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Literature search results

Search completed for:
Search required by: 26 September 2012
Search completed on: 21 September 2012
Search completed by: Richard Bridgen

Search details

Patients being looked after in the recovery room instead of intensive care units due to bed shortages and overspills. Is there any information about this problem and have any solutions been found and implemented?

Resources searched

NHS Evidence; TRIP Database; Cochrane Library; BNI; CINAHL; EMBASE; HMIC MEDLINE; Google Scholar

*Database search terms:* "critical care"; exp CRITICAL CARE; “intensive care”; ICU; CCU; exp INTENSIVE CARE UNITS; “recovery room”; POST ANESTHESIA CARE UNITS; "post anaesthesia care unit"; "post anesthetics care unit"; PACU; recovery adj0 ward; recovery adj0 room; recovery adj0 area

*Evidence search string(s):* ("recovery room" OR "recovery ward" OR "recovery area" OR PACU OR "post anesthesia care unit" OR "post anesthesia care area" OR "post anaesthetics care unit" OR "post anaesthetics care area") ("intensive care" OR "critical care" OR ICU OR CCU)

*Google search string(s):* (~"recovery room" OR PACU OR ~"post anesthesia care unit") (~"intensive care" OR ~"critical care" OR ICU OR CCU)

Summary

There is some research into this topic which you may find useful.

Guidelines

*National Confidential Enquiry into Patient Outcome and Death*

Peri-operative Care: Knowing the Risk - A review of the peri-operative care of surgical patients 2011

Royal College of Anaesthetists
Guidance on the provision of anaesthesia services for Post-operative Care 2009

Royal College of Nursing

Transferring children to and from theatre. RCN position statement and guidance for good practice 2011

Standards for contingency management and delivery of critical care in a post anaesthesia care unit (PACU) 2010

Evidence-based reviews

None found.

Published research

1. Evaluation of recovery patterns in post-operative patients using fast-track criteria and modified aldrete scoring system after surgical anaesthesia in patient management

Author(s) Maqbool M.S., Shahani A.S., Draz M.U.

Citation: Medical Forum Monthly, June 2012, vol./is. 23/6(14-18), 1029-385X (June 2012)

Publication Date: June 2012

Abstract: Aim: The post-operative period is the most critical phase for the surgical patients, requiring close observation. A study was conducted to assess and evaluate patients post-operative recovery course following surgical anesthesia using post anesthesia recovery assessment scoring systems for optimal and timely patient management, so as to ensure a safe postoperative recovery course, thus decreasing morbidity as well as mortality. Study Design: Observational Study Place and Duration of Study: This study was carried out in the Department of Anesthesia and Intensive Care, Holy Family Hospital, Rawalpindi, from the period 30-01-2010 to 18-2-2010 and in the Department of Anesthesia and Intensive Care Unit, Islam Teaching Hospital, Islam Medical college, Sialkot, from 16-9-2010 to 28-2-2011. Materials and Methods: In the study, patients undergoing elective surgical procedures in general as well as regional anesthesia were included. The patient's age group was between 15-85 years and belonged to American Society of Anaesthesiologists (ASA) physical status class 1-3 as well as medically optimized ASA-class 4 patients. On discontinuation of general anesthesia patients were assessed for conscious state, cardiovascular stability (pulse and blood pressure) and motor recovery. The Fast-Track criteria were used to assess initial recovery of patient in the operating area. Patients were then shifted to Post Anesthesia Care unit, where recovery assessment was done by continuation of Fast-Track Criteria<sup>1,2,3</sup> and also by employing the Modified Aldrete scoring system<sup>4</sup> immediately, and at five, fifteen, thirty minutes and then at one hr interval depending on clinical physiological status of the patient and the level of score achieved. The patients further management intervention was guided in the light of scores attained, which depicted the physiological alteration. The Post-Anesthesia Discharge scoring system <sup>5,6</sup> and Aldrete recovery score<sup>7</sup> modified for day surgery was used to assess physiological status of patient before shifting them to the surgical ward or for assessment of home readiness. Data was compared and analyzed by SPSS version 17. Mean +/- S.D was calculated for quantitative variables, age etc. Frequencies and percentages were presented for qualitative variables e.g. gender and various scoring systems used in the study. Spearman’s Rank correlation was used to check interdependence between the two variables i.e. Fast-Track criteria<sup>1,2,3</sup> and Modified Aldrete scoring system<sup>4</sup>. The P-value of <0.05 was considered statistically significant. Results: A total of one hundred and ninety nine patients were checked in the study (one hundred and six females and ninety three males) out of which one hundred and fifty seven i.e. 78.89% patients were shifted to respective wards uneventfully. A total of eleven patients i.e. 5.52% needed urgent advanced management care and were shifted to surgical intensive care, while three patients i.e. 1.50% were placed on ventilatory support as guided by the recovery scoring system scores attained and pathological status of the patients. Thirty one patients i.e. 15.57% were discharged to home safely. Thirty patients i.e. 15.07% were 'Fast Tracked' in the study from 'the operation
theatre bypassing the first stage of the traditional two stage recovery process. The value of correlation co-efficient (r) was significant at the 0.01 level. Conclusion: The Fast-Track scoring criteria\(^1,2,3\) along with Modified Aldrete scoring system\(^4\) offers guidance in evaluating post-operative recovery of patients from surgical anesthesia for optimal patient management, so as to decrease morbidity.

**Source:** EMBASE

Available *in print* at ULHT journal article requests. Complete the online form to obtain articles.

2. A clinical pathway in a post-anaesthesia care unit to reduce length of stay, mortality and unplanned intensive care unit admission

**Author(s)** Eichenberger A.-S., Haller G., Cheseaux N., Lechappe V., Garnerin P., Walder B.

**Citation:** European Journal of Anaesthesiology, December 2011, vol./is. 28/12(859-866), 0265-0215;1365-2346 (December 2011)

**Publication Date:** December 2011

**Abstract:** Context The immediate post-operative period is critical with regard to post-operative outcomes. Objective To assess the impact of a clinical pathway implemented in a post-anaesthesia care unit on post-operative outcomes. Design A retrospective cohort study based on electronic patient records. Setting A post-anaesthesia care unit in a Swiss University Hospital. Patients Adult patients after elective and non-elective surgery. Intervention Implementation of a clinical pathway with a nurse-driven fast-track programme for uncomplicated patients (systematic use of Aldrete score and systematic discharge without physician) and a physician-driven slow-track programme for complicated patients (systematic handover between operating theatre and post-anaesthesia care unit, and between post-anaesthesia care unit and ward, systematic use of standardised care for post-operative events, strict discharge criteria). Main outcome measures Post-anaesthesia care unit length of stay, in-hospital mortality and unplanned admission to the ICU after post-anaesthesia care unit stay. Methods Comparison of the periods before and after implementation using median and interquartile range (IQR) and rates (%). Statistical analysis: unpaired Student's t-test, \(x^2\) test, Wilcoxon rank test. Differences were adjusted through multivariate analyses with linear and logistic regression (level of significance: \(P<0.05\) and expressed as odds ratio (OR) with 95% confidence interval (95% CI). Results After implementation, the median post-anaesthesia care unit length of stay decreased for all patients from 163 min (IQR 103-291) to 148 min (IQR 96-270; \(P<0.001\)); in the American Society of Anaesthesiologists 1-2 patients, it decreased from 152 min (IQR 102-249) to 135 min (IQR 91-227; \(P < 0.001\)). In-hospital mortality decreased for all patients from 1.7 to 0.9% [adjusted OR 0.36 (95% CI 0.22-0.59), \(P<0.001\)]. The number of unplanned admissions to the ICU decreased from 113 (2.8%) to 91 (2.1%) [adjusted OR 0.73 (95% CI 0.53-0.99), \(P=0.04\)]. Conclusion A clinical pathway in a post-anaesthesia care unit can significantly reduce length of stay and can improve postoperative outcome. 2011 Copyright European Society of Anaesthesiology.

**Source:** EMBASE

Available *in print* at ULHT journal article requests. Complete the online form to obtain articles.

3. A clinical and economic evaluation of fast-track recovery after cardiac surgery

**Author(s)** Salhiyyah K., Elsobky S., Raja S., Attia R., Brazier J., Cooper G.J.

**Citation:** Heart Surgery Forum, December 2011, vol./is. 14/6(E330-E334), 1098-3511;1522-6662 (December 2011)

**Publication Date:** December 2011

**Abstract:** Background: In the last 5 decades, the care of cardiac surgical patients has improved with the aid of strategies aimed at facilitating patient recovery. One of the innovations in this context is "fast-tracking" or "rapid recovery." This process refers to all interventions that aim to shorten a patient's stay in the intensive care unit (ICU) through
accelerating the patient's transfer to a step-down or telemetry unit and to the general ward. Methods: Patients were allocated to 2 groups. The fast-track group (n = 84) went through an independent theatre recovery unit (TRU). The patients were then transferred on the same day to an intermediate care unit and transferred on the following day to the ward. The intensive care group (52 patients) went to the ICU for at least 1 day, after which they were transferred to the ward. Results and Discussion: The fast-track pathway significantly reduced the length of stay (LOS) in an intensive care facility (P < .001). The duration of intubation was reduced from a median of 4.08 hours (range, 1.17-13.17 hours) in the intensive care group to 2.75 hours (range, 0.25-18.57 hours) in the fast-track group (P < .001). However, the median values for total hospital LOS, incidences of complications, reintubation, and readmission were similar for the 2 groups. The incidence of failure in the fast-track group was 10%. The mean (SD) cost of the perioperative care was 4182 +/- 2284 ($6683 +/- 3650) for the fast-track patients, compared with 4553 +/-1355 ($7277 +/- $2165) for the intensive care group. Conclusion: Fast-track recovery after cardiac surgery decreases the intensive care LOS and the total duration of intubation. It is a cost-effective strategy compared with conventional recovery protocols; however, it does not reduce the total hospital LOS or the incidence of complications. 2011 Forum Multimedia Publishing, LLC.

Source: EMBASE

Available in print at ULHT journal article requests. Complete the online form to obtain articles.

4. The development of an extended care facility in the recovery unit: the post-anaesthesia care unit.

Author(s) Reed, H

Citation: Journal of Perioperative Practice, Jun 2011, vol. 21, no. 6, p. 210-214, 1750-4589 (June 2011)

Publication Date: June 2011

Abstract: Critical care for surgical patients in the recovery area at St Thomas's Hospital, London. The development of a post-anaesthesia care unit (PACU) is described and the benefits and challenges outlined, including the effect on intensive care services. The selection of suitable patients, their admission and discharge and length of stay are discussed. [(BNI unique abstract)] 5 references

Source: BNI

Available in print at ULHT journal article requests. Complete the online form to obtain articles.

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5. A qualitative study: why prolonged stay in the recovery room?

Author(s) Lalani, Sharifa B., Ali, Fauzia, Kanji, Zeenatkhanu, Jaffer, Salma, Ali, Mohammed

Citation: British Journal of Anaesthetic & Recovery Nursing, 01 February 2011, vol./is. 12/1-2(9-13), 17426456

Publication Date: 01 February 2011

Source: CINAHL

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6. Do we need special recovery units for C-section patients?

Author(s) Vercauteren M

Citation: Acta Anaesthesiologica Belgica, 2011, vol./is. 62/1(1-2), 0001-5164;0001-5164
7. Handover in the perioperative care process.

Author(s) Kalkman CJ

Citation: Current Opinion in Anaesthesiology, December 2010, vol./is. 23/6(749-53), 0952-7907;1473-6500 (2010 Dec)

Abstract: PURPOSE OF REVIEW: To summarize recent developments in the study of perioperative handovers, when patients are transferred between various hospital locations (emergency room, ward, operating room, recovery room, intensive care unit) and handovers between care providers (doctors and nurses) when changing shifts.RECENT FINDINGS: There has been tremendous activity in studying handovers during the last 2 years, and many potential improvements were developed, implemented and evaluated in real-life care settings. In hospitals that have electronic patient records (EPRs), a promising approach is to support the various verbal handover processes with software tools that can combine specific handover items such as to-do lists, daily goals, and concerns, with automatically extracted data from the EPRs.SUMMARY: There is now widespread consensus that robust, structured handover processes are critical for safe patient care. Checklists and software tools to facilitate the handover process may improve the reliability of handovers and relieve the stress on residents of handing over their patients to the incoming resident. However, there is no 'one size fits all' solution to the problems of handover. Handover improvements will need to be tailored to the specific care setting and handover type.

Source: Medline

Available in fulltext at the ULHT Library and Knowledge Services' eJournal collection

8. Barriers to effective PARU handover.

Author(s) Squire, Sally, Annells, Merilyn

Citation: ACORN: the Journal of Perioperative Nursing in Australia, 01 December 2010, vol./is. 23/4(16-20), 14487535

Abstract: Aim: This paper describes a pilot study that sought to identify and describe factors influencing effectiveness of clinical handover when patients are transferred from post-anaesthetic recovery unit (PARU) nursing care to care by nurses in a surgical unit. Background: The clinical handover process is a critical component of patient care. Inadequate handover practices can risk patient safety and interrupt continuum of care. Method: Interpretive description, a qualitative approach, was used to research current handover processes and associated perceptions, opinions and experiences of eight female registered nurses who conduct and receive this clinical handover within a regional hospital in Australia - four PARU nurses and four surgical nurses. Findings: Two prime categories of the study are reported, encompassing contextual issues about formal and informal communication systems and processes that may impact upon handover in PARU. Barriers to an effective PARU handover are also identified and discussed. Conclusion: There are now increasing numbers of guidelines, templates and literature available to clinicians and policy makers to assist in transformation of handover practices and culture. However, changes to improve effectiveness of handover need to be researched, implemented, refined and sustained by clinicians in everyday practice.

Source: CINAHL

Available in print at ULHT journal article requests. Complete the online form to obtain
9. Preferences for Visitation in the PACU.

Author(s) DeWitt L, Albert NM

Citation: Journal of PeriAnesthesia Nursing, 01 October 2010, vol./is. 25/5(296-301), 10899472

Publication Date: 01 October 2010

Source: CINAHL

Available in print at ULHT journal article requests. Complete the online form to obtain articles.

10. Readmission to intensive care: development of a nomogram for individualising risk

Author(s) Frost S.A., Tam V., Alexandrou E., Hunt L., Salamonson Y., Davidson P.M., Parr M.J., Hillman K.M.

Citation: Critical care and resuscitation : journal of the Australasian Academy of Critical Care Medicine, June 2010, vol./is. 12/2(83-89), 1441-2772 (Jun 2010)

Publication Date: June 2010

Abstract: BACKGROUND: Readmission to intensive care during the same hospital stay has been associated with a greater risk of in-hospital mortality and has been suggested as a marker of quality of care. There is lack of published research attempting to develop clinical prediction tools that individualise the risk of readmission to the intensive care unit during the same hospital stay. OBJECTIVE: To develop a prediction model using an inception cohort of patients surviving an initial ICU stay. DESIGN, SETTING AND PARTICIPANTS: The study was conducted at Liverpool Hospital, Sydney. An inception cohort of 14 952 patients aged 15 years or more surviving an initial ICU stay and transferred to general wards in the study hospital between 1 January 1997 and 31 December 2007 was used to develop the model. Binary logistic regression was used to develop the prediction model and a nomogram was derived to individualise the risk of readmission to the ICU during the same hospital stay. MAIN OUTCOME MEASURE: Readmission to the ICU during the same hospital stay. RESULTS: Among members of the study cohort there were 987 readmissions to ICU during the study period. Compared with patients not readmitted to the ICU, patients who were readmitted were more likely to have had ICU stays of at least 7 days (odds ratio [OR], 2.2 [95% CI, 1.85-2.56]); non-elective initial admission to the ICU (OR, 1.7 [95% CI, 1.44-2.08]); and acute renal failure (OR, 1.6 [95% CI, 0.97-2.47]). Patients admitted to the ICU from the operating theatre or recovery ward had a lower risk of readmission to ICU than those admitted from general wards, the emergency department or other hospitals. The maximum error between observed frequencies and predicted probabilities of readmission to ICU was estimated to be 3%. The area under the receiver operating characteristic curve of the final model was 0.66. CONCLUSION: We have developed a practical clinical tool to individualise the risk of readmission to the ICU during the same hospital stay in patients who survive an initial episode of intensive care.

Source: EMBASE

Available in print at ULHT journal article requests. Complete the online form to obtain articles.

11. The ICU patient.

Author(s) Clifford, T


Publication Date: April 2010

Abstract: The recovery of critical care patients in the post-anaesthesia care unit (PACU)
and in ICU, focusing on whether it is safe and appropriate for patients to bypass PACU and go straight to ICU in certain circumstances. Staffing ratio issues and the required competencies of ICU staff managing post-anaesthesia intensive care patients are discussed. ([BNI unique abstract]) 7 references

Source: BNI

Available in print at ULHT journal article requests. Complete the online form to obtain articles.

12. Recovery at the post anaesthetic care unit after breast cancer surgery

Author(s) Gartner R., Callesen T., Kroman N., Kehlet H.

Citation: Danish medical bulletin, February 2010, vol./is. 57/2(A4137), 1603-9629 (Feb 2010)

Publication Date: February 2010

Abstract: INTRODUCTION: Extant literature shows that women having undergone breast cancer surgery have substantial problems at the post-anaesthesia care unit (PACU). Based on nursing reports and elements of the discharge scoring system recommended by The Danish Society of Anaesthesiology and Intensive Care Medicine, the present prospective, observational study aims to determine why these patients stayed at PACU. MATERIAL AND METHODS: The study included 116 consecutive patients having undergone surgery for breast cancer. Postoperative nausea and vomiting (PONV), pain, sedation, respiration, oxygen saturation (SpO2), blood pressure and heart rate were scored at the PACU, and nurses were asked why discharge was delayed in case patients were not discharged at the time the discharge criteria were met. The outcome measures were the proportion of patients ready for discharge upon arrival at the PACU, patient time spent until discharge criteria were met, time to actual discharge, and the contribution of each discharge criterion in postponing discharge from the unit, as well as nurse-reported factors for the delay. RESULTS: 31% of the patients were ready for discharge upon arrival at the PACU. The mean time until the discharge criteria were met was 40 min (standard deviation (SD) = 46 min). The actual time spent at the PACU was 110 min (SD = 75 min). A total of 36 patients had low SpO2 (< 90%) upon arrival to the PACU. In 36 cases, discharge was delayed by the workload at the PACU and/or waiting for patient transport to the ward. CONCLUSION: Low SpO2 (< 90%), the workload at the PACU and time spent waiting for transport to the ward were the primary reasons why patients stayed at the PACU after breast cancer surgery.

Source: EMBASE

Available in print at ULHT journal article requests. Complete the online form to obtain articles.


Author(s) Ehrenfeld JM, Seim AR, Berger DL, Sandberg WS

Citation: Surgical Innovation, September 2009, vol./is. 16/3(258-65), 1553-3506;1553-3506 (2009 Sep)

Publication Date: September 2009

Abstract: BACKGROUND: The authors describe a process improvement effort to achieve direct-from-recovery-room discharge for elective laparoscopic cholecystectomy patients--without prior patient selection.METHODS: The authors developed and implemented a new pathway, and then measured the learning curve (ie, success rate over time for direct discharge) and compared patients achieving direct discharge with patients admitted after surgery.RESULTS: The learning curve between the first patient and steady-state performance was 56 patients. A total of 80% of patients achieved direct discharge. Directly discharged patients were younger (P<.001), had lower ASA physical status classifications (P<.005), and left the recovery room earlier in the day (P<.0001). However, elderly patients and those with high ASA scores frequently could be directly discharged from the recovery room.CONCLUSIONS: Through small team based rapid cycle process improvement,
direct-from-recovery-room discharge of laparoscopic cholecystectomy patients can be achieved in an unselected patient population with a short learning curve.

**Source:** Medline

Available in fulltext at EBSCOhost

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14. Determining the effective length of stay for post-operative patients in the PACU through the location of influencing factors.

**Author(s)** Kol Y, Filhaver A, Shitrit S, Rubin L

**Citation:** British Journal of Anaesthetic & Recovery Nursing, 01 August 2009, vol./is. 10/3(51-56), 17426456

**Publication Date:** 01 August 2009

**Source:** CINAHL

Available in print at ULHT journal article requests. Complete the online form to obtain articles.

15. Your local anaesthetic/recovery unit: what makes it special?

**Author(s)** Tyne, S

**Citation:** British Journal of Anaesthetic & Recovery Nursing, Feb 2009, vol. 10, no. 1, p. 15-17, 1742-6456 (February 2009)

**Publication Date:** February 2009

**Abstract:** Description of the Post Anaesthetic Care Unit (PACU) at the Elective Orthopaedic Centre in Epsom, Surrey. The ability of the unit to transfer care from recovery to intensive care level without the patient being moved is highlighted, along with staffing of the PACU and training available. ([BNI unique abstract]) 0 references

**Source:** BNI

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16. Redesigning intensive care unit flow using variability management to improve access and safety

**Author(s)** Ryckman, Frederick C, Yelton, Paul A, Anneken, Amy M, Kiessling, Pamela E, Schoettker, Pamela J

**Citation:** Joint Commission Journal on Quality and Patient Safety, 2009, vol./is. 35/11, 1553-7250

**Publication Date:** 2009

**Abstract:** Poor flow of patients into and out of the ICU can result in gridlock and bottlenecks that disrupt care and have a detrimental effect on patient safety and satisfaction, hospital efficiency, staff stress and morale, and revenue. Beginning in 2006, Cincinnati Children's Hospital Medical Centre implemented a series of interventions to 'smooth' patient flow through the system. Key activities included patient flow models based on surgical providers' predicted need for intensive care and predicted length of stay; scheduling the case and an ICU bed at the same time; capping and simulation models to identify the appropriate number of elective surgical cases to maximise occupancy without cancelling elective cases; and a morning huddle by the chief of staff, manager of patient services, and representatives from the operating room, paediatric ICUS, and anaesthesia to confirm that day's plan and anticipate the next day's needs. New elective surgical admissions to the paediatric ICU were restricted to a maximum of five cases per day. Diversion of patients to the cardiac ICU, keeping patients in the post-anaesthesia care unit longer than expected, and delaying or cancelling cases are now rare events. Since
implementation of the operations management interventions, there have been no cases when beds in the paediatric ICU were not available when needed for urgent medical or surgical use. A system for smoothing flow, based on an advanced predictive model for need, occupancy, and length of stay, coupled with an active daily strategy for demand/capacity matching of resources and needs, allowed much better early planning, predictions, and capacity management, thereby ensuring that all patients are in suitable ICU environments. Cites 17 references. [Journal abstract]

Source: HMIC
Available in print at ULHT journal article requests. Complete the online form to obtain articles.

17. Who receives postoperative intensive and intermediate care?

Author(s) Weissman C., Klein N.
Citation: Journal of Clinical Anesthesia, June 2008, vol./is. 20/4(263-270), 0952-8180 (June 2008)
Publication Date: June 2008
Abstract: Study Objectives: To examine the effects of preoperative and intraoperative factors that determine whether to provide postoperative intensive or intermediate care. Design: Prospective observational study. Setting: Tertiary-care university hospital. Patients: 3,066 ASA physical status I, II, III, and IV adult patients, 1,233 of whom were transferred to floor or the ambulatory surgery unit after a short postoperative recovery room stay (group 1), whereas the other 1,883 were admitted to intermediate and intensive care areas (group 2). Interventions: None. Measurements: Demographic and clinical information including preoperative medical history, extent of intraoperative care, and postoperative course were collected. Intraoperative activities were examined with the Operative Complexity Score and the Intraoperative Therapeutic Intensity Score. Results: Almost all patients undergoing complex surgery (cardiac surgery and neurosurgery) received postoperative intermediate or intensive care, even if they had no significant underlying systemic diseases (ASA physical status I and II). Patients with severe underlying diseases (ASA physical status III and IV), but who underwent less extensive surgery, tended to receive intensive and intermediate care. Postoperative mechanical ventilation was associated with receipt of intensive rather than intermediate care. Interestingly, 10% of the elective surgery patients in group 2 unexpectedly received intensive or intermediate care because of intraoperative and immediate postoperative complications. Conclusions: Receipt of postoperative intermediate and intensive care is associated with distinct patterns of preoperative and intraoperative factors. 2008 Elsevier Inc. All rights reserved.

Source: EMBASE
Available in print at ULHT journal article requests. Complete the online form to obtain articles.

18. Medication errors in the PACU.

Author(s) Hicks RW, Becker SC, Windle PE, Krenzischek DA
Citation: Journal of PeriAnesthesia Nursing, 01 December 2007, vol./is. 22/6(413-419), 10899472
Publication Date: 01 December 2007
Source: CINAHL
Available in print at ULHT journal article requests. Complete the online form to obtain articles.

19. Why calculating PACU staffing is so hard and why/how operations research specialists can help.

Author(s) Dexter F

Author(s) Kreimer S

Citation: Hospitals & Health Networks, June 2007, vol./is. 81/6(32), 1068-8838;1068-8838 (2007 Jun)

Publication Date: June 2007

Source: Medline

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21. Use of postanesthesia care unit for purposes other than postanesthesia observation.

Author(s) Saastamoinen P, Piispa M, Niskanen MM

Citation: Journal of PeriAnesthesia Nursing, 01 April 2007, vol./is. 22/2(102-107), 10899472

Publication Date: 01 April 2007

Source: CINAHL

Available in print at ULHT journal article requests. Complete the online form to obtain articles.

22. The effect of direct-from-recovery room discharge of laparoscopic cholecystectomy patients on recovery room workload.

Author(s) Seim AR, Andersen B, Berger DL, Sokal SM, Sandberg WS

Citation: Surgical Innovation, December 2006, vol./is. 13/4(257-64), 1553-3506;1553-3506 (2006 Dec)

Publication Date: December 2006

Abstract: Ambulatory laparoscopic cholecystectomy pathways move patients through the hospital without encountering delays caused by congested inpatient bed units. However, redirecting patients to a direct discharge pathway might not be beneficial if recovery capacity is further taxed by additional workload. In this study, we attempt to assess the operational impact on recovery room workload of directly discharging laparoscopic cholecystectomy patients to home. We conducted a retrospective case-control review of recovery room flow sheets to determine recovery room time and effort required for laparoscopic cholecystectomy patients. The study was restricted to patients of a single surgeon to minimize confounds from surgical technique. Fifty-seven case patients (May 1, 2004, through November 30, 2004), all managed with intent to directly discharge from the recovery room, were compared with control patients (n = 81) from the corresponding 6 months in the year before the direct-discharge plan. The times (mean; 95% confidence interval) to meet objective criteria for adequate pain control (3.5 minutes [2.1 to 5.9] versus 4.0 minutes [2.6 to 6.1]) and readiness for discharge from phase 1 recovery (8.1 minutes [4.8 to 13.6] versus 6.1 minutes [4.0 to 9.5]) were not different between the groups. The number and distribution of interventions documented in the recovery process were not
different between groups, nor was there a difference in recovery room length of stay (158 minutes [138 to 182] versus 149 minutes [132 to 167]). In our study, recovery room records reveal little if any increased workload associated with the direct-to-home discharge of laparoscopic cholecystectomy patients.

Source: Medline
Available in fulltext at EBSCOhost
Available in print at ULHT journal article requests. Complete the online form to obtain articles.

23. Outcomes following a shortage of high dependency unit beds for surgical patients

Author(s): McIlroy D.R., Coleman B.D., Myles P.S.

Citation: Anaesthesia and Intensive Care, August 2006, vol./is. 34/4(457-463), 0310-057X (August 2006)

Publication Date: August 2006

Abstract: In an environment of resource rationing there are numerous patients who are unable to be admitted to a high-dependency unit (HDU) postoperatively despite the belief that this is the optimal discharge destination for them from the recovery room. It is unknown if this is associated with an increase in adverse outcomes. We performed an observational study, over a two-month period, comparing outcomes between patients who were admitted to HDU postoperatively and patients who, although an HDU bed was preferred, were discharged from the recovery room to the general ward due to an unavailability of HDU beds. Our primary outcome variable was hospital length-of-stay. We found an almost twofold increase in hospital length-of-stay in the group of patients admitted to the HDU. ASA IV patients were more likely to be admitted to HDU. However, the increased length-of-stay in the HDU group persisted even after stratifying patients according to ASA status. There was no difference between groups in all other baseline demographic variables, including POSSUM score, which is used as a predictor of postoperative morbidity and mortality. We believe that the most likely explanation for our findings is that the baseline risk between groups is, in fact, subtly different. This is not detected by preoperative scoring systems. However, clinical judgement in the recovery room appears to select a group of patients for HDU admission who subsequently have a slower postoperative recovery, despite no measurable increase in complication rate. That there was no increase in adverse events in the group of patients unable to be admitted to HDU due to a lack of bed availability suggests that current clinical judgement in a resource-rationed environment is functioning adequately, but the study was not powered to detect such a difference.

Source: EMBASE
Available in fulltext at EBSCOhost
Available in print at ULHT journal article requests. Complete the online form to obtain articles.

24. Reporting and classification of patient safety events in a cardiothoracic intensive care unit and cardiothoracic postoperative care unit.

Author(s): Nast PA, Avidan M, Harris CB, Krauss MJ, Jacobsohn E, Petlin A, Dunagan WC, Fraser VJ

Citation: Journal of Thoracic & Cardiovascular Surgery, October 2005, vol./is. 130/4(1137), 0022-5223;1097-685X (2005 Oct)

Publication Date: October 2005

Abstract: OBJECTIVES: The objective was to evaluate a new mechanism for reporting and classifying patient safety events to increase reporting and identify patient safety priorities. METHODS: A voluntary patient safety event reporting system accessible by all health care workers was implemented in the Cardiothoracic Intensive Care and Post Anesthesia Care Units. Information collected included patient identifiers; date, time, and location of report and event; type and description of event; and severity score. Narrative descriptions of events were analyzed and coded to describe when in the care process the
event occurred, what occurred, and a causal classification of why the event occurred. RESULTS: A total of 163 reports describing 157 events were received. These included 121 events reported from the intensive care unit (25.3 reported events per 1000 patient-days), a 3-fold increase compared with the preexisting on-line reporting system. A total of 113 reports (69%) came from nurses, 31 from physicians (19%), and 10 from other staff (6%). A majority of events (85, 54%) reached the patient but caused no harm. Multiple causes were identified for the majority of events. The most frequent causes were related to human factors (48%) and organizational factors (34%). CONCLUSIONS: Health care workers were willing to use the patient safety event reporting system, which yielded a broad range of patient safety data. Patient safety events are multifaceted and often have multiple causal factors. Application of a causal classification model for patient safety event coding in the intensive care and preoperative and postoperative care units is feasible and facilitates local communication of important event-related information.

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25. Overnight intensive recovery: elective open aortic surgery without a routine ICU bed.

Author(s) Callaghan CJ, Lynch AG, Amin I, Fazel M, Lindop MJ, Gaunt ME, Varty K
Citation: European Journal of Vascular & Endovascular Surgery, September 2005, vol./is. 30/3(252-8), 1078-5884;1078-5884 (2005 Sep)
Publication Date: September 2005
Abstract: OBJECTIVES: Most patients are managed on the intensive care unit (ICU) after elective open aortic surgery. We preoperatively identify patients suitable for extubation in theatre with overnight management in theatre recovery before discharge back to the ward (overnight intensive recovery (OIR)). The safety of this was investigated. DESIGN: Retrospective case note analysis of all patients who underwent EOAS from 1998 to 2002, recording in-hospital morbidity and mortality. Physiological and operative severity score for the enumeration of mortality and morbidity (POSSUM) data were collected prospectively. METHODS: Patients were divided into those selected for OIR and those booked for elective ICU admission. Observed morbidity and mortality data were compared with predicted outcomes generated by Portsmouth-POSSUM and POSSUM equations. RESULTS: Hundred and fifty-two out of 178 patients used OIR; 155 patients had abdominal aortic aneurysm (AAA) repair. The elective ICU group had significantly higher anaesthetic risk scores (ASA grade), larger AAA, greater intraoperative blood loss and longer operations. In the OIR group, ten patients (7%) needed ICU admission within 48h postoperatively. Complications occurred in 85/152, with two deaths. There was no excess morbidity or mortality in the OIR group (predicted 95% CI 83-105 and 5-17, respectively). CONCLUSION: Most patients having elective open aortic surgery can be managed safely using OIR.

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Author(s) Naughton C, Cheek L, O'Hara K
Citation: British Journal of Nursing, 24 February 2005, vol./is. 14/4(214-219), 09660461
Publication Date: 24 February 2005
Abstract: Fast-track or rapid-recovery pathways following cardiac surgery are becoming common practice in many cardiac units in order to maximize use of scarce critical care resources. Within the UK, rapid recovery generally describes same-day discharge from the initial intensive care facility to a lower-dependency unit. There are no nationally agreed protocols to help guide this practice. In a London teaching hospital a nurse-led audit was
undertaken to identify which patients were selected for rapid recovery and to evaluate safety (length of hospital stay and incidences of postoperative complications) compared to a conventional recovery pathway. The study also sought to gain insight into the patients’ views on rapid recovery. Data were collected on 104 patients, all patients (n = 56) who followed a rapid-recovery pathway were included. A comparison group (n = 48) was selected from patients who followed a conventional recovery but who were eligible for rapid recovery. The primary outcome, median length of hospital stay was 6 days for both groups, but the rapid-recovery group experienced significantly less postoperative complications. Rapid recovery as currently practised on this unit is safe for carefully selected cardiac surgical patients but barriers to rapid recovery need to be explored.

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27. The postoperative care of the critically ill patient.

**Author(s)** Windell L

**Citation:** Journal of Operating Department Practice, 01 February 2005, vol./is. 1/11(20-23), 17467357

**Publication Date:** 01 February 2005

**Abstract:** An example of the type of care given to a critically ill patient in the postoperative recovery phase.

**Source:** CINAHL

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28. The postoperative care of the critically ill patient.

**Author(s)** Windell, L

**Citation:** Journal of Operating Department Practice, Feb 2005, vol. 1, no. 11, p. 20-23, 1746-7357 (February 2005)

**Publication Date:** February 2005

**Abstract:** Case study of a critically ill patient transferred to the recovery room following surgery related to crush injuries. Monitoring, assessment, support and complications are discussed. [BNI unique abstract] 25 references

**Source:** BNI

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29. 'Fast track' to lower ICU costs and better care.

**Author(s)** Mcginess, Julia, Park, Gilbert, Singh, Vinod

**Citation:** British Journal of Health Care Management, 2005, vol./is. 11/1(13-17), 1358-0574

**Publication Date:** 2005

**Abstract:** Using new anaesthetic techniques, selected post-operative patients need no longer go routinely to the ICU. Use of potent, short-acting analgesic (remifentanil) means a reduction in anaesthetic use during surgery, faster immediate post-operative recovery, speedier extubation and less need for mechanical ventilation. A fast track procedure, using
a special recovery area rather than the ICU, brings substantial savings in costs, as well as improvements in patient care. Such a procedure meets the aims of both health care managers and clinicians. 2 figs. 1 table [Summary]

**Source:** HMIC

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30. The Official ASPAN position: ICU overflow patients in the PACU.

**Author(s)** Mamaril, M

**Citation:** Journal of PeriAnesthesia Nursing, Aug 2001, vol. 16, no. 4, p. 274-277, 1089-9472 (August 2001)

**Publication Date:** August 2001

**Abstract:** American Society of PeriAnesthesia Nurses’ statement on intensive care unit patients being cared for in postanesthesia care units. [(BNI unique abstract)] 2 references

**Source:** BNI

Available *in print* at ULHT journal article requests. Complete the online form to obtain articles.


**Author(s)** Johannes, M

**Citation:** Journal of Post Anesthesia Nursing, Oct 1994, vol. 9, no. 5, p. 297-300, 0883-9433 (October 1994)

**Publication Date:** October 1994

**Abstract:** Integrating short-term Intensive Care Unit patients in the Post Anesthesia Care Unit. [(BNI unique abstract)] 2 references

**Source:** BNI

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