findings: Findings were related to inventory and comparative analysis of hospital accreditation programs in Europe: • It cannot be demonstrated that hospital accreditation actually improves the quality of care for patients. • Quality initiatives are driven by increased accountability urgency; there is pressure to be transparent about financial management of public funds and the effects of hospital care. • Where accreditation programs have been implemented, there are key success indicators to be taken into account: Involvement of the sector, the cultural readiness of the organizations, multidisciplinary teams to conduct the external assessments, the importance of ‘self assessments’. • Accreditation has become the common denominator in several countries and regions, yet there is no common European vision. • On the level of standards there is a wide variety in terms of spread and depth. Standards are rarely focused on clinical outcome, but rather on organisational issues. 

Joint Commission was listed as an inspiration to many other accreditation programs internationally, such as Bulgaria, Czech Republic, France, Spain, and Poland.

Data Source Year: Not Identified

Key Words: accreditation, health care

Impact: Positive
Dissociation Between Hospital Performance of the Smoking Cessation Counseling Quality Metric and Cessation Outcomes after Myocardial Infarction

Author(s): Reeves GR, Wang TY, Reid KJ, Alexander KP, Decker C, Ahmad H..., Peterson ED.


Year of Publication: 2008

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To describe the variability in hospital performance of smoking cessation counseling (SCC) and its association with subsequent smoking cessation rates after discharge and to assess the association between documentation of SCC performance and patients' recollection of having received such smoking cessation advice, a measure of successful communication, and an anticipated mediator of successful quitting.

Design: Descriptive Study

Methods: Analyzed 889 consecutive smokers treated for acute myocardial infarction (AMI) at 19 hospitals in PREMIER (Prospective Registry Evaluating Myocardial Infarction: Events and Recovery) between January 1, 2003, and June 28, 2004. Patients were followed up for 1 year after hospitalization. Multivariate regression modeling was performed to determine the association between hospital-level documented SCC rates and tobacco cessation rates after discharge.
Findings: On a hospital level, the median medical record-documented SCC rate was 72.0% (interquartile range, 59.6%-90.1%). At one-year, the median smoking cessation rate was 55.6% (interquartile range, 37.5%-61.9%). Although patients with documented smoking cessation counseling (SCC) were more likely to recall receiving SCC at one-month (86.1% vs 70.8%, P < .001), their rate of quitting at one-year was lower than that of patients without documented SCC (50.1% vs 60.7%, P = .02; relative risk, 0.76; 95% confidence interval, 0.61-0.94). At the hospital level, there was no correlation between SCC documentation and successful quitting at 6 months (r = -0.19, P = .11) or 1 year (r = -0.13, P = .45). Improved hospital performance of the current Center for Medicare and Medicaid Services (CMS)/The Joint Commission SCC quality measures is not associated with higher cessation rates at either the patient or hospital level.

Data Source Year: 2003-2004


Key Words: hospitals, smoking cessation

Impact: Neutral

Dosage Patterns in Methadone Treatment: Results from a National Survey, 1988–2005

Author(s): Pollack HA, D’Aunno T.


Year of Publication: 2008

Setting: Behavioral health outpatient

Accreditation Program: Behavioral Health Care (BHC)

Certification Program: Not applicable

International: No


Design: Interrupted Time Series

Methods: Random-effects multiple regression analysis was used to examine unit characteristics associated with below recommended doses. Data regarding the proportion of patients who received maintenance dosages of <40, 60, and 80 mg/day were collected from unit directors and clinical supervisors.
Findings: Forty-four percent of patients receive doses of at least 80 mg/day—the threshold identified as recommended practice in recent work. Thirty-four percent of patients receive doses below 60 mg/day, while 17% receive doses below 40 mg/day. Units that serve a high proportion of African American or Latino clients were more likely to report low-dose care. Units managed by individuals who strongly favor abstinence models (e.g., Narcotics Anonymous) were more likely to provide low-dose care. Compared to 1988-2000 Joint Commission accreditation was less important in 2005. The authors conclude that perhaps Joint Commission accreditation was less important as a predictor of high methadone doses in 2005 because accreditation become mandated after 2000.


Link: https://www.ncbi.nlm.nih.gov/pubmed/18522665

Key Words: managed care, methadone maintenance, opiate, substance abuse treatment

Impact: Positive

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**Health Sector Accreditation Research: A Systematic Review**

**Author(s):** Greenfield D, Braithwaite J.


**Year of Publication:** 2008

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To identify and analyze research into accreditation and accreditation processes.

**Design:** Systematic Review

**Methods:** A multi-method, systematic review of the accreditation literature was conducted from March to May 2007. The search identified articles researching accreditation. Discussion or commentary pieces were excluded.
Findings: The analysis reveals a complex picture. In two categories consistent findings were recorded: promote change and professional development. Inconsistent findings were identified in five categories: professions’ attitudes to accreditation, organizational impact, financial impact, quality measures and program assessment. The remaining three categories—consumer views or patient satisfaction, public disclosure, and surveyor issues—did not have sufficient studies to draw any conclusion. The search identified a number of national health care accreditation organizations engaged in research activities.

Data Source Year: 1997
Link: https://www.ncbi.nlm.nih.gov/pubmed/18339666
Key Words: accreditation, health care, quality, safety
Impact: Positive

Hospital Progress in Reducing Error: The Impact of External Interventions

Author(s): Hosford SB.
Year of Publication: 2008
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To investigate quality improvement efforts to reduce medical errors.
Design: Cross-Sectional Study
Methods: A survey of 145 hospital administrators from 48 states was performed using the Baldrige 2006 Health Care Criteria for Performance Excellence.
Findings: Hospital administrators reported significant progress in implementing quality improvement processes that have reduced medical errors. The Joint Commission on Accreditation of Healthcare Organizations accreditation was an effective intervention to drive efforts to reduce medical errors, whereas state medical error reporting and public awareness were not effective interventions.

Data Source Year: 2006
Key Words: hospitals, reducing errors
Impact: Positive

Incremental Survival Benefit with Adherence to Standardized Heart Failure Core Measures: A Performance Evaluation Study of 2,958 Patients

**Author(s):** Kfoury AG, French TK, Horne BD, Rasmusson KD, Lappé DL, Rimmasch HL…, Renlund DG.


**Year of Publication:** 2008

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To test the hypothesis that adherence to Joint Commission Heart Failure core measures in patient care improves patient survival, and incremental improvement is based on degree of adherence.

**Design:** Other

**Methods:** Joint Commission Heart Failure (HF) core measures were implemented within a 20-hospital health care system. Eligible patients had a principal discharge diagnosis of HF. Metrics representing compliance with these measures were derived and their relationship with one-year survival was examined using an adjusted Cox proportional hazards regression.

**Findings:** A total of 2,958 patients met study criteria. The average age was 73 years, 50% were male, and 9.9% were smokers. One-year survival benefits were seen in an item-by-item evaluation of HF measures for angiotensin-converting enzyme inhibitor/angiotensin receptor blocker therapy (hazard ratio [HR] = 0.69), left ventricular function assessment (HR = 0.83), and patient education (HR = 0.79). When assessed collectively, improved survival was seen among patients eligible for two (HR = 0.53), three (HR = 0.36), or four HF measures (HR = 0.65). Further, the study found a positive and incremental relationship between the degree of adherence and survival (P = .008). Adherence to Joint Commission Heart Failure (HF) core measures is associated with improved one-year survival after HF hospitalization.

**Data Source Year:** 2003-2005

**Link:** http://www.ncbi.nlm.nih.gov/pubmed/18325454

**Key Words:** certification, heart failure core measure, hospitals
Organizational- and Individual-level Correlates of Posttreatment Substance Use: A Multilevel Analysis

Author(s): Ghose T.


Year of Publication: 2008

Setting: Behavioral health outpatient

Accreditation Program: Behavioral Health Care (BHC)

Certification Program: Not applicable

International: No

Purpose: To examine the effects of organizational factors on individual-level treatment outcomes, and to examine the organizational- and individual-level correlates of post-treatment substance use.

Design: Cross-Sectional Study

Methods: In this multistage study Phase 1 includes program level data collected from facility directors in 1996. Directors were mailed a questionnaire. With a follow-up interview later. Phase 2 included a sub-sample of residents and outpatient non-methadone treatment facilities to extract treatment information. In phase 3, the same sub-population of residents were interviewed.

Findings: Factors in the external institutional environment of facilities that significantly influenced risk for use included: managed care regulation increased the risk, whereas Joint Commission accreditation decreased it (p < .01 for both). Accredited residential facilities reduced the risk for post-treatment use by 65% as compared with non-accredited facilities, accreditation reduced the risk for use by 15% in outpatient facilities. On the individual level, longer treatment episodes and treatment completion reduced the risk (p < .01 for both) after controlling for client characteristics. The benefits of length of stay in treatment were modified by elements of the external institutional environment and organizational treatment technology. The effects of prolonged treatment were reduced by higher levels of managed care regulation, organizational monitoring, caseload size (p < .01 for all), and proportion of degreed staff (p < .05). The results highlight the influence of organizational factors on post-treatment use.

Data Source Year: 1996-1999

Link: https://www.ncbi.nlm.nih.gov/pubmed/17600654
Do JCAHO Accredited Hospitals Perform Better on Quality Measures? An Analysis of Process-of-Care Measures and Surgical Indicators

**Author(s):** Weeks W, Schmidek J, Wallace W, Dimick J.

**Journal Information:** N/A

**Year of Publication:** 2007

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To examine the relationship between Joint Commission accreditation status, scores, and both processes of care and surgical outcomes.

**Design:** Cross-Sectional Study

**Methods:** This study used Joint Commission, Hospital Compare and Medicare measure data for process of care and surgical outcomes and tested whether accreditation was associated with higher performance and if higher accreditation scores were associated with higher performance.

**Findings:** Joint Commission scores do not reliably differentiate hospitals on process of care measures and there exist only trivial differences based on accreditation status. However, accreditation is a consistent marker for better surgical outcomes and scores are associated with surgical outcomes for non-cancer resections.

**Data Source Year:** 2000-2003

**Key Words:** hospitals, surgical outcomes

**Impact:** Positive

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Do Licensing and Accreditation Matter in Outpatient Substance Abuse Treatment Programs

**Author(s):** Wells R, Lemak CH, Alexander JA, Nahra TA, Ye Y, Campbell CI.


**Year of Publication:** 2007

**Setting:** Behavioral health hospital
**Accreditation Program:** Behavioral Health Care (BHC)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To provide substance abuse treatment stakeholders with better evidence about how well licensing and accreditation actually correlate with staffing and treatment practices.

**Design:** Cross-Sectional Study

**Methods:** Data were collected from the outpatient drug abuse treatment units surveyed in 1999/2000 and 2005 as part of the National Drug Abuse Treatment System Survey (NDATSS). These telephone surveys were completed by administrative directors and clinical supervisors at each outpatient substance abuse treatment unit.

**Findings:** Regressions using data from national surveys of outpatient substance abuse treatment facilities indicated that no form of licensing or accreditation was associated with better staff-to-client ratios or with one important aspect of comprehensive treatment – the percentage of clients receiving routine medical care. There were several positive associations between licensing/accreditation and other aspects of treatment comprehensiveness. Three categories of licensure/accreditation were also positively associated with use of after-treatment plans. Post hoc analyses revealed that accreditation was associated with units' organizational contexts and referral sources as well as the nature of the competitive environment. Licensing/accreditation may reveal as much about units' institutional environments as about the quality of treatment provided.

**Data Source Year:** 1999, 2000, 2005


**Key Words:** accreditation, outpatient substance abuse programs

**Impact:** Positive

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**Assessing the Integration of Health Center and Community Emergency Preparedness and Response Planning**

**Author(s):** Wineman N, Braun B, Barbera J, Loeb J.

**Journal Information:** Disaster Med Public Health Prep. 2007 Nov;1(2):96-105.

**Year of Publication:** 2007

**Setting:** Community health center

**Accreditation Program:** Ambulatory Health Care (AMB)
Certification Program: Not applicable
International: No

Purpose: To gain a better understanding of existing linkages in a nationally representative sample of health centers, and identify health center demographic and experience factors that were associated with strong linkages.

Design: Cross-Sectional Study

Methods: A questionnaire was sent to the population of Health Resources and Services Administration's Bureau of Primary Health Care supported health centers in 2005. The study assessed the relationship between demographic characteristics and linkage items as well as study-defined indicators of strong linkages.

Findings: Overall, performance of indicators of linkages was low. As compared to centers that were not accredited, accredited centers were more likely to integrate with the community during a response, to have received funds for preparedness activities, to have staff involved in community planning, and staff who had seen the community plan and to have a designated staff person who could be reached by the community emergency medical associates at any time. Accredited centers also had higher aggregate linkage indicator scores than centers that were not accredited.

Data Source Year: 2005

Link: http://www.ncbi.nlm.nih.gov/pubmed/18388636

Key Words: community health centers, community preparedness, disaster response, emergency preparedness

Impact: Positive

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Hospital Patient Safety: Characteristics of Best-Performing Hospitals

Author(s): Longo DR, Hewett JE, Ge B, Schubert S.


Year of Publication: 2007

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To determine what organizational characteristics predict greater implementation of patient safety systems, in terms of both extent of systems and progress over time.
**Design:** Cohort Study

**Methods:** A survey (91 questions) was administered to 107 hospitals at two points in time (18 months apart). Data were consolidated into seven latent variables measuring progress in specific areas. Two factor (states Utah and Missouri, and survey time) quasi-experimental design (repeated measures on time—surveys were conducted twice 18 months apart).

**Findings:** Joint Commission-accredited hospitals showed statistically significant improvement, non-accredited hospitals did not show significant improvement. Accreditation was the key predictor of patient safety system implementation. Management type and urban/rural status were secondary predictors.


**Key Words:** heart failure, hospitals, patient safety

**Impact:** Positive

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**Emergency Response Planning in Hospitals, United States: 2003-2004**

**Author(s):** Niska RW, Burt CW.


**Year of Publication:** 2007

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To determine which hospital characteristics are associated with preparedness for terrorism and natural disaster in the areas of emergency response planning and availability of equipment and specialized care units.

**Design:** Cross-Sectional Study

**Methods:** Information from the Bioterrorism and Mass Casualty Preparedness Supplements to the 2003 and 2004 National Hospital Ambulatory Medical Care Surveys was used to provide national estimates of variations in hospital emergency response plans and resources by residency and medical school affiliation, hospital size, ownership, metropolitan statistical area status, and Joint Commission accreditation. Of 874 sampled hospitals with emergency or outpatient departments, 739 responded for an 84.6 percent response rate. Estimates are presented with 95 percent confidence intervals.
Findings: About 92 percent of hospitals had revised their emergency response plans since September 11, 2001, but only about 63 percent had addressed natural disasters and biological, chemical, radiological, and explosive terrorism in those plans. Only about nine percent of hospitals had provided for all 10 of the response plan components studied. Hospitals had a mean of about 14 personal protective suits, 21 critical care beds, 12 mechanical ventilators, seven negative pressure isolation rooms, and two decontamination showers each. Hospital bed capacity was the factor most consistently associated with emergency response planning and availability of resources.

Data Source Year: 2003-2004


Key Words: bioterrorism, emergency preparedness, emergency response, hospitals

Impact: Positive

Identification of 90% of Patients Ultimately Diagnosed With Community-Acquired Pneumonia Within Four Hours of Emergency Department Arrival May Not Be Feasible

Author(s): Fee C, Weber EJ.


Year of Publication: 2007

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To determine whether it is feasible to identify 90% of emergency department (ED) patients who subsequently receive a hospital discharge diagnosis of community-acquired pneumonia using the current Joint Commission/ Centers for Medicare and Medicaid Services (CMS) community-acquired pneumonia core measures criteria.

Design: Other
Methods: This was a retrospective case series in a university tertiary care emergency department (ED). From a random sample of patients discharged from the hospital between January and December 2005 who were eligible for Joint Commission/CMS community-acquired pneumonia antibiotic timing measure PN-5b, the study identified the proportion of patients admitted through the ED who received antibiotics more than four hours after hospital arrival (outliers). Medical records of outliers were reviewed to determine whether they received a final ED community-acquired pneumonia diagnosis. Presenting characteristics of outliers with and without final ED community-acquired pneumonia diagnoses were compared to determine feature(s) that might explain failure to diagnose community-acquired pneumonia in the ED.

Findings: Of 152 eligible emergency department (ED) community-acquired pneumonia patients, 53 (34.9%) were identified as outliers. Thirty-one of the outliers did not have a final ED community-acquired pneumonia diagnosis. At least 20.4% (95% confidence interval [CI] 14.3% to 27.7%) of all ED community-acquired pneumonia patients did not have an ED community-acquired pneumonia diagnosis. Of outliers without an ED community-acquired pneumonia diagnosis, 43.3% had an abnormal chest radiograph compared with 95% with an ED community-acquired pneumonia diagnosis (odds ratio 24.8; 95% CI 3.63).

Data Source Year: 2005
Link: https://www.ncbi.nlm.nih.gov/pubmed/17210202
Key Words: accreditation, emergency departments, hospitals, pneumonia
Impact: Neutral

Organizational and Unit Factors Contributing to Reduction in the Use of Seclusion and Restraint Procedures on an Acute Psychiatric Inpatient Unit

Author(s): Pollard R, Yanasak EV, Rogers SA, Tapp A.
Year of Publication: 2007
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
**Purpose:** To examine unit characteristics and the use of seclusion or restraint (S/R) procedures in a VA facility with a secured, acute mental health unit before and after the promulgation of the Joint Commission 2000 standards for utilization of S/R for behavioral health reasons.

**Design:** Uncontrolled Before-After Study

**Methods:** Variables examined include patient acuity, patient census, number of admits, number of discharges, length of stay, number of nursing staff on duty, critical incidents and S/R hours per month.

**Findings:** Results indicated S/R use began showing a notable decrease corresponding to the time that senior unit management began discussions of the new Joint Commission standards. These reductions maintained statistical significance even after controlling for changes in unit environmental variables.

**Data Source Year:** 1998-2002


**Key Words:** hospitals, inpatient psychiatric unit, restraint, seclusion

**Impact:** Positive

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**Outcomes of Primary Percutaneous Coronary Intervention at a Joint Commission International Accredited Hospital in a Developing Country - Can Good Results, Possibly Similar to the West, be Achieved**

**Author(s):** Jafary FH, Ahmed H, Kiani J.


**Year of Publication:** 2007

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** Yes

**Purpose:** To describe the procedural and clinical outcomes of patients undergoing percutaneous coronary intervention (PCI) for ST-elevation myocardial infarction (STEMI) at a Joint Commission International-certified hospital in Pakistan and make a comparison with outcomes from the West.

**Design:** Cohort Study
Methods: This retrospective cohort study at a tertiary care university hospital in Karachi, Pakistan included the review of records of a total of 277 consecutive patients undergoing primary percutaneous coronary intervention (PCI) between January 2001 and December 2005. Exclusion criteria included preceding fibrinolytic therapy and STEMI due to stent thrombosis. Cox proportional hazards models were constructed. The primary outcome was mortality.

Findings: While this study cannot be generalizable, the data suggests that Western quality of care for a critical illness like STEMI may be duplicated in a third-world country in a Joint Commission accredited-certified hospital with skilled operators on staff. Procedural success was 97.1%. In-hospital mortality was 8.3% (43.9% in cardiogenic shock, 2.1% in non-shock patients), comparing very favorably with the published literature from developed countries. Multivariate predictors of death included (hazards ratio, 95% confidence interval) age (1.42 [1.14-1.76]), mechanical ventilation (8.35 [2.82-24.73]), cardiogenic shock (2.80 [1.04-7.55]), prior CABG (9.78 [1.15-83.13]) and ejection fraction (0.96 [0.92-0.99]).

Data Source Year: 2001-2005
Link: https://www.ncbi.nlm.nih.gov/pubmed/17906343
Key Words: clinical outcomes, hospitals, international accreditation
Impact: Positive

Pain Assessments and the Provision of Analgesia: The Effects of a Templated Chart

Author(s): Baumann BM, Holmes JH, Chansky ME, Levey H, Kulkarni M, Boudreaux ED.
Year of Publication: 2007
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To investigate the effects of introducing a templated chart on the documentation of pain assessments and the provision of analgesia to emergency department patients.
Design: Uncontrolled Before-After Study
Methods: A total of 2,379 charts were reviewed for inclusion based on the presence of a chief complaint related to trauma or nontraumatic pain, with 1,242 charts included in the analysis.

Findings: Baseline demographic characteristics, mechanism of injury, location of injury, and initial pain severity were similar in the two groups featuring trauma or nontraumatic pain. The proportion of patients with documentation of pain assessment increased from 41% to 57% (p < 0.001). In particular, traumatic mechanisms and chest, abdominal, and extremity pain yielded the largest improvements in documentation after introduction of the templated charts. Documentation of pain descriptors also improved for time of onset, duration, timing, and context (p < 0.01). Pain control in the templated chart group, however, remained unchanged and the provision of analgesia in the ED was not altered, with the exception of nonsteroidal medications, which decreased from 46% to 36% (p < 0.01).

Data Source Year: 2004

Link: https://www.ncbi.nlm.nih.gov/pubmed/17099187

Key Words: accreditation, emergency medicine, hospitals, pain assessment

Impact: Mixed
Findings: After implementation of the Universal Protocol for all pathologist performed fine needle aspirations, in the years 2005 and 2006, no errors were detected based on wrong person or wrong site after a total of 1,779 and 2,079 fine needle aspirations, respectively, were performed by pathologists.

Data Source Year: 2005-2006

Link: https://www.ncbi.nlm.nih.gov/pubmed/17883844

Key Words: accreditation, hospitals, invasive procedures

Impact: Positive

Sterility of the Surgical Site Marking Between the Ink and the Epidermis

Author(s): Cullan DB, Wongworawat MD.


Year of Publication: 2007

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To determine if the use of preoperative site marking affects the sterility of the surgical field.

Design: Cohort Study

Methods: 30 consecutive patients scheduled to undergo elective upper extremity surgery by the same surgeon were included. For each patient, surgical marking according to Joint Commission on Accreditation of Healthcare Organizations guidelines were placed on more than half of the planned incision site, and the other half was left unmarked. The patients then underwent routine surgical preparation. The skin was incised, starting from the unmarked side and continuing to the marked aspect. Cultures were obtained by swabbing the skin edges: one from the unmarked side and one from the marked side. After blood agar plating, cultures were incubated for 72 hours and analyzed by a blinded observer.

Findings: All cultures were negative, regardless of swab site (unmarked or marked location). Does not appear to be any increase risk from marking the surgical site per Joint Commission guidelines.

Link: http://www.ncbi.nlm.nih.gov/pubmed/17660080

Key Words: surgical procedures, surgical site marking, wrong site surgery

Impact: Positive
The Impact of External Interventions on Improving the Quality of Patient Safety in Hospitals

Author(s): Hosford SB.
Year of Publication: 2007
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To investigate quality improvement processes implemented by hospital administrators to reduce medical errors.
Design: Cross-Sectional Study
Methods: A quantitative, cross-sectional, single time-frame study to investigate the progress and effectiveness of medical error management systems in US hospitals. A survey instrument was developed based upon the Baldrige National Quality Program 2006 Health Care Criteria for Performance Excellence to collect data from a sample of US hospitals. A survey was distributed to 145 hospital administrators from 48 states was performed using the Baldrige 2006 Health Care Criteria for Performance Excellence criteria.
Findings: Hospital administrators reported significant progress in implementing effective quality improvement processes to reduce medical errors. Joint Commission accreditation was found to be an effective intervention to drive efforts to reduce medical errors, while state medical error reporting and public awareness were not effective interventions.
Data Source Year: Not Identified
Key Words: hospitals, medical errors, patient safety
Impact: Positive

The National Trend in Quality of Emergency Department Pain Management for Long Bone Fractures

Author(s): Ritsema TS, Kelen GD, Pronovost PJ, Pham JC.
Year of Publication: 2007
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No

Purpose: To compare the quality of emergency department (ED) pain management before and after implementation of the Joint Commission on the Accreditation of Healthcare Organizations’ standards in 2001.

Design: Cohort Study

Methods: A retrospective cohort study using the National Hospital Ambulatory Medical Care Survey from 1998-2003. Patients who presented to the ED with a long bone fracture (femur, humerus, tibia, fibula, radius, or ulna) were compared. The authors extracted data on patient, visit, and hospital characteristics. The primary outcomes were the proportion of patients who received assessment of pain severity and who received analgesic treatment.

Findings: There were 2,064 patients with a qualifying fracture in the study period, 834 from 1998-2000 and 1,230 from 2001-2003. Compared with the early period, a higher proportion of patients in the late period had their pain assessed (74% vs. 57%), received opiates (56% vs. 50%), and received any analgesic (76% vs. 56%). Patients in the late period had higher odds of receiving any analgesia (adjusted odds ratio [OR], 1.43) and opioid analgesia (adjusted OR, 1.27) compared with the early period. Patients in the middle age group (adjusted OR, 2.28) or those seen by physician assistants (adjusted OR, 2.05) were more likely, whereas those with Medicaid (adjusted OR, 0.58) and those in the Northeast were less likely, to receive opiates.

Data Source Year: 1998-2003


Key Words: emergency departments, hip fractures, pain assessment, pain treatment

Impact: Positive

Quality Improvement: Stroke Plan-Do-Study-Act for Primary Stroke Center Certification

Author(s): Censullo JL, Mokracek M, Newmark M.
Year of Publication: 2007
Setting: Hospital
Accreditation Program: Not applicable
Certification Program: Disease-specific Care
International: No

Purpose: To describe the processes essential to attain stroke certification that are detailed, complex, and outlined.

Design: Descriptive Study

Methods: The article describes the process of an institution to be a primary stroke center certified by The Joint Commission.

Findings: Primary stroke center certification is an opportunity for institutions to validate and highlight their efforts in providing quality stroke care. Primary stroke center certification is also a tool for non-tertiary referral centers to bring their stroke care to a level consistent with industry standards and public expectations. The methods in which individual institutions achieve primary stroke center certification vary according to different institutional resources and different cultural attributes. The Deming's plan-do-study-act (PDSA) model used by, St Luke's Episcopal Hospital, provided a framework for tackling quality issues large and small as they pursued primary stroke center certification from the Joint Commission.

Data Source Year: Not Identified

Link: http://www.ncbi.nlm.nih.gov/pubmed/17563599

Key Words: disease-specific certification, quality improvement, stroke

Impact: Positive

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**Quality of Care for the Treatment of Acute Medical Conditions in US Hospitals**

**Author(s):** Landon BE, Normand ST, Lesser A, O’Malley J, Schmaltz S, Loeb JM, McNeil BJ.


**Year of Publication:** 2006

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No
Purpose: To determine: 1) the quality of care in US hospitals for these three common medical conditions using the expanded set of indicators available through the Joint Commission, and 2) what hospital characteristics are associated with high-quality performance?

Design: Cross-Sectional Study

Methods: Created composite scales for each disease and used factor analysis to identify two additional composites based on underlying domains of quality. Used logistic regression to examine relationship between hospital characteristics and quality.

Findings: After multivariate adjustment, Joint Commission accredited hospitals consistently had better performance on each disease-specific composite measure (acute myocardial infarction, congestive heart failure and pneumonia) than hospitals that were not accredited. Accreditation was one hospital characteristic strongly related to performance. This and other characteristics can be used to influence patient choice.

Data Source Year: 2003-2004


Key Words: acute medical conditions, hospitals

Impact: Positive

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Training for Terrorism-Related Conditions in Hospitals: United States, 2003-04

Author(s): Niska RW, Burt CW.


Year of Publication: 2006

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To determine which hospital characteristics are associated with providing terrorism preparedness training to clinical staff.

Design: Cross-Sectional Study
Methods: Information from a Bioterrorism and Mass Casualty Supplement to the 2003 and 2004 National Hospital Ambulatory Medical Care Surveys was used to provide national estimates of variations in terrorism preparedness training by eight hospital characteristics. Of 874 hospitals in scope, 739 (84.6 percent) responded. Estimates are presented with 95 percent confidence intervals.

Findings: Hospitals with Joint Commission accreditation were more likely to provide terrorism preparedness training to all types of clinical staff (staff physicians, residents, nurse practitioners, physician assistants, and laboratory staff). Teaching hospitals, medical school affiliation, bed capacity, and urban location were also associated with training staff physicians, residents, nurse practitioners, and physician assistants. Hospitals with residency programs were associated with training only staff physicians and residents. There was more parity across hospital characteristics in training nurses and laboratory staff than for physicians, residents, nurse practitioners, and physician assistants. Joint Commission accreditation was the most consistent factor associated with providing training for all nine exposures studied (smallpox, anthrax, chemical and radiological exposures, botulism, plague, tularemia, viral encephalitis, and hemorrhagic fever).

Data Source Year: 2003-2004
Key Words: bioterrorism, education, emergency response, hospitals, terrorism preparedness
Impact: Positive

Best Cardiac Care Found in Wealthiest Areas, GNS Analysis Shows

Author(s): Benincasa R, Brooks J.
Journal Information: N/A
Year of Publication: 2006
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To rate United States hospitals on heart care based on how often they gave standard treatments to heart attack and heart failure patients who were supposed to get them.
Design: Cross-Sectional Study

Methods: Using data from federal Centers for Medicare and Medicaid Services and covering the period of October 2004 through September 2005, this study rated the nation's US hospitals on heart care based on how often they gave standard treatments to heart attack and heart failure patients who were supposed to get them. Treatments included giving heart attack patients aspirin and beta-blocker drugs. Hospitals were awarded from one to five stars for heart attack and heart failure treatments, based on how they ranked in comparison to other hospitals both nationally and within their states. Hospitals with very few heart patients weren't included. Some 3,100 U.S. hospitals, or about three-quarters of those in a federal government database, received heart attack ratings, and 3,600 received heart failure ratings.

Findings: Powerful indicators associated with hospital performance included household income, medical school affiliation, urban location, region, accreditation and ownership type. Nearly half of hospitals without Joint Commission accreditation were bottom-tier performers for heart failure patients; for treating heart attacks, 40% were bottom tier performers.

Data Source Year: 2004-2005

Key Words: cardiac care, hospitals

Impact: Positive

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Can a JCAHO-Certified Primary Stroke Center Improve its Performance

Author(s): Sloan MA, Price M, Cheek W, Norton HJ, Asimos AW, Diedrich A, Putman S.


Year of Publication: 2006

Setting: Hospital

Accreditation Program: Not applicable

Certification Program: Disease-specific Care

International: No

Purpose: To determine if the processes of care for acute ischemic stroke in a Joint Commission certified Primary Stroke Center can improve over time.

Design: Other
Methods: Prospectively collected data on 10 stroke indicators in a Primary Stroke Center for one year before Joint Commission certification and for the intracycle report one year after certification.

Findings: Almost perfect/perfect performance was maintained for Stroke (STK) 2, STK 3, STK 4, and STK 5. There were significant improvements for STK 1, 7, 8, 9, 10. There was no significant improvement for STK 6. Stroke care can be enhanced by Joint Commission certification.

Data Source Year: 2003-2005
Key Words: hospitals certification, stroke centers
Impact: Positive

Effect on Hospital-wide Sedation Practices After Implementation of the 2001 JCAHO Procedural Sedation and Analgesia Guidelines

Author(s): Pitetti R, Davis PJ, Redlinger R, White J, Wiener E, Calhoun KH.
Year of Publication: 2006
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To describe the effect of implementing the Joint Commission on Accreditation of Healthcare Organization's guidelines for procedural sedation and analgesia (PSA) on the frequency of adverse events occurring during sedation.
Design: Descriptive Study
Methods: A procedural sedation and analgesia (PSA) committee and a standardized protocol for PSA were developed during a six-month period. Institutional oversight was initiated to monitor practitioner compliance with the program. Data were abstracted from the sedation record. The change in incidence of adverse events during PSA during the study. The strength of the association was determined by computing the Pearson product moment correlation.
### Findings

A total of 14,386 patients received procedural sedation and analgesia (PSA) between July 1, 2001, and June 30, 2004. During the study, 7.6% of patients had an adverse event, with the most common being hypoxemia (39.7% of all adverse events). A trend toward a decrease in the incidence of adverse events was found during the study (Pearson product moment correlation, -0.68; P<.001). Implementation of the 2001 Joint Commission guidelines for the provision of PSA appeared to lead to a decrease in the incidence of adverse events during the study. Implementation of uniform standards of monitoring and care for the provision of PSA may lead to safer conditions for pediatric patients undergoing PSA.

**Data Source Year:** 2001 - 2004


**Key Words:** hospitals, sedation

**Impact:** Positive

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### Pharmacist Staffing, Technology Use, and Implementation of Medication Safety Practices in Rural Hospitals

**Author(s):** Casey MM, Moscovice IS, Davidson G.


**Year of Publication:** 2006

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To assess the capacity of small rural hospitals to implement medication safety practices, with particular focus on pharmacist staffing and the availability of technology.

**Design:** Cross-Sectional Study

**Methods:** A telephone survey of a national random sample of small rural hospitals was conducted from March to May 2005 (N = 387 hospitals, 94.6% response rate). Survey respondents included pharmacists (89%) and directors of nursing (11%). Multivariate analyses examined the relationships between hospital organizational and financial variables and (1) the amount of pharmacist staffing; (2) use of pharmacy computers for medication safety activities; and (3) implementation of medication safety practices.
Findings: Many small rural hospitals have limited hours of on-site pharmacist coverage. Almost one quarter of hospitals either do not have a pharmacy computer or are not using it for clinical purposes. Half of the hospitals have implemented four key medication safety practices. Level of pharmacist staffing, use of technology, and implementation of medication safety practices are significantly related to hospital financial status and accreditation. Joint Commission accredited hospitals had a greater change of pharmacy computers utilized for clinical purposes and utilization of medication safety practices than non-accredited. Implementation of protocols related to medication use and key medication safety practices are areas where small rural hospitals could improve. The study results support a continuation of Medicare cost-based reimbursement policies to help ensure financial stability and support quality and patient safety activities in small rural hospitals.

Data Source Year: 2005
Link: https://www.ncbi.nlm.nih.gov/pubmed/17010029
Key Words: medication safety, pharmacy, rural hospital, staffing
Impact: Positive

Duration of Nonmethadone Outpatient Treatment: Results From a National Survey

Author(s): Friedmann PD, Alexander JA, Yey Y, Nahra T, Soliman S, Pollack HA.
Year of Publication: 2006
Setting: Ambulatory clinic general
Accreditation Program: Behavioral Health Care (BHC)
Certification Program: Not applicable
International: No
Purpose: To examine organizational trends from 1990 to 2000 and unit characteristics associated with the duration of nonmethadone outpatient addiction treatment.
Design: Other
Methods: Program directors and clinical supervisors from a nationally representative panel of nonmethadone outpatient units in the United States were surveyed in 1990, 1995, and 2000. Treatment duration was measured from clinical supervisors' reports of the average length of stay. Negative binominal regression models controlled for multivariate effects.

Findings: Treatment duration modestly declined between 1990 and 2000 while addiction severity increased. Affiliation with a mental health center, older program age, Joint Commission accreditation were associated with shorter treatment durations.

Data Source Year: 1990-2000
Link: https://www.ncbi.nlm.nih.gov/pubmed/17135180
Key Words: accreditation, nonmethadone outpatient treatment
Impact: Neutral

Effect of Discharge Instructions on Readmission of Hospitalized Patients with Heart Failure: Do All of the Joint Commission on Accreditation of Healthcare Organizations Heart Failure Core Measures Reflect Better Care

Author(s): VanSuch M, Naessens JM, Stroebel RJ, Huddleston JM, Williams AR.
Year of Publication: 2006
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To determine whether documentation of compliance with any or all of the six required discharge instructions is correlated with readmissions to hospital or mortality.
Design: Observational Study
Methods: A retrospective study at a single tertiary care hospital was conducted on randomly sampled patients hospitalized for heart failure from July 2002 to September 2003. Applying the Joint Commission on Accreditation of Healthcare Organizations criteria, 782 of 1121 patients were found eligible to receive discharge instructions. Eligibility was determined by age, principal diagnosis codes and discharge status codes.
**Findings:** In all, 68% of patients received all discharge instructions, whereas 6% received no instructions. Patients who received all instructions were significantly less likely to be readmitted for any cause ($p = 0.003$) and for heart failure ($p = 0.035$) than those who missed at least one type of instruction. Documentation of discharge instructions is correlated with reduced readmission rates. However, there was no association between documentation of discharge instructions and mortality ($p = 0.521$).

**Data Source Year:** 2002-2003  
**Key Words:** accreditation, heart failure core measures, readmission rates  
**Impact:** Mixed

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**The Impact of the Joint Commission for Accreditation of Healthcare Organization’s Pain Initiative on Preoperative Opiate Consumption and Recovery Room Length of Stay**

**Author(s):** Frasco PE, Sprung J, Trentman TL.  
**Year of Publication:** 2005  
**Setting:** Hospital  
**Accreditation Program:** Hospital (HAP)  
**Certification Program:** Not applicable  
**International:** No  
**Purpose:** To assess the effects of the Joint Commission pain initiative at the Mayo Clinic Hospital in Scottsdale, Arizona.  
**Design:** Controlled Before and After Study  
**Methods:** Assessed amount of opioids used in the post-anesthesia care unit (PACU), opioid-induced side-effects, and PACU discharge times in 541 surgical patients before and after the initiative.  
**Findings:** There was an overall increase in the average consumption of opiates in 2002 compared with 2000. The increase in opiate use was not associated with increased length of stay, an increase in the requirement for naloxone or an increase in treatment for post-operative nausea and vomiting, or additional opiate-induced morbidity in the immediate post-operative period.  
**Data Source Year:** 2000 and 2002  
**Key Words:** hospitals, opioids
**Relationship Between Performance Measurement and Accreditation: Implications for Quality of Care and Patient Safety**

**Author(s):** Miller MR, Pronovost P, Donithan M, Zeger S, Zhan C, Morlock L, Meyer GS.


**Year of Publication:** 2005

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To examine the association between the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) accreditation scores and the Agency for Healthcare Research and Quality's Inpatient Quality Indicators and Patient Safety Indicators (IQIs/PSIs).

**Design:** Cross-Sectional Study

**Methods:** Joint Commission accreditation data from 1997-1999 were matched with institutional IQI/PSI performance from 24 states in the Healthcare Cost and Utilization Project.

**Findings:** Most institutions scored high on Joint Commission measures despite AHRQ IQI/PSI performance variation with no significant relationship between them. One factor of each the IQI/PSIs explained the majority of variance on the IQI/PSIs – worse performance on the PSI factor was associated with worse performance on Joint Commission scores. There were no significant relationships between Joint Commission categorical accreditation decisions and IQI/PSI performance – few relationships between Joint Commission scores and IQI/PSI performance. The authors conclude that there is need to continuously reevaluate measurement tools to be sure they are providing the public with reliable, consistent info.

**Data Source Year:** 1997-1999


**Key Words:** accreditation decisions, hospital performance, hospitals, patient safety

**Impact:** Neutral
Joint Commission Accreditation Surveys as a Measure of Process Quality for VA Heart Failure Patients

Author(s): Moffett M, Ashton C, Morgan RO.
Journal Information: N/A
Year of Publication: 2005
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To assess the role of Joint Commission surveys as a measure of process quality.
Design: Cross-Sectional Study
Methods: VA data was combined with The Joint Commission survey data including survey score and 45 performance area scores. Performance area scores were grouped into 3 categories: Patient Focused Function, Organizational Function, and Structures with Functions.
Findings: Variation in full survey score showed no significant associations with outcomes of care. Better Patient Focused Function scores were associated with reduced patient mortality within 30 days of discharge, reduced 90 day readmission rates and fewer patient misadventures. Organizational Function scores were associated with worse patient outcomes, including higher 30 day mortality and more patient misadventures. Better Structures with Functions scores were associated with worse 30 day mortality but fewer patient misadventures.
Data Source Year: 1996-2003
Key Words: Veteran Affairs, accreditation, heart failure, hospitals, quality
Impact: Neutral

Factors that Influence Staffing of Outpatient Substance Abuse Treatment Programs

Author(s): Lemak CH, Alexander JA.
Year of Publication: 2005
Setting: Behavioral health hospital
Accreditation Program: Behavioral Health Care (BHC)
Certification Program: Not applicable
International: No

Purpose: To examine whether and how various organizational and environmental forces influence staffing in outpatient substance abuse treatment programs.

Design: Cross-Sectional Study

Methods: The authors used data from the 1995 and 2000 waves of the National Drug Abuse Treatment System Survey (NDATSS), a telephone survey of unit directors and clinical supervisors. Multivariate analyses with generalized estimating equations were conducted. Two measures of staffing were modeled: the number of weekly treatment hours per client, and active caseload.

Findings: Significant differences among private for-profit, not-for-profit, and public treatment programs, with public programs offering fewer hours per client and having larger caseloads. Units accredited by The Joint Commission offered more treatment hours per client. Joint Commission accreditation may be useful as a proxy indicator of quality.

Data Source Year: 1995 and 2000
Key Words: outpatient centers, substance abuse
Impact: Positive

Adverse Event Reporting: Lessons Learned from 4 Years of Florida Office Data


Year of Publication: 2005

Setting: Ambulatory clinic general

Accreditation Program: Ambulatory Health Care (AMB)
Certification Program: Not applicable
International: No

Purpose: To analyze the scope and incidence of adverse events and deaths resulting from office surgical procedures in Florida from 2000 to 2004.

Design: Descriptive Study
Methods: Reviewed all reported adverse incidents (the death of a patient, serious injury, and subsequent hospital transfer) occurring in an office setting from March 1, 2000, through March 1, 2004, from the Florida Agency for Health Care Administration. Physician board certification status, hospital privileges, and office accreditation were determined via telephone follow-up and Internet searches.

Findings: Of 286 reported office adverse events, 77 occurred in association with an office surgical procedure (19 deaths and 58 hospital transfers). There were seven complications and five deaths associated with the use of intravenous sedation or general anesthesia. There were no adverse events associated with the use of dilute local (tumescent) anesthesia. Liposuction and/or abdominoplasty under general anesthesia or intravenous sedation were the most common surgical procedures associated with a death or complication. Fifty-three percent of offices reporting an adverse incident were accredited by the Joint Commission on Accreditation of Healthcare Organizations, American Association for Accreditation of Ambulatory Surgical Facilities, or American Association for Ambulatory Health Care. Ninety-four percent of the involved physicians were board certified, and 97% had hospital privileges. Forty-two percent of the reported deaths were delayed by several hours to weeks after uneventful discharge or after hospital transfer.


Key Words: adverse event reporting, ambulatory surgery procedures

Impact: Neutral
Methods: Data were drawn from a group of northeastern regional hospitals implementing two voluntary retrospective error reporting systems.

Findings: Joint Commission accreditation score was negatively related to the initial number of errors and to the initial number of "No Harm" errors; hospitals with higher scores reported lower initial levels of both these types of errors.

Data Source Year: Not Identified

Key Words: hospitals, medical error reporting

Impact: Positive

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Hospital Quality Oversight by The Joint Commission on the Accreditation of Healthcare Organizations

Author(s): Moffett ML, Bohara A.


Year of Publication: 2005

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To analyze the system of hospital quality regulation in the United States, as minimal attention as been paid to the mechanisms of hospital quality oversight that are currently in place.

Design: Observational Study

Methods: Samples on the count of in-hospital deaths per calendar quarter were drawn from 453 hospitals between the years 1995 through 1997. The source for the data was the Healthcare Cost and Utilization Project's (HCUP) Nationwide Inpatient Sample (NIS) [AHRQ HCUP NIS]. The complete NIS sample is yearly observations on six to seven million individual admissions in 900 to 1,000 hospitals that form a 20% sample of the inpatient stays in the U.S. A sample of 5,409 observations was extracted for patients who were classified under medical diagnosis category (MDC) 1, and 5,401 observations for MDC 4 patients.
Findings: Joint Commission surveys provide an incentive to hospitals to improve processes of care for the period leading up to an inspection and that incentive gets eliminated after the inspection occurs. Time before/after inspection captures the preparation by hospitals for the Joint Commission inspection team. As an inspection is approaching, hospitals become more compliant with standards. While there is a benefit to hospital compliance in preparation of a survey, the benefit begins to diminish after the survey is over. Hospitals are motivated to prepare heavily for the full survey to minimize the cost of a follow-up inspection. It is likely that the Joint Commission change to the unannounced survey may reduce the preparedness of hospitals so that the expense is to fix performance areas that are identified by the full inspection.

Data Source Year: 1995-1997
Key Words: accreditation, hospitals, surveys
Impact: Positive
Findings: The average score for all patients treated before the new standards were put into place was 85.2 (sigma = 19.7), while the average for those treated after that date was 85.7 (sigma = 19.6). Although small in absolute size, the difference is statistically significant at the .001 level. Although satisfaction with pain control varied within a relatively narrow range in the 10 quarters before the institution implementation of the Joint Commission standards, it subsequently showed an overall upward trend, as well as a cyclical pattern. Such evidence for even a modest increase might encourage caregivers to continue their efforts to monitor their patients’ pain and to help patients control it. Joint Commission standards have shown increased satisfaction with pain control in hospitals.

Data Source Year: 1998-2004


Key Words: hospitals, pain control

Impact: Positive

Quality of Care in US Hospitals as Reflected by Standardized Measures, 2002–2004

Author(s): Williams SC, Schmaltz SP, Morton DJ, Koss RG, Loeb JM.


Year of Publication: 2005

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To examine hospitals’ performance on 18 standardized indicators and determine how accreditation plays a role in the outcomes.

Design: Descriptive Study

Methods: Examined hospitals’ performance on 18 standardized indicators of the quality of care for acute myocardial infarction, heart failure, and pneumonia. One measure assessed a clinical outcome (death in the hospital after acute myocardial infarction), and the other 17 measures assessed processes of care. Data were collected over a two-year period in more than 3000 accredited hospitals. All participating hospitals received quarterly feedback in the form of comparative reports throughout the study.
Findings: Descriptive analysis revealed a significant improvement (P<0.01) in the performance of U.S. hospitals on 15 of 18 measures, and no measure showed a significant deterioration. The magnitude of improvement ranged from three percent to 33 percent during the eight quarters studied. For 16 of the 17 process-of-care measures, hospitals with a low level of performance at baseline had greater improvements over the subsequent two years than hospitals with a high level of performance at baseline. Over a two-year period, the study observed consistent improvement in measures reflecting the process of care for acute myocardial infarction, heart failure, and pneumonia. Both quantitative and qualitative research are needed to explore the reasons for these improvements.

Data Source Year: 2002-2004
Link: https://www.ncbi.nlm.nih.gov/pubmed/16034011
Key Words: accreditation, heart failure, myocardial infarction, performance measures, pneumonia
Impact: Positive

Sterility of Surgical Site Marking

Author(s): Cronen G, Ringus V, Gavin S, Ryu J.
Year of Publication: 2005
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To determine whether marking of the site according to the Joint Commission Universal Protocol affected the sterility of the surgical site.
Design: Other
Methods: This experimental study included twenty volunteers. The right forearm was used as the experimental (marked) arm and the left forearm, as the control arm. The experimental forearms were marked with a surgical marker as described by the protocol. Both upper extremities were then sterilized from the antecubital fossa to the phalanges with a 7.5% povidone-iodine scrub followed by the application of a 10% povidone-iodine paint. Swabs were used to obtain samples from the experimental and control arms as well as from the marker and were sent for microbiological culture and analysis.

Findings: No growth was seen in the cultures of the swabs used on the experimental or control arms or on the marking pens. Preoperative marking of surgical sites in accordance with the Joint Commission Universal Protocol did not affect the sterility of the surgical field. This finding provides support for the safety of surgical site marking as indicated in The Joint Commission Universal Protocol.

Data Source Year: Not Identified

Link: https://www.ncbi.nlm.nih.gov/pubmed/16203882

Key Words: hospitals, surgical marking, wrong site surgery

Impact: Positive

The Effects of a Randomized Multi-centre Trial and International Accreditation on Availability and Quality of Clinical Guidelines

Author(s): Juul AB, Gluud C, Wetterslev J, Callesen T, Jensen G, Kofod-Enevoldsen A.


Year of Publication: 2005

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: Yes

Purpose: To examine the availability and quality of clinical guidelines on perioperative diabetes care in hospital units before and after a randomized clinical trial (RCT) and international accreditation.

Design: Randomized Controlled Trial
**Methods:** Interventional "before-after" study in 51 units (38 surgical and 13 anesthetic) in nine hospitals participating in a randomized controlled trial in the greater Copenhagen area; 27 of the units also underwent international accreditation.

**Findings:** The proportion of units with guidelines increased from 24/51 (47%) units before to 38/51 (75%) units after the trial. Among the 27 units without guidelines before the trial, significantly more accredited units compared to non-accredited units had a guideline after the trial (9/10 (90%) compared to 5/17 (29%). The quality of the systematic development scale and the clinical scales improved significantly after the trial in both accredited units (both p<0.001) and in non-accredited units (both p<0.02). The improvement of the systematic development scale was significantly higher in accredited than in non-accredited units (p<0.01). The combination of conducting both the Diabetic Postoperative Morbidity and Mortality Trial (DIPOM Trial) and international accreditation led to a significant improvement of both dissemination and quality of guidelines on perioperative diabetic care.

**Data Source Year:** 2000-2002


**Key Words:** hospitals

**Impact:** Positive

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**The Road to JCAHO Disease-Specific Care Certification a Step-by-Step Process Log**

**Author(s):** Morrison K.


**Year of Publication:** 2005

**Setting:** Hospital

**Accreditation Program:** Not applicable

**Certification Program:** Disease-specific Care

**International:** No

**Purpose:** To review general guidelines for disease-specific care (DSC) certification with an emphasis on Primary Stroke Center certification.

**Design:** Descriptive Study
Methods: The hospital, Lancaster General Hospital in Lancaster, Pennsylvania, logged the preparation process for its primary stroke certification survey by The Joint Commission.

Findings: The hospital found that the process for, and being surveyed for disease-specific certification proved very beneficial in a number of areas: increased communication and dialogue between departments, increased number of patients treated with IV Tissue plasminogen activator (tPA), implementation of dysphagia protocol for all patients (not just stroke population), increased nursing staff awareness of best practice standards for stroke, increased compliance with use of standard orders for stroke / transient ischemic attack, and increased compliance with The Joint Commission performance measures.

The process of applying for primary stroke center (PSC) certification has provided the hospital with a solid structure on which to build and maintain all their disease management programs. For the staff and physicians caring for the stroke population, there was a tremendous increase in awareness, and implementation, of the guidelines. Overall, this has resulted in better standardization of care, greater efficiency, and ultimately, better outcomes for the patients being treated.

Data Source Year: Not Identified


Key Words: cerebrovascular accident, disease specific, disease specific care certification, stroke

Impact: Positive

The Quality of Highly Regarded Adolescent Substance Abuse Treatment Programs: Results of an In-depth National Survey

Author(s): Brannigan R, Schackman BR, Falco M, Millman RB.


Year of Publication: 2004

Setting: Ambulatory clinic general

Accreditation Program: Ambulatory Health Care (AMB)

Certification Program: Not applicable

International: No

Purpose: To conduct the first systematic evaluation of the quality of highly regarded adolescent substance abuse treatment programs in the United States.
Design: Cross-Sectional Study
Methods: Assembled expert panel to develop nine key elements (five components each) of quality in adolescent substance abuse treatment programs. Conducted written and telephone surveys as well as follow-up questionnaires.
Findings: Mean score of all programs was 23.8 (out of possible 45). Top quartile programs were not more likely to be accredited (Commission on the Accreditation of Rehabilitation (CARE); Council on Accreditation (COA) or Joint Commission accreditation). Accredited programs were somewhat more likely to score at least four (of five) on the assessment and treatment matching element, but were similar to unaccredited programs on most other elements. Accreditation, which focuses on client safety and dignity, does not necessarily ensure higher quality performance; accreditation is not a useful measure of quality.

Data Source Year: 2001-2003
Key Words: ambulatory, substance abuse treatment
Impact: Positive

Potentially Inappropriate Medication Prescriptions Among Elderly Nursing Home Residents: Their Scope and Associated Resident and Facility Characteristics

Author(s): Lau DT, Kasper JD, Potter DE, Lyles A.
Year of Publication: 2004
Setting: Nursing home
Accreditation Program: Nursing Care Center (NCC)
Certification Program: Not applicable
International: No
Purpose: To estimate the scope of potentially inappropriate medication prescriptions (PIRx) among elderly residents in U.S. nursing homes (NHs), and to examine associated resident and facility characteristics.
Design: Cross-Sectional Study
**Methods:** Data from the 1996 Medical Expenditure Panel Survey Nursing Home Component (MEPS NHC) in a nationally representative sample (n=3,372) of nursing homes and residents were examined to determine the scope of potentially inappropriate medication (PIRx) (inappropriate drug choice, excess dosage, drug-disease interaction).

**Findings:** At a minimum, 50% of all residents aged 65 and older with a NH stay of three months or longer experienced at least one occurrence of potentially inappropriate medication (PIRx). Facility factors associated with greater odds of PIRx included more beds and lower nurse-to-resident ratio. Factors associated with lower odds of PIRx were fewer medications, residents with communication problems and being an accredited nursing home. Those residents living in Joint Commission accredited nursing homes were 30% less likely to have PIRx.

**Data Source Year:** 1996

**Link:** [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1361069/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1361069/)

**Key Words:** medication errors, medication prescriptions, nursing home, patient safety, quality of prescribing

**Impact:** Positive

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**Hospital Accreditation and Patient Satisfaction: Testing the Relationship**

**Author(s):** Heuer AJ.


**Year of Publication:** 2004

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To examine the relationship between two principal measures of institutional healthcare quality: accreditation scores and independently measured patient-satisfaction ratings.

**Design:** Cross-Sectional Study
Methods: This study looked at the relationship between overall and categorical Joint Commission survey scores and patient satisfaction data (from independent consulting firm). This study involved a retrospective review and comparison of summative and selected categorical hospital accreditation scores from The Joint Commission Healthcare Organizations and independently measured patient satisfaction ratings. A total of 41 acute care, 200-plus bed, not-for-profit hospitals in New Jersey and eastern Pennsylvania were included. Not clear what year(s) of accreditation data were used and when study was conducted.

Findings: There were no significant correlations between summative accreditation and satisfaction data or categorical accreditation and satisfaction data. Some significant differences with specific comparisons included: moderate correlation between summative accreditation scores and satisfaction with room. Moderate correlation between overall patient satisfaction and Joint Commission patient/family education category.

Data Source Year: Not Identified


Key Words: healthcare organizations, hospitals, patient satisfaction

Impact: Neutral

What is Driving Hospitals’ Patient-Safety Efforts?

Author(s): Devers KJ, Pham HH, Liu G.


Year of Publication: 2004

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To describe hospital systems’ and freestanding hospitals’ patient-safety initiatives; their progress toward implementing them; and the relative roles that professionalism, regulation, and markets play in stimulating progress.

Design: Descriptive Study
### Methods

The Community Tracking Study (CTS) was utilized; four rounds of site visits in 12 U.S. metropolitan areas, initially selected at random were undertaken. This paper focused on 87 Round Four interviews with leaders of the three to four largest hospitals in each community, including the chief executive officer (CEO), person responsible for or most knowledgeable about the hospital's patient-safety initiatives (such as a chief medical officer), and the director of patient care services. The paper also drew on 226 interviews with employers and brokers, health plans, and medical groups.

### Findings

Both interview and Community Tracking Study (CTS) patient survey data show that hospitals’ major patient-safety initiatives are primarily intended to meet Joint Commission requirements.

### Data Source Year

2002-2003

### Link


### Key Words

health consumer, health markets, healthcare quality, hospitals, patient safety, regulation

### Impact

Positive

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**Hospital Quality of Care: The Link Between Accreditation and Mortality**

**Author(s):** Joshi MS.

**Journal Information:** JCOM. 2003 Sept;10(9):473-80.

**Year of Publication:** 2003

**Setting:** Hospital

**Accreditation Program:** Hospital (HAP)

**Certification Program:** Not applicable

**International:** No

**Purpose:** To examine whether hospitals with higher accreditation scores have lower mortality rates.

**Design:** Cross-Sectional Study

**Methods:** A logistic regression model was built with the following independent variables: three Joint Commission accreditation measures (accreditation decision, accreditation total score, and score on nine individual Joint Commission standards) and eight hospital characteristics (ownership, teaching status, occupancy, bed size, total and Medicare discharges, geographic location, and setting). The dependent variable was risk-adjusted mortality rate.
Findings: Of the accreditation variables, only the accreditation decision variable evidenced a strong, statistically significant association with favorable mortality rate. There is a mild correlation between hospitals Joint Commission accreditation score and mortality rate.

Data Source Year: 1996 - 1997


Key Words: hospitals, mortality rate

Impact: Positive

Hospital Disclosure Practices: Results of a National Survey

Author(s): Lamb RM, Studdert DM, Bohmer RM, Berwick DM, Brennan TA.


Year of Publication: 2003

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To seek information on how and what hospitals were disclosing six months after the 2001 Joint Commission patient safety standards took effect. The authors also sought to gauge the importance of several potential barriers to disclosure, including fear of litigation.

Design: Cross-Sectional Study

Methods: A survey was developed through extensive consultation with physicians, risk managers, senior hospital administrators, patients, and experts in patient safety and quality improvement. A draft version was pretested on chief medical officers and risk managers at four different hospitals to determine validity and the type of respondent best able to answer the questions. Risk managers were determined to be the most knowledgeable and appropriate respondents.
Findings: The majority of hospitals reported that their hospital’s practice was to disclose harm at least some of the time, although only one third of the hospitals actually had board-approved policies in place. More than half of respondents reported that they would always disclose a death or serious injury, but when presented with actual clinical scenarios, respondents were much less likely to disclose preventable harms than to disclose non-preventable harms was twice as likely to occur at hospitals having major concerns about the malpractice implications of disclosure. The discussion states that the fact that 44% of surveyed hospitals were in the process of developing disclosure policies suggested that the Joint Commission standards along with Institute of Medicine messages about disclosure is driving substantial reform.

Data Source Year: 2002
Key Words: disclosure practices, hospitals
Impact: Positive

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**Joint Commission Accreditation and Quality of Care for Acute Myocardial Infarction**

Author(s): Chen J, Rathore SS, Radford MJ, Krumholz HM.


Year of Publication: 2003

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To examine the association between Joint Commission accreditation of hospitals, those hospitals’ quality of care, and survival among Medicare patients hospitalized for acute myocardial infarction (AMI).

Design: Cross-Sectional Study

Methods: Data was obtained from The Joint Commission on hospital accreditation level and summary scores for hospitals surveyed between 1994 and 1998. Hospitals that had neither a summary score nor an accreditation level reported were considered to be not surveyed.
Findings: Hospitals not surveyed by The Joint Commission had, on average, lower quality (less likely to use aspirin, beta blockers, and reperfusion therapy) and higher 30-day mortality rates than did surveyed hospitals. There was, however, considerable variation within accreditation categories in quality of care and mortality among surveyed hospitals. These findings suggest that the Joint Commission standards-based accreditation system has only a modest ability to assess quality of acute myocardial infarction (AMI) clinical care at any particular hospital. While accreditation provides some information concerning hospitals’ quality of care and outcomes in the aggregate, it is unknown whether the process of undergoing Joint Commission accreditation improves quality of care or whether this association reflects self-selection against Joint Commission evaluation by more poorly performing hospitals.

Data Source Year: 1994-1998
Key Words: acute myocardial infarction, hospitals
Impact: Mixed

Administrative Burden and its Implications for Outpatient Substance Abuse Treatment Organizations

Author(s): Lemak CH, Alexander JA, Campbell C.
Year of Publication: 2003
Setting: Behavioral health outpatient
Accreditation Program: Behavioral Health Care (BHC)
Certification Program: Not applicable
International: No
Purpose: To examine the extent of administrative burden on outpatient substance abuse treatment organizations and its implications for efficiency and productivity.
Design: Cross-Sectional Study
Methods: Using data from the 1995 and 2000 waves of the National Drug Abuse Treatment System Survey, the authors conducted multivariate analyses using generalized estimating equations. Two measures of organizational efficiency (operating expenses per therapy hour and salary and wages per therapy hour) and one measure of productivity (treatment sessions per full-time equivalent) were included.

Findings: The average administrative burden in outpatient substance abuse treatment units increased between 1995 and 2000. The weighted and adjusted national sample data showed that one hour of substance abuse treatment therapy was associated with approximately $60 (in 1999 dollars) of non-salary operating expenses and $124 in salaries and wages. Approximately eight treatment sessions were delivered each week by each full-time-equivalent staff member. The average weekly administrative burden consisted of about 71 hours of administrative work and almost 87 hours of clerical work. After controlling for various organizational characteristics, the authors found support for their predictions that administrative burden has negative relationships with organizational efficiency and productivity. This study uncovered different relationships for various types of burden and different types of organizational performance. It provided some evidence that, as treatment organizations face increased administrative burden, they may be shifting resources away from the provision of care. Joint Commission accredited had an increase in administrative hours and a number of clerically hours compared to non-Joint Commission accredited places.

Data Source Year: 1995-2000
Link: https://www.ncbi.nlm.nih.gov/pubmed/12719502
Key Words: outpatient, substance abuse, substance abuse treatment
Impact: Negative

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**Changes in Methadone Treatment Practices. Results from a National Panel Study, 1988-2000**

Author(s): D’Aunno T, Pollack HA.
Year of Publication: 2002
Setting: Behavioral health outpatient
Accreditation Program: Behavioral Health Care (BHC)
Certification Program: Not applicable
Purpose: To examine the extent to which U.S. methadone maintenance treatment programs have made changes in the past 12 years to provide adequate methadone doses and to identify factors associated with variation in program performance.

Design: Cohort Study

Methods: Program directors and clinical supervisors of nationally representative methadone treatment programs that varied by ownership and setting were surveyed in 1988 (n=172), 1990 (n=140), 1995 (n=116) and 2000 (n=150). The study compared methadone dosage levels in accredited and non accredited treatment centers.

Findings: The percentage of patients receiving methadone dosage levels less than the recommended 60mg/d decreased from 79.5% in 1988 to 35.5% in 2000. Results also show that programs with a greater percentage of African American patients are especially likely to dispense low dosages, while programs with Joint Commission accreditation are more likely to provide adequate methadone doses.

Data Source Year: 1988-2000

Link: https://www.ncbi.nlm.nih.gov/pubmed/12186602

Key Words: ambulatory, methadone treatment

Impact: Positive

Medication Errors Observed in 36 Health Care Facilities

Author(s): Barker KN, Flynn EA, Pepper GA, Bates DW, Mikeal RL.


Year of Publication: 2002

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To identify the prevalence of medication errors (doses administered differently than ordered) in three settings: hospitals accredited by The Joint Commission, non-accredited hospitals, and skilled nursing facilities.

Design: Cohort Study
Methods: Hospitals accredited by the Joint Commission on Accreditation of Healthcare Organizations, non-accredited hospitals, and skilled nursing facilities in Georgia and Colorado. Eighteen facilities were randomly selected for each of three facility types in each state: six accredited hospitals, six non-accredited hospitals and six skilled nursing facilities for a total of 36 sites. Medication errors were witnessed by observation, and verified by a research pharmacist. Clinical significance was judged by an expert panel of physicians.

Findings: In the 36 participating institutions, 19% of the doses were in error. The most frequent errors by category were wrong time (43%), omission (30%), wrong dose (17%), and unauthorized drug (4%). Seven percent of the errors were judged potential adverse drug events. Compared error rates in Joint Commission accredited and non-accredited facilities. There was no significant difference between error rates in the three facility types (p=.82) or by size (p=.39). Limitation: Accreditation was not the primary focus of the study.

Data Source Year: 1999
Key Words: hospitals, medication errors, skilled nursing facility
Impact: Neutral

Reducing Risk and Enhancing Value through Accreditation: Recent Data Indicate that Accreditation has a Quality Impact that Could be Significant to Risk Management

Author(s): Grachek, MK.
Journal Information: N/A
Year of Publication: 2002
Setting: Nursing home
Accreditation Program: Nursing Care Center (NCC)
Certification Program: Not applicable
International: No
Purpose: To examine how accredited facilities and non-accredited facilities fare in surveys conducted by CMS.
Design: Cross-Sectional Study
Methods: This study analyzed both routine triennial surveys and special surveys triggered by residents or family complaints. All surveys were conducted from November 2000 and October 2001. 13,654 facilities in the study sample. 1,538 were accredited, 617 were first accredited during the year of the study.

Findings: Joint Commission accredited facilities had fewer health care deficiencies and fewer life safety deficiencies than non-accredited facilities. Facilities accredited prior to the study year fared better than those first accredited within the study year suggesting a cumulative benefit from the accreditation process. Joint Commission accredited nursing facilities had significantly fewer health related deficiencies. Four-percent of non-accredited facilities were found to have such deficiencies, but only 2% of accredited facilities were cited for such deficiencies. Deficiencies involving immediate jeopardy were reported for 2.6% of non-accredited facilities, but only 1% of accredited facilities. Joint Commission accredited facilities had fewer complaints and total allegations versus non-accredited.

Data Source Year: 2000-2001
Key Words: long term care, nursing homes
Impact: Positive

The Impact of Hospital Quality-related Practices on Health Outcomes

Author(s): Freund D, Lichtenberg FR.
Year of Publication: 2000
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To assess the impact of compliance with Joint Commission accreditation on two standard measures of hospital quality and performance, death and length of stay, and explore the determinants of three other hospital-related measures of quality not yet analyzed in the literature: the probability of accidental poisonings, surgical/medical misadventures, and adverse affects of drugs.
Design: Cross-Sectional Study
Methods: The relationship between hospital quality score calculated by the Joint Commission and risk-adjusted indicators of outcomes and quality—mortality, rates of surgical/medical misadventures, adverse drug reactions, and length of stay is calculated from Nationwide Inpatient Sample discharge records. Length of stay is continuous and transformed into natural logarithms.

Findings: The results suggest that greater adherence to Joint Commission standards is not associated with reduced mortality or lower probability of avoidable hospital or physician-caused adverse outcomes. Other hospital characteristics, such as teaching/non teaching and urban/rural status, also show little or no correlation with risk-adjusted survival and adverse-event probabilities.

Data Source Year: Not Identified

Link: [http://surface.syr.edu/cpr/134/](http://surface.syr.edu/cpr/134/)

Key Words: health outcomes, hospitals

Impact: Neutral

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On-Site Primary Care and Mental Health Services in Outpatient Drug Abuse Treatment Units

Author(s): Friedmann PD, Alexander JA, Jin L, D'Aunno TA.


Year of Publication: 1999

Setting: Behavioral health outpatient

Accreditation Program: Behavioral Health Care (BHC)

Certification Program: Not applicable

International: No

Purpose: To examine the relationship between drug abuse treatment units' organizational features and the degree to which they provided onsite primary care and mental health services.

Design: Cross-Sectional Study

Methods: Data was extracted from the 1995 National Drug Abuse Treatment System Survey (DATSS), a panel study of America's outpatient drug abuse treatment units. From 1988 and 1990 waves of the DATSS, 429 programs remained eligible; interviews were obtained in 376 (88%) programs.
Findings: Joint Commission-certified and methadone programs delivered more on-site primary care services. Units affiliated with mental health centers provided more on-site mental health services but less direct medical care. Units with more dual-diagnosis clients provided more on-site mental health but fewer on-site HIV/AIDS treatment services. Organizational features appear to influence the degree to which health services are incorporated into drug abuse treatment. Fully integrated care might be an unattainable ideal for many such organizations, but quality improvement across the treatment system might increase the reliability of clients' access to health services. Thus, a commitment to high quality care, as manifested by Joint Commission accreditation, was associated with greater provision of on-site ancillary health services.

Data Source Year: 1995
Key Words: delivery of health care, mental health service, opioids, primary care, substance abuse treatment
Impact: Positive
Findings: Joint Commission accreditation was associated with more physical examinations and mental health care. This offers moderate support of the notion that conforming to national standards leads to better access to health services.

Data Source Year: 1995
Link: https://www.ncbi.nlm.nih.gov/pubmed/9888124
Key Words: delivery of health care, health service needs and demands, mental health services, opioids, primary care, substance abuse treatment centers, substance dependence, mental health services
Impact: Positive

Implementing Smoking Bans in American Hospitals: Results of National Survey

Author(s): Longo DR, Feldman MM, Kruse RL, Brownson RC, Petroski GF, Hewett JE.
Year of Publication: 1998
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To compare hospitals' smoking policies with The Joint Commission standards, to explore issues of policy development and implementation, and to ascertain the perceived effectiveness of the hospitals' smoking policies.
Design: Cross-Sectional Study
Methods: Eleven functional areas listed in Joint Commission on Accreditation of Hospitals 1980-1982 surveys were analyzed to compare recommendations for improving cited deficiencies.
Findings: Two years after implementation, 95.6% of hospitals met the new Joint Commission smoking ban standard; 90.9% of hospitals were in compliance with a second smoking standard requiring development and use of medical criteria for physician-ordered exceptions to the ban. Hospitals in tobacco-producing states had higher-than-average rates of compliance when compared with hospitals in other states. Hospitals providing psychiatric and/or substance abuse services had lower-than-average rates of compliance.

Data Source Year: 1994
Smoking Bans in US Hospitals: Results of a National Survey

Author(s): Longo DR, Brownson RC, Kruse RL.


Year of Publication: 1995

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To examine the compliance of Joint Commission-accredited hospitals with tobacco control standards and to assess whether hospital location and organizational characteristics were associated with compliance.

Design: Cross-Sectional Study

Methods: This study examines hospitals’ compliance with tobacco control standards enacted by the Joint Commission, using a cross-sectional design and data from on-site surveys. Compliance data from 3,327 hospitals that received site visits in 1992 and 1993 were matched with American Hospital Association Annual Survey of Hospitals data.

Findings: Two years after implementation, 95.6% of hospitals met the new Joint Commission smoking ban standard; 90.9% of hospitals were in compliance with a second smoking standard requiring development and use of medical criteria for physician-ordered exceptions to the ban. Hospitals in tobacco-producing states had higher-than-average rates of compliance when compared with hospitals in other states. Hospitals providing psychiatric and/or substance abuse services had lower than average compliance rates. Authors conclude that this first industry-wide smoking ban has been successful.

Data Source Year: 1992, 1993


Key Words: hospitals, smoking bans, tobacco control standards

Impact: Positive

Author(s): Kales SN.
Year of Publication: 1993
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To assess the evolution of restrictions and response to the JACCHO anti-smoking standards
Design: Cross-Sectional Study
Methods: Forty-three Boston-area hospitals were included in the survey.
Findings: The new Joint Commission standard requiring hospitals to be smoke-free by the end of 1993 seemed to have a strong effect on the implementation of smoking bans in hospitals. Employee surveys showed that such policies have demonstrated high levels of satisfaction. In 1989 over 90% of Americans favored workplace smoking restrictions or bans. Data also suggests that there is an increase in the quit rate for smokers, a decrease in the number of cigarettes smoked at work, a decrease in hospital fires, and decreased environmental tobacco smoke exposure as measured by air monitoring for nicotine.
Data Source Year: 1990-1992
Key Words: hospitals, smoking restrictions
Impact: Positive

Quality of Care and Accreditation Status of State Psychiatric Hospitals

Author(s): McGurrin MC, Hadley TR.
Year of Publication: 1991
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To examine if psychiatric hospitals that achieve accreditation or certification strive to maintain it and if hospitals that have not been accredited or certified strive to achieve such status.

Design: Cross-Sectional Study

Methods: Data from all state psychiatric hospitals in the U.S. were available through the Inventory of Mental Health Organizations. To determine whether hospitals maintained or increased their quality of care over time, data for 1984 and 1986 were compared.

Findings: Between 1984 and 1986, 94.9% of hospitals maintained their Joint Commission accreditation or certification while seven hospitals improved their status. Accreditation and certification motivates hospitals to maintain and improve their quality of care.

Data Source Year: 1984-1986

Link: [http://ps.psychiatryonline.org/doi/abs/10.1176/ps.42.10.1060](http://ps.psychiatryonline.org/doi/abs/10.1176/ps.42.10.1060)

Key Words: hospitals, psychiatric hospitals

Impact: Positive

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**Medicare Mortality Rates and Hospital Quality: Are They Related**

Author(s): Jessee WF, Schranz CM.


Year of Publication: 1990

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To examine the relationship between 1986 Medicare mortality rates and hospital quality, as measured by accreditation survey performance.

Design: Other
Methods: For purposes of the study, the authors included all hospitals from the Health Care Financing Administration (HCFA) report which, (a) had either significantly higher than predicted or significantly lower than predicted mortality rates as determined by HCFA; (b) had been surveyed by the Joint Commission in 1986; © had at least 50 deaths. Separate analyses of accreditation performance using three different measures (grid screening score, number of contingencies, and number of category I elements out of compliance) were undertaken for overall mortality rate, and for mortality among patients with stroke or acute heart disease.

Findings: No statistically significant (p = 0.05) differences were found in survey performance for any of the mortality groups compared. This lack of association between mortality and hospital quality, as measured by Joint Commission accreditation performance, reinforces concern about the use of mortality rates as measures of quality for public policy or patient decision-making purposes.

Data Source Year: 1986
Key Words: hospitals, mortality
Impact: Neutral

Rural Community Hospitals and Factors Correlated With Their Risk of Closing

Author(s): Mullner RM, Rydman RJ, Whiteis DG, Rich RF.
Year of Publication: 1989
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To identify variables correlated with rural community hospital closures in the period 1980-1987.
Design: Other
Methods: This study utilized epidemiologic case-control methods. One hundred sixty-one closed rural hospitals were matched one to three with a control group of 483 rural hospitals which remained open during the same period. A series of hospital performance indicators and demographic, economic, and social community variables were entered into a multiple logistic regression model. Four variables were found to be positively correlated with risk of closure. They are for-profit ownership; non-government, not-for-profit ownership; presence of a skilled nursing or other long-term care unit; and, the number of other hospitals in the county.

Findings: Variables negatively correlated with risk of closure were accreditation by the Joint Commission, the number of facilities and services, and membership in a multi-hospital system. Policy and research implications at the Federal, State, and local levels are discussed.

Data Source Year: 1980-1987
Key Words: rural hospitals
Impact: Positive
Findings: As the number of beds decreases, the percentage of the total population that is accredited decreases. Small or rural hospitals that are a part of a multi-hospital system have a higher accreditation rate than those that are autonomous. No significant difference in accreditation outcomes for small vs large hospitals. In the multivariate analysis, the best predictors of Joint Commission accreditation outcome are related to population, region, community hospital status, multi-hospital system status and number of beds. The most frequent areas of non-compliance with standards are generally the same regardless of hospital size or location.

Data Source Year: 1982-1983

Key Words: hospitals, rural hospitals, small hospitals

Impact: Positive

Are Public Hospitals in New York City Inferior to Voluntary, Nonprofit Hospitals

Author(s): Hyman HH.


Year of Publication: 1986

Setting: Hospital

Accreditation Program: Hospital (HAP)

Certification Program: Not applicable

International: No

Purpose: To examine if public hospitals in New York City are inferior to voluntary, nonprofit hospitals.

Design: Cross-Sectional Study

Methods: All 60 non-profit, acute-care hospitals in New York City were grouped into three classes: publicly supported hospitals (HHCs), voluntary hospitals under 400 beds critical access hospitals (CHs), and voluntary hospitals over 400 beds (SHs). Eleven functional areas listed in Joint Commission 1980-1982 surveys were analyzed to compare recommendations for improving cited deficiencies.
Findings: The survey findings showed that publicly supported hospitals (HHCs) had a mean of 37.8 recommendations per hospital compared to 42.7 for voluntary hospitals under 400 beds (CHs) and 46.9 for voluntary hospitals over 400 beds (SHs). The 11 functions were aggregated into three major components: safety, support, and direct medical services. CHs had fewer safety mean recommendations per hospital (18.7) than SHs (22.2) and HHCs (22.2), but on support and direct medical service components HHCs had fewer recommendations than the other two hospital groups. HHCs had fewer recommendations on nine of 11 functions compared to the other hospitals. Based on this data, HHCs do not appear inferior to either class of voluntary hospitals. According to the Joint Commission standards HHC hospitals performed just as well or relatively better on Joint Commission survey scores compared to voluntary hospitals under 400 beds and voluntary hospitals over 400 beds.

Data Source Year: 1980-1982
Link: https://www.ncbi.nlm.nih.gov/pubmed/3455672
Key Words: hospitals, public hospitals
Impact: Positive

Quality Assurance in a Children's Psychiatric Hospital

Author(s): Baggish RC, Wheaton A, Wellington SW.
Year of Publication: 1981
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To examine the use of short-term isolation (STI) in a children's psychiatric hospital using the Joint Commission quality assurance model. A Clinical Care Evaluation examined whether the hospital was providing quality use of STI and adequate documentation of its use.
Design: Descriptive Study
Methods: A medical record audit of 78 discharged patients and a review of unit records provided hospital staff with utilization and demographic statistics; structured interviews with staff and inpatients were conducted that provided information about their opinions of STI. The data gathered served as the basis for recommendations that led to planned, informed program changes.

Findings: The Joint Commission quality assurance model helped to investigate the quality of short-term isolation and the adequateness of documentation. This study found that of 78 discharged patients, 42 (54%) of them had experiences short-term isolation (STI). During their hospitalization, this group had a mean of 13 STI episodes. A total of 549 episodes at an average of 25.5 minutes per episode were reported for the four inpatient units studied. The mean length of hospitalization for the entire study population is 264 days with a range of one to 1633 days. When compared for mean length of stay, those who had experienced STI had a 50-day longer mean length of stay than those who had not (287 days versus 237 days).

Data Source Year: 1977-1978
Link: https://eric.ed.gov/?id=EJ246759
Key Words: isolation, psychiatric hospitals
Impact: Positive

The Relationship Between Administrative Activities and Hospital Performance: An Empirical Study of the Relation Between Managerial Techniques and Organizational Performance in 30 Medium-Sized Community General Hospitals

Author(s): Neuhauser D.
Year of Publication: 1971
Setting: Hospital
Accreditation Program: Hospital (HAP)
Certification Program: Not applicable
International: No
Purpose: To delineate the effect of administrative activities on hospital efficiency and quality of care.
Design: Cross-Sectional Study
Methods: Thirty medium-sized hospitals in the Chicago area were examined. Measures of efficiency included indexes based on cost, work force, Joint Commission evaluation, expert opinion and occupancy rate. The four quality measures are expert opinion, Joint Commission survey findings, percentage of board certified specialists and the Roemer, Moustafa and Hopkins severity-adjusted death rate index.

Findings: Hospital size has an important positive relationship with both efficiency and quality of care. Data shows that The Joint Commission has expanded its role of increasing visibility of consequences by providing basic information to medical staff and management on their comparative performance. This study concludes that rules, reports, and awareness have an additive positive effect on efficiency. Hospital administrators spend time observing other hospitals to be more aware of their own hospital's relative standing.

Data Source Year: Not Identified
Key Words: hospitals, performance
Impact: Positive

Test Record.

Author(s): Lynnwood Brown
Year of Publication: NA
Impact: Neutral

Records found: 175