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16. Improving Patient Safety in Handover From Intensive Care Unit to General Ward: A Systematic Review.
17. Has Quality Improvement Really Improved Outcomes for Babies in the Neonatal Intensive Care Unit?

End:
1. Interdisciplinary Family Conferences to Improve Patient Experience in the Neonatal Intensive Care Unit.

**Authors**
Trujillo, Jennifer A.; Fernandez, Yesenia; Ghafoori, Lyla; Lok, Kristina; Valencia, Arwin

**Source**
Health & Social Work; Nov 2017; vol. 42 (no. 4); p. 241-245

**Publication Date**
Nov 2017

**Publication Type(s)**
Academic Journal

**Database**
HBE

Abstract
Parents play a significant role in the development of their neonate. They can affect the length of stay in a neonatal intensive care unit (NICU) and are seen as an integral part of the team. Parents are often put in positions where difficult decision making is required of them in the care of their critically ill child. Studies suggest that one way to improve the family's experience and to encourage their involvement is by establishing a formal and focused family conference. Therefore, the NICU social workers and the interdisciplinary team collaborated to formulate strategies to improve communication that would enhance current practice. As a new initiative, the team decided that holding an interdisciplinary family conference (IFC) within the first two weeks of a baby's NICU admission is critical for parental involvement of infants less than 32 weeks gestation and those with congenital birth anomalies. The team determined that the primary outcome measure would be family satisfaction scores from hospital surveys. Since the implementation of IFCs, satisfaction scores showed steady improvement. This quality improvement project demonstrated that IFCs are an integral part of the family-centered care approach in the NICU. IFCs foster partnerships with families to ensure their involvement in all aspects of patient care and improve their experience in the NICU.

2. Predictors of Nurses' Intent To Continue Working at Their Current Hospital.

**Authors**
Ya-Ting Ke

**Source**
Nursing Economic$; Sep 2017; vol. 35 ; p. 259-266

**Publication Date**
Sep 2017

**Publication Type(s)**
Academic Journal

**Database**
HBE

Abstract
The article discusses a 2017 study on the predictors of U.S. nurses' intent to stay at their jobs. Results show that such factors as age, marital status, working years, clinical ladder and organizational climate play a significant role in intent, that intensive care unit work is a negative predictor, and that intent to stay can be improved by upgrading human resource management and hiring highly committed nurses. Also noted is the need to create supportive climates for nurses.

3. Selected Use of Telemedicine in Intensive Care Units Based on Severity of Illness Improves Cost-Effectiveness.

**Authors**
Yoo, Byung-Kwang; Kim, Minchul; Sasaki, Tomoko; Hoch, Jeffrey S; Marcin, James P

**Source**
Telemedicine journal and e-health : the official journal of the American Telemedicine Association; Jun 2017

**Publication Date**
Jun 2017

**Publication Type(s)**
Journal Article

**PubMedID**
28661790

**Database**
Medline
BACKGROUND: Telemedicine in the intensive care unit (tele-ICU) is expected to address geographic health disparities through more efficient resource allocation. Our previous economic evaluation demonstrated tele-ICU to be cost-effective in most cases and cost saving in some cases, compared to conventional intensive care unit (ICU) care without adequate intensivist coverage.

INTRODUCTION: This study’s objective is to examine how to optimize the cost-effectiveness of tele-ICU use by selecting highest risk (i.e., both highest mortality and highest cost) subpopulations. We also explore potential cost savings.

MATERIALS AND METHODS: We conducted simulation analyses among a hypothetical adult ICU patient cohort defined by the literature, distinguishing four types of hospitals: urban tertiary (primary analysis), urban community, rural tertiary, and rural community. The selected tele-ICU use was assumed to affect per-patient ICU cost and hospital mortality among highest risk subpopulations (10-100% of all ICU patients), defined by an established illness-severity measure.

RESULTS: We found a U-shaped relationship between the economic efficiency and selected tele-ICU use among all 4 hospital types. Optimal cost-effectiveness was achieved when tele-ICU was applied to the 30-40% highest risk patients among all ICU patients (incremental cost-effectiveness ratio \( \text{ICU cost} = \$25,392 \) [2014 U.S. dollars] per extending a quality-adjusted life year) in urban tertiary hospitals (primary analysis). Our break-even analyses indicated that cost saving seems more feasible when reducing ICU medical care cost, rather than lowering the cost to operate telemedicine alone.

DISCUSSION AND CONCLUSION: A selected use of tele-ICU based on severity of illness is likely to improve tele-ICU cost-effectiveness. To achieve cost saving, tele-ICU must reduce more than just telemedicine-related cost.

4. Use of Improving Palliative Care in the ICU (Intensive Care Unit) Guidelines for a Palliative Care Initiative in an ICU.

Authors: Mun, Eluned; Nakatsuka, Craig; Umbarger, Lillian; Ruta, Ruth; Mccarty, Tracy; Machado, Cynthia; Ceria-Ulep, Clementina
Source: The Permanente journal; 2017; vol. 21
Publication Date: 2017
Publication Type(s): Journal Article Review
PubMedID: 28241905
Database: Medline

Abstract: OBJECTIVE: For improved utilization of the existing palliative care team in the intensive care unit (ICU), a process was needed to identify patients who might need a palliative care consultation in a timelier manner. METHODS: A systematic method to create a new program that would be compatible with our specific ICU environment and patient population was developed. A literature review revealed a fairly extensive array of reports and numerous clinical practice guidelines, which were assessed for information and strategies that would be appropriate for our unit. RESULTS: The recommendations provided by the Center to Advance Palliative Care from its Improving Palliative Care in the ICU project were used to successfully implement a new palliative care initiative in our ICU. CONCLUSION: The guidelines provided by the Improving Palliative Care in the ICU project were an important tool to direct the development of a new palliative care ICU initiative.


Authors: Edger, Melinda
Source: Journal of wound, ostomy, and continence nursing : official publication of The Wound, Ostomy and Continence Nurses Society; ; vol. 44 (no. 3); p. 236-240
Publication Type(s): Journal Article
PubMedID: 28399011
Database: Medline
Abstract
PURPOSE The principal aim of this study was to determine the hospital-acquired pressure injury (HAPI) rate before and after introduction of a repositioning device, measure staff-perceived level of exertion with device use, and assess return on investment. DESIGN A single, before-and-after study. SUBJECTS AND SETTING The sample comprised 717 patients cared for in a 17-bed intensive care unit. The study setting was the neonatal intensive care unit at Bon Secours Maryview Medical Center located in the mid-Atlantic United States (Portsmouth, Virginia). METHODSA safe patient-handling intervention was implemented as part of a quality improvement initiative. The effect of this system was measured using several outcome measures: (1) HAPI occurrences on the sacral area and buttocks, (2) perceived effort of use by staff, and (3) cost analysis. We used the validated Borg Scale to measure perceived exertion that was ranked on a scale from 6 to 20, where higher scores indicate greater exertion. Cost comparisons were completed before and after introduction of the patient-repositioning system. Cost analysis was determined using internal dollar amounts calculated for each stage of pressure injury. The return on investment was calculated by comparing the cost of HAPIs and the product after the intervention with the costs of HAPIs before the intervention. RESULTS Analysis revealed a statistically significant reduction in HAPI occurrence from 1.3% to 0% (P < .004) when baseline manual repositioning (standard of care) was compared with use of the repositioning system. Caregivers reported significantly less exertion when using the repositioning device as compared with standard of care repositioning (P < .001). The return on investment was estimated to be $16,911. CONCLUSION Use of a repositioning device resulted in significantly reduced HAPIs. Perceived exertion for repositioning the patient with a repositioning device was significantly less than repositioning with standard of care. A cost analysis estimated a return on investment as a result of the intervention on HAPI prevention.

Authors: Pennell, Benjamin T; Murphy, Claire V; Byrd, Cindy; Tubbs, Crystal
Source: Critical care nursing quarterly; vol. 40 (no. 4); p. 414-423
PubMedID: 28834862
Abstract: Health care costs are rising in the United States with a significant amount of this spend attributed to pharmaceutical costs. The reasons for rising pharmaceutical costs are multifactorial and may include the increase in single source manufacturers of generic medications, drug shortages, the Food and Drug Administration's unapproved drug approval initiative, and generic rebranding. Many of these factors impact the intensive care unit directly creating the need to implement cost-savings strategies to ensure the financial health of an organization and reduce the financial burden for patients. To mitigate rising costs, we have outlined a number of both operational and clinical cost-savings measures derived from the literature and from institutional experience. Engaging the multidisciplinary team in the development and implementation of these initiatives will ensure their success and will maximize their impact.

7. Overcoming nursing barriers to intensive care unit early mobilisation: A quality improvement project.
Authors: Hunter, Oluwatobi O; George, Elisabeth L; Ren, Dianxu; Morgan, Douglas; Rosenzweig, Margaret; Klinefelter Tuie, Patricia
Source: Intensive & critical care nursing; Jun 2017; vol. 40 ; p. 44-50
Publication Date: Jun 2017
Publication Type(s): Journal Article
PubMedID: 28190550
Abstract: OBJECTIVESTo increase adherence with intensive care unit mobility by developing and implementing a mobility training program that addresses nursing barriers to early mobilisation. DESIGN An intensive care unit mobility training program was developed, implemented and evaluated with a pre-test, immediate post-test and eight-week post-test. Patient mobility was tracked before and after training. SETTING A ten bed cardiac intensive care unit. MAIN OUTCOME MEASURES The training program's efficacy was measured by comparing pre-test, immediate post-test and 8-week post-test scores. Patient mobilisation rates before and after training were compared. Protocol compliance was measured in the post training group. RESULTS Nursing knowledge increased from pre-test to immediate post-test (p < 0.001) and pre-test to 8-week post-test (p < 0.001). Mean test scores decreased by seven points from immediate post-test (80±12) to 8-week post-test (73±14). Fear significantly decreased from pre-test to immediate post-test (p < 0.03), but not from pre-test to 8-week post-test (p = 0.06) or immediate post-test to 8-week post-test (p = 0.46). Post training patient mobility rates increased although not significantly (p = 0.07). Post training protocol compliance was 78%. CONCLUSION The project successfully increased adherence with intensive care unit mobility and indicates that a training program could improve adoption of early mobility.

8. Impact of High-flow Nasal Cannula Therapy in Quality Improvement and Clinical Outcomes in a Non-invasive Ventilation Device-free Pediatric Intensive Care Unit.
OBJECTIVE To analyze the change in quality indicators due to the use of high-flow nasal cannula therapy as a non-invasive ventilation method in children with respiratory distress/failure in a noninvasive ventilation device-free pediatric intensive care unit.

METHODS The study was a retrospective chart review of children with respiratory distress/failure admitted 1 year before (period before high-flow nasal cannula therapy) and 1 year after (period after high-flow nasal cannula therapy) the introduction of high-flow nasal cannula therapy. We compared quality indicators as rate of mechanical ventilation, total duration of mechanical ventilation, rate of reintubation, pediatric intensive care unit length of stay, and mortality rate between these periods.

RESULTS Between November 2012 and November 2014, 272 patients: 141 before and 131 after high-flow nasal cannula therapy were reviewed (median age was 20.5 mo). Of the patients in the severe respiratory distress/failure subgroup, the rate of intubation was significantly lower in period after than in period before high-flow nasal cannula therapy group (58.1% vs. 76.1%; P < 0.05). The median pediatric intensive care unit length of stay was significantly shorter in patients who didn’t require mechanical ventilation in the period after than in the period before high-flow nasal cannula therapy group (3d vs. 4d; P < 0.05).

CONCLUSIONS Implementation of high-flow nasal cannula therapy in pediatric intensive care unit significantly improves the quality of therapy and its outcomes.


BACKGROUND Many jurisdictions are facing increased demand for intensive care. There are two long-term investment options: intensive care unit (ICU) versus step-down or intermediate care unit (IMCU) capacity expansion. Relative cost-effectiveness of the two investment strategies with regard to patient lives saved has not been studied to date.

METHODS We expand a generic system dynamics simulation model of emergency patient flow in a typical hospital, populated with empirical evidence found in the medical and hospital administration literature, to estimate the long-term effects of expanding ICU versus IMCU beds on patient lives saved under a common assumption of 2.1% annual increase in hospital arrivals. Two alternative policies of expanding ICU by two beds versus introducing a two-bed IMCU are compared over a ten-year simulation period. Russel equation is used to calculate total cost of patients’ hospitalization. Using two possible values for the ratio of ICU to IMCU cost per inpatient day and four possible values for the percentage of patients transferred from ICU to IMCU found in the literature, nine scenarios are compared against the baseline scenario of no capacity expansion.

RESULTS Expanding ICU capacity by two beds is demonstrated as the most cost-effective scenario with an incremental cost-effectiveness ratio of 3684 (US $) per life saved against the baseline scenario. Sensitivity analyses on the mortality rate of patients in IMCU, direct transfer of IMCU destined patients to the ward upon completing required IMCU length of stay in the ICU, admission of IMCU patient to ICU, adding two ward beds, and changes in hospital size do not change the superiority of ICU expansion over other scenarios.

CONCLUSIONS In terms of operational costs, ICU beds are more cost effective for saving patients than IMCU beds. However, capital costs of setting up ICU versus IMCU beds should be considered for a complete economic analysis.

10. Intensive care unit admission after endovascular aortic aneurysm repair is primarily determined by hospital factors, adds significant cost, and is often unnecessary.

Authors Hicks, Caitlin W; Alshaikh, Husain N; Zarkowsky, Devin; Bostock, Ian C; Nejim, Besma; Malas, Mahmoud B
Source Journal of vascular surgery; Oct 2017
Publication Date Oct 2017
Publication Type(s) Journal Article
PubMedID 29074117
Database Medline
BACKGROUNDA large proportion of endovascular aortic aneurysm repair (EVAR) patients are routinely admitted to the intensive care unit (ICU) for postoperative observation. In this study, we aimed to describe the factors associated with ICU admission after EVAR and to compare the outcomes and costs associated with ICU vs non-ICU observation.

METHODSAll patients undergoing elective infrarenal EVAR in the Premier database (2009-2015) were included. Patients were stratified as ICU vs non-ICU admission according to location on postoperative day 0. Both patient-level (sociodemographics, comorbidities) and hospital-level (teaching status, hospital size, geographic location) factors were analyzed using univariate and multivariable logistic regression to determine factors associated with ICU vs non-ICU admission. Overall outcomes and hospital costs were compared between groups.

RESULTS Overall, 8359 patients underwent elective EVAR during the study period, including 4791 (57.3%) ICU and 3568 (42.7%) non-ICU admissions. Patients admitted to ICU were more frequently nonwhite and had more comorbidities, including congestive heart failure, coronary artery disease, chronic kidney disease, chronic obstructive pulmonary disease, diabetes, and hypertension, than non-ICU patients (all, P < .03). ICU admissions were more common in small (<300 beds), urban, and nonteaching hospitals and varied greatly depending on surgeon specialty and geographic region (P < .001). A pattern emerged when admission location was clustered by hospital; ICU patients were treated at hospitals where 96.7% (interquartile range, 84.5%-98.9%) of patients were admitted to ICU after EVAR, whereas non-ICU patients were treated at hospitals where only 7.5% (interquartile range, 4.9%-25.8%) were admitted to ICU after EVAR. A multivariable logistic regression model accounting for patient-, operative-, and hospital-level differences had a significantly lower area under the curve for predicting ICU admission after EVAR than a model accounting only for hospital factors (area under the curve, 0.76 vs 0.95; P < .001). The overall rate of adverse events was higher for ICU vs non-ICU patients (16.3% vs 13.7%; P < .001). Failure to rescue (2.9% vs 3.9%; P = .42) and in-hospital mortality (0.4% vs 0.4%; P = .81) were similar between groups. After adjusting for patient and hospital factors as well as for postoperative adverse events, ICU admission after EVAR cost $1475 (95% confidence interval, $768-2183) more than non-ICU admission (P < .001).

CONCLUSIONS Among patients undergoing elective EVAR, postoperative ICU admission is more closely associated with hospital practice patterns than with individual patient risk. Routine ICU admission after EVAR adds significant cost without reducing failure to rescue or in-hospital mortality.


Authors Settle, Margaret Doyle; Coakley, Amanda Bulette; Annese, Christine Donahue
Source Creative nursing; Feb 2017; vol. 23 (no. 1); p. 47-52
Publication Date Feb 2017
Publication Type(s) Journal Article
PubMedID 28196568
Database Medline
Available at Creative nursing from ProQuest (Hospital Premium Collection) - NHS Version

Abstract Human milk provides superior nutritional value for infants in the neonatal intensive care unit and is the enteral feeding of choice. Our hospital used the system engineering initiative for patient safety model to evaluate the human milk management system in our neonatal intensive care unit. Nurses described the previous process in a negative way, fraught with opportunities for error, increased stress for nurses, and the need to be away from the bedside and their patients. The redesigned process improved the quality and safety of human milk management and created time for the nurses to spend with their patients.

12. A Study of Morbidity and Cost of Peripheral Venous Cannulation in Neonates Admitted to Paediatric Surgical Intensive Care Unit.

Authors Tandale, Sushama Raghunath; Dave, Nandini; Garasia, Madhu; Patil, Shalil; Parelkar, Sandesh
Source Journal of clinical and diagnostic research : JCDR; Mar 2017; vol. 11 (no. 3); p. UC08
Publication Date Mar 2017
Publication Type(s) Journal Article
PubMedID 28511483
Database Medline
Available at Journal of Clinical and Diagnostic Research : JCDR from Europe PubMed Central - Open Access
Abstract
INTRODUCTION Peripheral venous access in sick neonates is indicated for administration of fluids, drugs or nutrients. AIM We conducted an audit of peripheral venous access in neonates admitted to paediatric surgical intensive care unit to study the morbidity, time spent on cannulation and cost with its use. MATERIALS AND METHODS One hundred consecutive neonates requiring hospital admission to paediatric surgical intensive care unit in a period of one year were included in the study. Peripheral venous access was secured in all patients. We conducted an audit for the number of venipuncture sites, wastage of cannulae, cost, time spent on cannulation and morbidity with its use. Neonates were divided into three groups depending on their surgical intervention. Namely, Group A (thoracic procedures), Group B (bowel surgery) and Group C (other surgery and non-operative cases). RESULTS In Group A, mean venepuncture sites were 10.66, used cannulae were 5.6, wasted cannulae were 4.3, total cost of cannulation was 870 rupees and 93.78 minutes were spent in cannulation per neonate. In Group B, mean venepuncture sites were 7.58, used cannulae were 4.35, wasted cannulae were 2.59, total cost of cannulation was 603 rupees and 59.85 minutes were spent in cannulation per neonate. In Group C mean venepuncture sites were 2.78, used cannulae were 2.9, wasted cannulae were 0.57, total cost of cannulation was 232 rupees and 26.51 minutes were spent in cannulation per neonate. Thrombophlebitis severity was greater in neonates who had longer ICU stay and ventilator dependent days. CONCLUSION Peripheral venous cannulation of longer duration is costly, time consuming, and associated with significant neonatal morbidity. It may be worthwhile to consider alternative vascular devices such as peripherally inserted central catheters or central venous catheters in such situations.

13. Repeated sleep-quality assessment and use of sleep-promoting interventions in ICU.
Authors Menear, Ashika; Elliott, Rosalind; M Aitken, Leanne; Lal, Sara; McKinley, Sharon
Source Nursing in critical care; Oct 2017
Publication Date Oct 2017
Publication Type(s) Journal Article
PubMedID 29044819
Database Medline
Abstract To describe sleep quality using repeated subjective assessment and the ongoing use of sleep-promoting interventions in intensive care. It is well known that the critically ill experience sleep disruption while receiving treatment in the intensive care unit. Both the measurement and promotion of sleep is challenging in the complex environment of intensive care unit. Repeated subjective assessment of patients’ sleep in the intensive care unit and use of sleep-promoting interventions has not been widely reported. An observational study was conducted in a 58-bed adult intensive care unit. Sleep quality was assessed using the Richards-Campbell Sleep Questionnaire (RCSQ) each morning. intensive care unit audit sleep-promoting intervention data were compared to data obtained prior to the implementation of a sleep guideline. Patients answered open-ended questions about the facilitators and deterrents of their sleep in intensive care unit. The sample (n = 50) was predominately male (76%) with a mean age: 62.6±16.9 years. Sleep quality had not improved significantly since the guideline was first implemented. The mean Richards-Campbell Sleep Questionnaire score was 47.9±24.1 mm. The main sleep deterrents were discomfort and noise. Frequently cited facilitators were nothing (i.e. nothing helped) and analgesia. The Richards-Campbell Sleep Questionnaire was used on repeated occasions, and sleep-promoting interventions were used extensively. There was no evidence of improvement in sleep quality since the implementation of a sleep guideline. The use of the Richards-Campbell Sleep Questionnaire for the subjective self-assessment of sleep quality in intensive care unit patients and the implementation of simple-promoting interventions by intensive care unit clinicians is both feasible and may be the most practical way to assess sleep in the intensive care unit context.

Authors Elmer, Jonathan; Yamane, David; Hou, Peter C; Wilcox, Susan R; Bajwa, Ednan K; Hess, Dean R; Camargo, Carlos A; Greenberg, Steven M; Rosand, Jonathan; Pallin, Daniel J; Goldstein, Joshua N; Takhar, Sukhjit S
Source Neurocritical care; Feb 2017; vol. 26 (no. 1); p. 58-63
Publication Date Feb 2017
Publication Type(s) Journal Article
PubMedID 27605253
Database Medline
BACKGROUND
Fever is common among intensive care unit (ICU) patients. Clinicians may use microbiological cultures to differentiate infectious and aseptic fever. However, their utility depends on the prevalence of infection; and false-positive results might adversely affect patient care. We sought to quantify the cost and utility of microbiological cultures in a cohort of ICU patients with spontaneous intracerebral hemorrhage (ICH).

METHODS
We performed a secondary analysis of a cohort with spontaneous ICH requiring mechanical ventilation. We collected baseline data, measures of systemic inflammation, microbiological culture results for the first 48 h, and daily antibiotic usage. Two physicians adjudicated true-positive and false-positive culture results using standard criteria. We calculated the cost per true-positive result and used logistic regression to test the association between false-positive results with subsequent antibiotic exposure.

RESULTS
Overall, 697 subjects were included. A total of 233 subjects had 432 blood cultures obtained, with one true-positive (diagnostic yield 0.1%, $22,200 per true-positive) and 11 false-positives. True-positive urine cultures (5%) and sputum cultures (13%) were more common but so were false-positives (6 and 17%, respectively). In adjusted analysis, false-positive blood and sputum results were associated with increased antibiotic exposure.

CONCLUSIONS
The yield of blood cultures early after spontaneous ICH was very low. False-positive results significantly increased the odds of antibiotic exposure. Our results support limiting the use of blood cultures in the first two days after ICU admission for spontaneous ICH.

15. Controlled trial to improve resident sign-out in a medical intensive care unit.

Authors
Nanchal, Rahul; Aebly, Brian; Graves, Gabrielle; Truwit, Jonathon; Kumar, Gagan; Taneja, Amit; Dagar, Gaurav; Graf, Jeanette; Hubertz, Erin; Ramalingam, Vijaya; Fletcher, Kathryn E

Source
BMJ quality & safety; Aug 2017

Publication Date
Aug 2017

Publication Type(s)
Journal Article

PubMedID
28784841

Database
Medline

Abstract
OBJECTIVE
Poor sign-out or handover of care may lead to preventable patient harm. Critically ill patients in intensive care units (ICU) are complex and prone to rapid clinical deterioration. If clinical deterioration occurs, timeliness of appropriate interventions is essential to prevent or reduce adverse outcomes. Therefore sign-outs need to efficiently transmit key information and provide anticipatory guidance. Interventions to improve resident-to-resident ICU sign-outs have not been well described. We conducted a controlled trial to test the effectiveness of a standardised ICU sign-out process to the usual ICU sign-out.

DESIGN
Prospective controlled trial.

SETTING
A 26-bed medical intensive care unit (MICU) in an urban tertiary academic medical centre.

SUBJECTS
Residents rotating through the MICU.

INTERVENTION
ICU-specific written sign-out template.

METHODS
Residents completed postcall surveys assessing satisfaction with verbal and written sign-outs and incidence of non-routine events. Our main outcome of interest was the occurrence of non-routine events. MAIN RESULTS
Compared with the intervention group, on significantly more nights, night float residents in the control group encountered patients who were sicker than sign-out would have suggested (15.94% vs 43.75%; p<0.0001). On significantly fewer nights, night float residents in the intervention group indicated that either something happened to patients that was unexpected (18.84% vs 36.51%; p=0.023) or they were insufficiently prepared for (4.35% vs 35.94%; p<0.0001). Similarly, on fewer nights, residents in the intervention group indicated that they had to perform interventions that were unplanned or unanticipated (15.9% vs 37.7%; p=0.005). CONCLUSION
A structured sign-out process compared with usual sign-out significantly reduced the occurrence of non-routine events in an academic MICU.

16. Improving Patient Safety in Handover From Intensive Care Unit to General Ward: A Systematic Review.

Authors
Wibrandt, Ida; Lippert, Anne

Source
Journal of patient safety; Apr 2017

Publication Date
Apr 2017

Publication Type(s)
Journal Article

PubMedID
28452913

Database
Medline
17. Has Quality Improvement Really Improved Outcomes for Babies in the Neonatal Intensive Care Unit?

**Authors**
Spitzer, Alan R

**Source**
Clinics in perinatology; Sep 2017; vol. 44 (no. 3); p. 469-483

**Abstract**
During the past decade, the emergence of outcome measurement and quality improvement in the neonatal intensive care unit, far more than the introduction of new research approaches or novel therapies, has had a profound effect on improving outcomes for premature neonates. Collection of outcome data, review of those data, and strategies to identify and resolve problems using continuous quality improvement methods can dramatically improve patient outcomes. It is likely that further initiatives in quality improvement will continue to have additional beneficial effects for the neonate.


**Authors**
Brooks, Laura Anne; Manias, Elizabeth; Nicholson, Patricia

**Source**
American journal of critical care : an official publication, American Association of Critical-Care Nurses; Jul 2017; vol. 26 (no. 4); p. 336-341

**Abstract**
BACKGROUND Clinicians in the intensive care unit commonly face decisions involving withholding or withdrawing life-sustaining therapy, which present many clinical and ethical challenges. Communication and shared decision-making are key aspects relating to the transition from active treatment to end-of-life care. OBJECTIVES To explore the experiences and perspectives of nurses and physicians when initiating end-of-life care in the intensive care unit. METHODS The study was conducted in a 24-bed intensive care unit in Melbourne, Australia. An interpretative, qualitative inquiry was used, with focus groups as the data collection method. Intensive care nurses and physicians were recruited to participate in a discipline-specific focus group. Focus group discussions were audio-recorded, transcribed, and subjected to thematic data analysis. RESULTS Five focus groups were conducted; 17 nurses and 11 physicians participated. The key aspects discussed included communication and shared decision-making. Themes related to communication included the timing of end-of-life care discussions and conducting difficult conversations. Implementation and multidisciplinary acceptance of end-of-life care plans and collaborative decisions involving patients and families were themes related to shared decision-making. CONCLUSIONS Effective communication and decision-making practices regarding initiating end-of-life care in the intensive care unit are important. Multidisciplinary implementation and acceptance of end-of-life care plans in the intensive care unit need improvement. Clear organizational processes that support the introduction of nurse and physician end-of-life care leaders are essential to optimize outcomes for patients, family members, and clinicians.

The mortality rate of critically ill patients is high and the cost of the intensive (ICU) department is among the highest within the health-care industry. The cost will continue to increase because of the aging population in the western world. In the present review, we will discuss the impact of changes in ICU department organization on patient outcome and cost-effectiveness. The general perception that drug and treatment discoveries are the main drivers behind improved patient outcome within the health-care industry is in general not true. This is especially the case for the ICU department, in which the past decades’ organizational changes were the main drivers behind the reduction of ICU mortality. These interventions were at the same time able to reduce cost, something which is rare for drug and treatment discoveries. The organization of the intensive care department has been changed over the past decades, resulting in better patient outcome and reduction of cost. Major changes are the implementation of the “closed format” and electronic patient record. Furthermore, we will present possible future options to improve the organization of the ICU department to further reduce mortality and cost such as pooling of dedicated ICU into mixed ICU and embedding business strategies such as lean and total quality management. Challenges are ahead as the ICU is taking up the largest share of national health-care expenditure, and with the aging of the population, this will continue to increase. Besides future improvements of organizational structures within the ICU, the focus should also be on the implementation of and compliance with proven beneficial organizational structures.
## Strategy 307876

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