Search Strategy

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Full search strategy.
1. How can end of life care excellence be normalized in hospitals? Lessons from a qualitative framework study

Authors: Noble C.; Teodorczuk A.; Grealish L.; Shanahan B.; Hiremagular B.; Morris J.; Yardley S.

Source: BMC Palliative Care; Aug 2018; vol. 17 (no. 1)

Publication Date: Aug 2018

Publication Type(s): Article

Abstract: Background: There is a pressing need to improve end-of-life care in acute settings. This requires meeting the learning needs of all acute care healthcare professionals to develop broader clinical expertise and bring about positive change. The UK experience with the Liverpool Care of the Dying Pathway (LCP), also demonstrates a greater focus on implementation processes and daily working practices is necessary. Methods: This qualitative study, informed by Normalisation Process Theory (NPT), investigates how a tool for end-of-life care was embedded in a large Australian teaching hospital. The study identified contextual barriers and facilitators captured in real time, as the 'Clinical Guidelines for Dying Patients' (CgDp) were implemented. A purposive sample of 28 acute ward (allied health 7 [including occupational therapist, pharmacists, physiotherapist, psychologist, speech pathologist], nursing 10, medical 8) and palliative care (medical 2, nursing 1) staff participated. Interviews (n = 18) and focus groups (n = 2), were audio-recorded and transcribed verbatim. Data were analysed using an a priori framework of NPT constructs; coherence, cognitive participation, collective action and reflexive monitoring. Results: The CgDp afforded staff support, but the reality of the clinical process was invariably perceived as more complex than the guidelines suggested. The CgDp 'made sense' to nursing and medical staff, but, because allied health staff were not ward-based, they were not as engaged (coherence). Implementation was challenged by competing concerns in the acute setting where most patients required a different care approach (cognitive participation). The CgDp is designed to start when a patient is dying, yet staff found it difficult to diagnose dying. Staff were concerned that they lacked ready access to experts (collective action) to support this. Participants believed using CgDp improved patient care, but there was an absence of participation in real time monitoring or quality improvement activity. Conclusions: We propose a model, which addresses the risks and barriers identified, to guide implementation of end-of-life care tools in acute settings. The model promotes interprofessional and interdisciplinary working and learning strategies to develop capabilities for embedding end of life (EOL) care excellence whilst guided by experienced palliative care teams. Further research is needed to determine if this model can be prospectively applied to positively influence EOL practices.

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2. Surveys of Current Teaching and Practice for Impressions for Complete Dentures

Authors: Hussain N.; Jabbar H.; Hayati M.; Wu J.; Hyde T.P.

Source: The European journal of prosthodontics and restorative dentistry; May 2018; vol. 26 (no. 2); p. 86-93

Abstract: Background: There is an urgent need to improve current teaching and practice for impressions for complete dentures. This requires meeting the learning needs of all dental professionals to develop broader clinical expertise and bring about positive change. The UK experience with the Liverpool Care of the Dying Pathway (LCP), also demonstrates a greater focus on implementation processes and daily working practices is necessary. Methods: This qualitative study, informed by Normalisation Process Theory (NPT), investigates how a tool for end-of-life care was embedded in a large Australian teaching hospital. The study identified contextual barriers and facilitators captured in real time, as the 'Clinical Guidelines for Dying Patients' (CgDp) were implemented. A purposive sample of 28 acute ward (allied health 7 [including occupational therapist, pharmacists, physiotherapist, psychologist, speech pathologist], nursing 10, medical 8) and palliative care (medical 2, nursing 1) staff participated. Interviews (n = 18) and focus groups (n = 2), were audio-recorded and transcribed verbatim. Data were analysed using an a priori framework of NPT constructs; coherence, cognitive participation, collective action and reflexive monitoring. Results: The CgDp afforded staff support, but the reality of the clinical process was invariably perceived as more complex than the guidelines suggested. The CgDp 'made sense' to nursing and medical staff, but, because allied health staff were not ward-based, they were not as engaged (coherence). Implementation was challenged by competing concerns in the acute setting where most patients required a different care approach (cognitive participation). The CgDp is designed to start when a patient is dying, yet staff found it difficult to diagnose dying. Staff were concerned that they lacked ready access to experts (collective action) to support this. Participants believed using CgDp improved patient care, but there was an absence of participation in real time monitoring or quality improvement activity. Conclusions: We propose a model, which addresses the risks and barriers identified, to guide implementation of end-of-life care tools in acute settings. The model promotes interprofessional and interdisciplinary working and learning strategies to develop capabilities for embedding end of life (EOL) care excellence whilst guided by experienced palliative care teams. Further research is needed to determine if this model can be prospectively applied to positively influence EOL practices.

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Abstract

OBJECTIVES: The 3 objectives are to assess current preferences for impressions for complete dentures, audit practice and compare practice to current UK teaching.

METHODS: Three surveys where undertaken; a survey of GDPs preferences, an audit of practice and a survey of teaching in UK dental schools.

RESULTS: UK Universities advocate border moulded custom trays. In stated preferences, 99% of practitioners used custom trays for private practice; 67% for NHS work. In actual use, the audit found 91% practitioners in private practice used custom trays; in NHS practice 78% did so. The most widely taught materials were silicone (43%), alginate (29%), & zinc oxide eugenol paste (19%). In practitioners stated preferences, 97% of NHS and 53% of private dentists listed alginate as an option; however the audit showed only 74% (NHS) and 52% (private) actually used alginate, with 20% (NHS) and 48% (private) using silicone.

CONCLUSIONS: Definitive impressions in custom trays are used by GDPs for both private and NHS work; they are universally taught at UK dental schools. Alginate is popular in NHS practice; however, silicone is more widely taught in UK Universities. The use of silicone materials for definitive impressions has increased since 1999. In UK private practice silicone usage is aligned in popularity with alginate.

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3. Implementing early mobilisation in the intensive care unit: An integrative review

Authors
Phelan S.; Lin F.; Chaboyer W.; Mitchell M.

Source
International journal of nursing studies; Jan 2018; vol. 77; p. 91-105

Publication Date
Jan 2018

Publication Type(s)
Review

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Available at International journal of nursing studies from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Abstract

BACKGROUND: The intensive care unit provides complex care for critically ill patients. Consequently, due to the nature of critical illness and the therapies administered in intensive care, patients are often on prolonged periods of bed rest with limited mobility. It has been recognised that mobilising critically ill patients is beneficial to patients’ recovery, however implementing early mobility as a standard of care remains challenging in practice.

OBJECTIVES: To identify the key factors that underpin successful implementation and sustainability of early mobilisation in adult intensive care units.

DESIGN: Integrative Review.

DATA SOURCE: A systematic search strategy guided by SPICE framework (Setting, Perspective, Intervention, Comparison, Evaluation) was used to formulate the research question, identify study inclusion and exclusion criteria, and guide the database search strategy. Computerised databases were searched from August-September 2016.

Quality improvement articles that identified project implementation of early mobilisation of mechanically ventilated adult intensive care patients were included.

REVIEW METHODS: After screening the articles, extracting project data and completing summary tables, critical appraisal of the quality improvement projects was completed using the Quality Improvement Minimum Quality Criteria Set. A modified version of the Cochrane Effective Practice and Organisation of Care taxonomy was used to synthesise the multifaceted implementation strategies the projects utilised to help bring about changes in clinician behaviour.

RESULTS: Thirteen articles, reflecting 12 projects meeting the inclusion criteria were included in the final analysis. Eleven projects were conducted in the United States, and one in the United Kingdom. Quality scores ranged from 6 to 15. A formal framework to guide the quality improvement process was used in 9 projects. The three most frequently used groups of implementation strategies were educational meetings, clinical practice guidelines and tailored interventions. Managing the change process through strong leadership, designing strategies and interventions to overcome barriers to implementation, multidisciplinary team collaboration and data collection and feedback underpinned successful and sustainable early mobility practice change.

CONCLUSION: The use of a quality improvement appraisal tool can help identify high quality projects when planning a similar mobility program. Even though projects were conducted in a variety of intensive care unit settings, and implementation frameworks and strategies varied, all began with strong leadership commitment to early mobilisation. This along with using the quality improvement process and multidisciplinary team approach ensured success and sustainability of mobilising ventilated patients.

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4. An audit of clinical training exposure amongst junior doctors working in Trauma & Orthopaedic Surgery in 101 hospitals in the United Kingdom

Authors
Rashid M.S.

Source
BMC medical education; Jan 2018; vol. 18 (no. 1); p. 1

Publication Date
Jan 2018

Publication Type(s)
Article
5. Evaluating the implementation of a quality improvement process in General Practice using a realist evaluation framework

Abstract
Rationale, aims, and objectives: Underuse of anticoagulants in atrial fibrillation is known to increase the risk of stroke and is an international problem. The National Institute for Health Care and Excellence guidance CG180 seeks to reduce atrial fibrillation related strokes through prescriptions of Non-vitamin K antagonist Oral Anticoagulants. A quality improvement programme was established by the West of England Academic Health Science Network (West of England AHSN) to implement this guidance into General Practice. A realist evaluation identified whether the quality improvement programme worked, determining how and in what circumstances. Methods: Six General Practices in 1 region, became the case study sites. Quality improvement resources available were used variably, with the initial programme theory. Results: The quality improvement process. Observation and interview data were analysed and compared against the initial programme theory. Results: The employment of a quality improvement programme can deliver practice change and improvement legacy outcomes when particular mechanisms are employed and in contexts where there is a commitment to improve service.

6. A review of asthma care in 50 general practices in Bedfordshire, United Kingdom

Abstract
BACKGROUND: There are concerns regarding early years' training for junior doctors in Trauma & Orthopaedic Surgery (T&O) in the United Kingdom. Our primary objective was to audit the clinical activities undertaken by junior doctors working in Trauma & Orthopaedic (T&O) surgery in the National Health Service (NHS) in a typical workweek. A secondary objective was to audit the clinical exposure of junior surgeons in training to the Joint Committee on Surgical Training (JCST) standards for minimum weekly clinical exposure in T&O surgery. METHODS: We recruited collaborators in 101 T&O surgery departments in NHS hospitals to participate in this study. Clinical activity diaries from 935 doctors working in T&O surgery in the 101 participating NHS hospitals were involved. All junior doctors covering the junior on call tier were included. Collaborators collected clinical activity data from 08:00 18/01/2015 to 20:00 22/01/2015. Clinical activities recorded in sessions (morning, afternoon, evening) depending on what activity that doctor undertook for the majority of that session. Clinical activities were grouped into operating theatre/room, outpatient clinic, on call, "not in work" (i.e. leave, sickness), teaching, and ward cover sessions. The weekly clinical activity of Core Surgical Trainees (CSTs) were analyzed in accordance to two JCST standards for minimum weekly clinical exposure. RESULTS: Overall, junior doctors working in T&O surgery attended a theatre list session 8.5% of the time, an outpatient clinic 3.2%, were on call 14.8%, a teaching session 1.7%, providing ward cover 34.6%, and on a zero session 20.7% of the time. Only 5% of core surgical trainees (n=200) met both the JCST standards for minimum weekly clinical exposure in the specialty. CONCLUSIONS: Junior surgeons in training, working in Trauma & Orthopaedic surgery in the United Kingdom are not meeting the minimum weekly clinical sessions laid out by the JCST. Further work to develop models allowing for enhanced training experiences and improved clinical exposure to operating lists and outpatient clinics would be beneficial.
7. How useful are dose reference levels in radiotherapy? A regional treatment planning CT dose audit

**Authors**
McCallum H.; Pilling K.; Byrne J.; Lecomber A.; Chapple C.L.; Robson K.; Willis J.; Tulip R.; Taylor H.; Greenhalgh A.; Bayles H.

**Source**
Radiotherapy and Oncology; Apr 2018; vol. 127

**Publication Date**
Apr 2018

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**Abstract**
Purpose or Objective With the increasing use of imaging in radiotherapy processes, there is current interest in optimising radiotherapy imaging doses. Modern radiotherapy uses daily verification imaging as well as high-dose planning imaging such as 4DCT. The total imaging dose therefore has significantly increased with a resultant need to optimise all components in the therapy pathway. DRLs are routinely used in diagnostic radiology but their application in radiotherapy is less straightforward because the image quality requirements (and hence patient dose) can be influenced by other parts of the treatment pathway. Treatment planning for highly modulated therapy often requires CT scans with narrower slices. This results in a higher patient dose in order to maintain image quality. Conversely, the use of image fusion during outlining may allow CT scan image quality (and hence patient dose) to be reduced. This work has analysed dose received by patients during routine radiotherapy treatment planning CT acquisitions, for a range of treatment sites, at 3 regional radiotherapy centres in the UK. Material and Methods Radiotherapy planning CT scanners were surveyed in each of three regional centres. This comprised: Centre A - Philips Brilliance Big Bore, Centre B - Siemens Sensation Open, Centre C - Toshiba Aquilion Open. Doses were recorded for 20 patients in each centre and included the following treatment sites: Prostate, thorax, 4DCT thorax, breast, breast with SCF, head & neck and brain. Dose Length Product (DLP) and CT Dose Indexvol (CTDIvol) were calculated for each body site at each centre. Data has been collected on the use of MRI and PET in the therapy pathway and the complexity of planning to assess the influence of these on CT dose. Results Mean DLP, CTDIvol and effective dose have been analysed for each treatment site at each centre and the DLP comparison is shown in Figure 1. Figure 1: Mean dose length product for each treatment site and radiotherapy centre A significant difference in dose between different centres is evident but analysis shows no significant correlation between dose and treatment complexity. A noteworthy finding is that although all three centres use similar breast planning and treatment processes, there is a 45% difference in dose between the highest and lowest dose centre. Conclusion This study suggests that while there appear to be considerable differences in planning scan dose for nominally the same treatment site, these do not seem to be as a result of intentional optimisation measures. The need for optimisation of therapy planning CT protocols is clear and would require to be completed before the secondary influences of treatment complexity can be identified. Therefore, the use of dose reference levels is appropriate in radiotherapy as a tool for identifying significant, but potentially avoidable, differences in planning scan CT dose.
8. Does hyperlactaemia predict prognosis in cancer patients with sepsis? a retrospective review

**Authors**  Raby S.; Weaver J.; Cooksley T.

**Source**  Radiotherapy and Oncology; Apr 2018; vol. 127

**Publication Date**  Apr 2018

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Available at Radiotherapy and Oncology from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location]: British Library via UHL Libraries - please click link to request article.

**Abstract**

Purpose or Objective  In Emergency Oncology, fever and sepsis is a common presentation. Lactate as a marker of severity and prognosis in sepsis is widely established with even a mild elevation in lactate associated with increased mortality. Measurement of lactate has been incorporated into the recent NICE Sepsis guidelines 2016 as an indicator for risk stratification. However, the extent to which this is true in patients with malignancies is unknown as baseline lactate may be raised independently of sepsis. There is therefore doubt as to whether lactate is a useful diagnostic and prognostic marker. We sought to analyse if there was a trend between lactate level and mortality in a large UK cancer institute

Material and Methods  We conducted an audit of oncology patients with an episode of sepsis (neutropenic or non-neutropenic) during admission to a large tertiary referral oncology centre between September 2014 and September 2017. Patients with sepsis were identified on the basis of ICD-10 code. Venous or arterial Lactate levels were collected at time of diagnosis. Patients were divided into groups based on lactate level < 2mmolL\(^{-1}\), between 2mmolL\(^{-1}\) and 4 mmolL\(^{-1}\) or >= 4mmolL\(^{-1}\). Lactate levels were correlated to 7-day and 30-day mortality. Fishers exact test was used to compare mortality between groups. Results  There were a total of 389 individual patients with a single episode of sepsis between September 2014 and September 2017. 12 patients had a lactate >= 4mmolL\(^{-1}\), 72 patients had a lactate between 2mmolL\(^{-1}\) and 4 mmolL\(^{-1}\) and 305 patients had a lactate < 2mmolL\(^{-1}\). Mean lactate was 1.2 mmolL\(^{-1}\), 2.7 mmolL\(^{-1}\) and 6.3 mmolL\(^{-1}\) in each of the respective groups. Baseline characteristics were similar between study populations. Mortality at 7-days and 30 days significantly increased across groups (30 days; 15.3% versus 26.4% versus 66.7%, 7-day; 3.9% versus 12.5% versus 50.0%, admission lactate, < 2mmolL\(^{-1}\) versus between 2mmolL\(^{-1}\) and 4 mmolL\(^{-1}\) versus >= 4mmolL\(^{-1}\); p < 0.05 for all between group comparisons).

Conclusion  Hyperlactaemia appears to be a marker of poor prognosis in cancer patients presenting with sepsis. Further analysis of lactate measurement for risk stratification is required.

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9. Modelling the clinical impact of machine specific dose variations on outcome using national data

**Authors**  Bolt M.; Clark C.; Chen T.; Nisbet A.

**Source**  Radiotherapy and Oncology; Apr 2018; vol. 127

**Publication Date**  Apr 2018

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Available at Radiotherapy and Oncology from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location]: British Library via UHL Libraries - please click link to request article.
10. Evolution of a rapid onsite evaluation (ROSE) service for endobronchial ultrasound guided (EBUS) fine needle aspiration (FNA) cytology in a UK Hospital: A 7 year audit

Authors: Stevenson T.; Powari M.; Bowles C.

Source: Diagnostic Cytopathology; Aug 2018; vol. 46 (no. 8); p. 656-662

Abstract

Objective: Endobronchial ultrasound fine needle aspiration (EBUS FNA) is a well-established procedure for the diagnosis and staging of lung cancer. We review our provision of this service at the Royal Devon and Exeter NHS Foundation Trust and the role of rapid onsite evaluation (ROSE) with the increasing demand for molecular markers in this era of personalized medicine. Methods: A review of the changes in the Endoscopy clinic over the 7 years from the introduction of EBUS at the end of 2010 until 2017 was carried out. This included the availability of material obtained for diagnosis, accurate subtyping, and molecular testing. We also assessed the success of molecular genetics DNA techniques from EBUS material versus formalin fixed paraffin embedded tissue (FFPE). Results: A total of 1218 EBUS cases with ROSE were reported between 2011 and 2017. Percentage diagnostic rates were calculated as 83, 82, 84, 92, 93, 94, and 92 for 2011, 2012, 2013, 2014, 2015, 2016, and 2017, respectively. Availability of material for immunocytochemistry ranged from 86 to 100% over the 7 years. Molecular testing was successfully performed for EGFR in 89-100% of requested cases and ALK testing in 87-100% of requested cases. EBUS sourced material gave on average twice the amount of DNA and fewer amplicon repeats per patient compared to FFPE material. Conclusion: ROSE at EBUS FNA provides access to suitable material for molecular testing with increased yields in the form of needle washings for EGFR with FFPE materials for ALK and PDL1 testing.

11. Is anemia associated with cognitive impairment and delirium among older acute surgical patients?

Authors: Myint P.K.; Owen S.; Stechman M.J.; McCarthy K.; Pearce L.; Moug S.J.; Hewitt J.; Carter B.

Source: Geriatrics and Gerontology International; Jul 2018; vol. 18 (no. 7); p. 1025-1030

Abstract

Purpose or Objective: The accuracy of dose delivery during radiotherapy treatments depends upon a number of patient and equipment factors, including the current treatment machine calibration and output. Modern treatment techniques and improved image guidance reduce the variation in delivered dose due to planning and setup. A result of this is that control of treatment machine calibration is of greater significance in the overall delivery uncertainty. The impact of calibration errors and uncertainties in daily dose delivery on clinical outcomes in radiotherapy has been modelled using evidence based radiobiological models. Material and Methods: The dose variation introduced by 3D conformal planning and IMRT planning has been assessed through extraction of dose statistics from the PARSPORT head and neck trial [1]. A dataset containing >24,000 measurements of beam output from 204 UK radiotherapy treatment machines [2] was combined with a national dataset containing dosimetry audit measurements [3] to assess the potential dose variability for patients treated on individual machines, within a single centre or nationally. Radiobiological modelling was completed for prostate and head and neck cancers incorporating the daily dose variability. Results: IMRT planning techniques within PARSPORT not only reduced dose delivered to the OARs, but also the variation in dose to the PTV across the trial population. The D99 standard deviation reduced by around 2/3 to 3% when IMRT techniques were used whilst also increasing PTV coverage (fig 1). This is of the same magnitude as dose variations due to beam calibration. Radiobiological modelling predicts that variation in beam calibration and output introduces a 10% variation in predicted TCP (2 year survival) and 6% in NTCP (xerostomia) for patients in the PARSPORT trial. For prostate cancer this results in variations of TCP (bPFS) and NTCP (grade 1-2 proctitis) of 3% and 4% respectively. This variation is seen to be possible within a single treatment centre. Conclusion: Control of fundamental dosimetry within the radiotherapy chain remains highly significant even with modern treatment technologies. Variation in the control of beam calibration provides a potential source of uncertainty which could lead to measurably different outcomes for patients treated on different machines. Whilst fundamental dosimetry measurement has improved over time, the advances in treatment technology now mean that the impact of fundamental dosimetry is more significant than ever. As technology improves, the tolerances should also be reduced appropriately to best make use of these advances. This variation may have a direct effect both on small local trials as well as large scale clinical trials and should be included in their considerations of uncertainties. (Figure Presented).
12. Enhance quality care performance: Determination of the variables for establishing a common database in French paediatric critical care units

**Authors**
Recher M.; Bertrac C.; Guillot C.; Baudelet J.B.; Karaca-Altintas Y.; Leclerc F.; Leteurtre S.; Hubert H.; Devictor D.; Chevret L.; Javouhey E.; Vanel B.; Valla F.; Cambonie G.; Milesi C.; Liet J.-M.; Joram N.; Hubert P.; Dupic L.; Ozanne B.; Tiel O.; Daugé S.; Desprez P.; Chantreuil J.

**Source**
Journal of Evaluation in Clinical Practice; Aug 2018; vol. 24 (no. 4); p. 767-771

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Article

**Database**
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Available at Journal of evaluation in clinical practice from Wiley Online Library Medicine and Nursing Collection 2018 - NHS

Available at Journal of evaluation in clinical practice from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location]: British Library via UHL Libraries - please click link to request article.

**Abstract**
Selected variables for the French Paediatric Intensive Care registry. Rationale, aims, and objectives: Providing quality care requires follow-up in regard to clinical and economic activities. Over the past decade, medical databases and patient registries have expanded considerably, particularly in paediatric critical care medicine (eg, the Paediatric Intensive Care Audit Network (PICANet) in the UK, the Australian and New Zealand Paediatric Intensive Care (ANZPIC) Registry in Australia and New Zealand, and the Virtual Paediatric Intensive Care Unit Performance System (VPS) in the USA). Such a registry is not yet available in France. The aim of this study was to determine variables that ought to be included in a French paediatric critical care registry.

Methods: Variables, items, and subitems from 3 foreign registries and 2 French local databases were used. Items described each variable, and subitems described items. The Delphi method was used to evaluate and rate 65 variables, 90 items, and 17 subitems taking into account importance or relevance based on input from 28 French physicians affiliated with the French Paediatric Critical Care Group. Two ratings were used between January and May 2013. Results: Fifteen files from 10 paediatric intensive care units were included. Out of 65 potential variables, 48 (74%) were considered to be indispensable, 16 (25%) were considered to be optional, and 1 (2%) was considered to be irrelevant. Out of 90 potential items, 62 (69%) were considered to be relevant, 23 (26%) were considered to be of little relevance, and 5 (6%) were considered to be irrelevant. Out of 17 potential subitems, 9 (53%) were considered to be relevant, 6 (35%) were considered to be of little relevance, and 2 (12%) were considered to be irrelevant. Conclusions: The necessary variables that ought to be included in a French paediatric critical care registry were identified. The challenge now is to develop the French registry for paediatric intensive care units.

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13. Reducing emergency hospital admissions in England: The importance of the co-ordination of care at specialised neuromuscular services

Authors: Scalco R.; Nastasi L.; Jaffer F.; Quinlivan R.; Hanna M.
Source: European Journal of Neurology; Jun 2018; vol. 25; p. 340
Publication Date: Jun 2018
Publication Type(s): Conference Abstract
Database: EMBASE

Abstract: Background and aims: A 2 part project conducted over a 6-year period aimed to identify the reasons for preventable unplanned admissions in order to improve care and reduce emergency admissions in patients with neuromuscular diseases (NMDs) in the South-East England. Methods: Two NHS audits (retrospective case note studies) on unplanned admissions in patients with NMDs in the South-East of England were performed 5-years apart. Inclusion criteria were emergency admission codes and NMD diagnosis ICD-10 codes. Exclusion criteria were incomplete medical notes, elective admissions, absence of a NMD and obstetric admissions. Intervention: In between both audits, recommendations and a partnership approach project were developed to co-ordinated care and to prevent known NMDs complications in the analysed regions. Results: Audit 1 showed a substantial proportion of preventable admission in this patient population. Positive impacts of implemented changes included more referrals to specialised centres and more admissions under Neurosciences care (77% in 2014-2016, as compared to 14.9% in 2009-2011). Improvements also included a reduction in preventable admissions directly related to previously known NMDs (from 63% to 32.8%) and reduction in re-admissions (from 25.1% to 12.4%). Mortality rate dropped from 4.5% to 0.3%. Patients known to NMD specialised services had shorter hospital stay and fewer ITU admissions than patients who were not known to such services. Conclusion: Audit 1 suggested issues related to patients’ care contributed to the high frequency of unplanned admission in this patient population. Improvement in the provision of NMD services reduced emergency admissions and improved outcomes, which were successfully documented in Audit 2.

14. A service evaluation of patients attending A&E with seizures

Authors: Fernandopulle N.; Yogarajah M.
Source: European Journal of Neurology; Jun 2018; vol. 25; p. 295
Publication Date: Jun 2018
Publication Type(s): Conference Abstract
Database: EMBASE

Abstract: Background and aims: Epilepsy is the most common, chronic neurological condition with a prevalence of 0.5% and an incidence of 3 to 5%. Despite anticonvulsant use, there are approximately 60,000 A&E attendances and 40,000 hospital admissions in the UK per year. Over EU 15 billion is spent annually on treatment in Europe. Aims: To clinically characterise patients with seizures attending A&E and audit their management and follow-up with respect to NICE guidance and local hospital guidelines. Methods: Using A&E triage records a list of all patients attending St George’s Hospital in London with a seizure within a six month period was derived. By referring to clinical records, management in A&E and beyond was audited. Results: 382 adults with seizures were identified. 33% attended A&E in the previous 12 months with a seizure. Of those with epilepsy (n=187), 9% were on no drug. In all seizure cases, documentation was often incomplete and a collateral history was only obtained in 44% cases. 44% of patients were admitted, and of these, 15% were unnecessary according to criteria outlined by Iyer et al. Only 8% were asked if they were a driver, alcohol intake was not documented in 44% and illicit drug use was absent in 57%. Only 37% were asked to a neurologist or epilepsy specialist. Conclusion: As a third of the patients attended A&E in the previous 12 months, it is clear that thorough history taking to determine factors provoking seizures and better management in the community is necessary to prevent recurrence of seizures.

15. Homeless mortality data from East London

Authors: Hassannally K.; Asaria M.
Source: London Journal of Primary Care; Jul 2018; vol. 10 (no. 4); p. 99-102
Publication Date: Jul 2018
Publication Type(s): Article
Database: EMBASE

Abstract: Homeless mortality data from East London

Available at London journal of primary care from Europe PubMed Central - Open Access
Available at London journal of primary care from PubMed Central
Available at London journal of primary care from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.
Abstract

Background: The rate of homeless mortality is known to be significantly below the national average, with mortality rates varying geographically. This study aims to look at the rates and causes of homeless mortality within East London. Question: To characterise homeless mortality of patients registered in two specialist homeless practices, between 2001 and 2016 in the London boroughs of Tower Hamlets and Hackney, by age at death and cause of death. Study Design: A retrospective study of general practice electronic patient records. Methods: Electronic patient records across two general practice surgeries specialising in care for the homeless in East London were examined and their mortality data extracted. Results: Two hundred and three deaths recorded in the two general practice surgeries were examined. The average age at death was 47 years, with the highest numbers of deaths being attributed to substance misuse, liver disease and cardiac-related deaths. Those dying of cardiac-related causes died at an average of 51, those dying of liver-related causes died at an average age of 49 years and those dying from substance misuse died at an average age of 38. Conclusions: Those dying of substance misuse-related causes died much younger than the average homeless patient did.

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16. Cohort profile: Genetics of Diabetes Audit and Research in Tayside Scotland (GoDARTS)

Authors
Hebert H.L.; Veluchamy A.; Meng W.; Colhoun H.M.; Smith B.H.; Shepherd B.; Carr F.; Donnelly L.A.; Tavendale R.; Leese G.; Dow E.; Donley A.S.; Lang C.C.; Pearson E.R.; Palmer C.N.A.; Milburn K.; Morris A.D.

Source
International Journal of Epidemiology; Apr 2018; vol. 47 (no. 2); p. 380

Publication Date
Apr 2018

Publication Type(s)
Article

Database
EMBASE
Available at International journal of epidemiology from PubMed Central

Abstract

Background: With increased delayed discharges from acute NHS hospitals, especially for older patients, solutions like the 'Discharge to Assess' (D2A) scheme aim to facilitate quicker discharge and improve experiences for patients and carers. Setting: This report examines the quality process from the patient perspective of the D2A scheme implemented in a London Northwest Healthcare NHS Trust (LNWHT). A retrospective audit was conducted using the first cohort of patients discharged through this pilot scheme from April to July 2017. Question: A brief study to explore patient views of their experience of the D2A scheme. Methods: An opportunistic audit comprised of brief telephone interviews with patients following discharge from hospital through the D2A scheme. Results: 30 patients who had been discharged with the D2A scheme, agreed to participate. Overall, patients were positive about their experience and valued the support and services provided. However, there were concerns on the issue of communication. The scheme effectiveness from the patient's perspective improved over the duration of the evaluation. Discussion: Patients' views about their experiences changed over time, which included patients' perceptions of the discharge process, patients' expectations and the way in which they were able to access services.

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17. Improving outcomes for patients discharged early using a home assessment scheme

Authors
Meehan L.; Banarsee R.; Dunn-Toroosian V.; Tejani S.; Yazdi A.

Source
London Journal of Primary Care; May 2018; vol. 10 (no. 3); p. 62-67

Publication Date
May 2018

Publication Type(s)
Article

Database
EMBASE
Available at London journal of primary care from Europe PubMed Central - Open Access

Abstract

Background: With increased delayed discharges from acute NHS hospitals, especially for older patients, solutions like the 'Discharge to Assess' (D2A) scheme aim to facilitate quicker discharge and improve experiences for patients and carers. Setting: This report examines the quality process from the patient perspective of the D2A scheme implemented in a London Northwest Healthcare NHS Trust (LNWHT). A retrospective audit was conducted using the first cohort of patients discharged through this pilot scheme from April to July 2017. Question: A brief study to explore patient views of their experience of the D2A scheme. Methods: An opportunistic audit comprised of brief telephone interviews with patients following discharge from hospital through the D2A scheme. Results: 30 patients who had been discharged with the D2A scheme, agreed to participate. Overall, patients were positive about their experience and valued the support and services provided. However, there were concerns on the issue of communication. The scheme effectiveness from the patient's perspective improved over the duration of the evaluation. Discussion: Patients' views about their experiences changed over time, which included patients' perceptions of the discharge process, patients' expectations and the way in which they were able to access services.

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Abstract

Background: International guidelines for the management of acute pancreatitis state that antibiotics should only be used to treat infectious complications. Antibiotic prophylaxis is not recommended. The aim of this study was to analyse antibiotic use, and its appropriateness, from a national review of acute pancreatitis. Methods: Data were collected from The National Confidential Enquiry into Patient Outcome and Death (NCEPOD) study into the management of acute pancreatitis. Adult patients admitted to hospitals in England and Wales between January and June 2014 with a coded diagnosis of acute pancreatitis were included. Clinical and organisational questionnaires were used to collect data and these submissions subjected to peer review. Antibiotic use, including indication and duration were analysed. Results: 439/712 (62%) patients received antibiotics, with 891 separate prescriptions and 23 clinical indications. A maximum of three courses of antibiotics were prescribed, with 41% (290/712) of patients receiving a second course and 24% (174/712) a third course. For the first antibiotic prescription, the most common indication was "unspecified" (85/439). The most common indication for the second course was sepsis (54/290), "unspecified" was the most common indication for the third course (50/174). In 72/374 (19.38%) the indication was deemed inappropriate by the clinicians and in 72/393 (18.3%) by case reviewers. Conclusions: Inappropriate use of antibiotics in acute pancreatitis is common. Healthcare providers should ensure that antimicrobial policies are in place as part of an antimicrobial stewardship process. This should include specific guidance on their use and these policies must be accessible, adherence audited and frequently reviewed. Copyright © 2018 The Author(s).

19. Intraoperative oxygenation in adult patients undergoing surgery (iOPS): A retrospective observational study across 29 UK hospitals

Authors


Source

Perioperative Medicine; Jul 2018; vol. 7 (no. 1)

Publication Type(s)

Article

Database

EMBASE

Abstract

Background: Considerable controversy remains about how much oxygen patients should receive during surgery. The 2016 World Health Organization (WHO) guidelines recommend that intubated patients receive a fractional inspired oxygen concentration (FiO2) of 0.8 throughout abdominal surgery to reduce the risk of surgical site infection. However, this recommendation has been widely criticised by anaesthetists and evidence from other clinical contexts has suggested that giving a high concentration of oxygen might worsen patient outcomes. This retrospective multi-centre observational study aimed to ascertain intraoperative oxygen administration practice by anaesthetists across parts of the UK. Methods: Patients undergoing general anaesthesia with an arterial catheter in situ across hospitals affiliated with two anaesthetic trainee audit providers should ensure that antimicrobial policies are in place as part of an antimicrobial stewardship process.

Background: Intensive care units (ICUs) continue to be overusing antibiotics, with patients receiving inappropriately high doses of antibiotics. This study aimed to describe antibiotic use among adult patients admitted to intensive care units in the United Kingdom and to determine whether the use of antibiotics is consistent with recommendations. Methods: Data were collected for patients admitted to the intensive care unit at two hospitals in London, UK, between July 2015 and August 2016. We used hospital charts and electronic prescribing systems to collect data on all antibiotic prescriptions for patients admitted to the intensive care unit during this period. Results: A total of 1201 patients were admitted to the intensive care unit during the study period, of whom 351 were included in the analysis. A total of 1222 antibiotic courses were prescribed to these patients, of which 778 were for at least 48 hours duration. The most common indication for antibiotic prescription was infection (589/1222), followed by respiratory disease (237/1222). The most common antibiotic prescribed was piperacillin/tazobactam (169/1222), followed by amoxicillin (138/1222). The overall duration of antibiotic use was 13.2 days, with a median duration of 6 days. Conclusions: The findings from this study indicate that the use of antibiotics in intensive care units is inconsistent with published guidelines and may be contributing to the development of antibiotic resistance. Future studies should focus on identifying the factors that drive antibiotic use in intensive care units and developing strategies to improve antibiotic stewardship.
Abstract

Introduction: Critical care units in hospitals throughout the UK are experiencing an increase in demand, with no real increase in capacity. They are being forced to run above the recommended level of capacity, resulting in delayed admissions of critically ill patients to the critical care unit, both from the resuscitation area in the emergency department (ED resus) and other areas of the hospital. Prompt discharges of patients from critical care would help free up beds for the sickest patients requiring the right care at the right time. Delayed transfers of care (DTOCs) are an ongoing national issue. This audit focuses on length of admission to, and discharge time from, critical care in Royal Gwent Hospital (RGH), Newport, UK. This encompasses the intensive care unit and high dependency unit. Method: Over a period of 5 months, January 1, 2017 to May 31, 2017, data on critical care delayed admissions (from non-theatre settings) and delayed discharges were collected using the Intensive Care National Audit & Research Centre (ICNARC) database, WardWatcher and scanned handwritten in-patient notes from electronic hospital records (eNotes). Results: During this 5-month period, a total of 112 patients were admitted to the unit from non-theatre hospital settings, with available eNotes. Seventy one % of these sick patients waited longer than 1 hour; usually considered an acceptable maximum time for admission to critical care. The patients from ED resus had a 72% chance of a delayed admission longer than 1 hour. The overall length of delay in admissions from ED resus stood at 2 hours 18 minutes on average. A total of 401 patients were discharged alive from critical care during the same period. 63% waited longer than the national guideline that states within 4 hours. Conclusion: This audit showed that delayed admissions to critical care occur commonly in the RGH, including from ED resus, which has a limited number of bays. Delayed transfers from critical care are also very common, and much higher than government targets. This affects patient flow through critical care, as well as possibly impacting on patient outcomes and rehabilitation. Lastly, both delayed admissions and discharges result in significant wastage of NHS resources.

21. A retrospective audit of post cardiac arrest temperature management in a DGH Intensive Care Unit (ICU)

Abstract

Introduction: Neurological outcomes following cardiac arrest (CA) have consistently demonstrated improvement with control of hyperthermia. Although the optimum temperature and duration of control remains unclear, the International Liaison Committee on Resuscitation recommend targeted temperature management for at least 24 hours in all patients after return of spontaneous cardiac output1. As part of a review of our post-cardiac arrest management, we audited the temperature management of patients admitted to our Intensive Care Unit. Methods: Data for all cardiac arrests was collected retrospectively for a two-year period from April 2015 until June 2017. All information was taken from the ICIP clinical information system (Philips Healthcare, Guildford, UK) and the hospital's computerised record systems (SemaHelix, Atos, Bezons, France and Evolve, Kainos, Belfast, UK). Data was analysed using Microsoft Excel (Microsoft Corporation, Redmond, USA). Results: We identified 89 patients admitted following cardiac arrest, with a mean (SD) age of 65 (15) years. 55 (62%) patients were male and just under half were admitted following an out of hospital cardiac arrest (OOHCA) 44 (49%). 32 (36%) patients survived to hospital discharge. Two-thirds of survivors were admitted following an in-hospital cardiac arrest. Non-shockable rhythms occurred most frequently as the presenting rhythm (57, 64%). These patients had poorer outcomes when compared with those presenting with shockable rhythms. Temperature measurements recorded during the first three days of admission showed that targeted temperature control was only achieved in half of patients. The average time in the target temperature range varied between 50.5%-80.2%. Targeted temperatures were most consistently adhered to during the second day of admission. Of note the lowest daily temperatures were seen in the non-survivors group. Conclusions: Although the rate of survival to hospital discharge in patients admitted to our ICU reflects national data, our audit highlighted considerable room for improvement in the attainment and maintenance of targeted temperature control. It also identified scope to formalise a unit protocol to standardise temperature monitoring and the equipment used to facilitate these specified temperature ranges post arrest.
22. Are we failing patients with acute kidney injury?

Authors: Hardy P.; Hill T.
Source: Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 89
Date: May 2018
Type(s): Conference Abstract
Database(s): EMBASE

Abstract: Acute Kidney injury (AKI) is defined as a rapid deterioration in renal function with an increase in serum creatinine >=26 micromols/L, >=50% rise in serum creatinine from baseline or >6 hours of reduced urine output (<0.5 ml/kg/hour). It is associated with increased patient mortality and costs the NHS more than 500 million/year. The NCEPOD study in 2009 found that 17% of AKI complications were avoidable with adequate investigation and regular monitoring. East & North Herts NHS trust issued AKI assessment and management guidelines in 2015 suggesting initial blood tests to include FBC, U&E, LFT, CRP, HCO3-, Ca, PO4- & lactate and daily U&E monitoring until the AKI had resolved. We audited 487 patients flagged as having an AKI on BIMS/EPR during their admission in the month of March. All patients admitted for less than 24 hours, those with an eGFR <10 and patients without a true AKI after blood result analysis were excluded from our study leaving a total of 110 patients. Our results showed that of 110 patients included in our study 0% had all the recommended blood tests, 95.5% of patients were missing a lactate level, 91.8% of patients did not have a bicarbonate and only 55.5% of patients had daily U&E’s. Limitations of the study include the absence of ABG results which do not appear on the online systems which may include lactate and bicarbonate.

Recommendations for future practice include junior doctor education and the inclusion of an ‘AKI’ button on blood ordering software ICE which will automatically request all the bloods advised in the trust guideline.

23. Are we too relaxed with Targeted Temperature Management in out of hospital cardiac arrest patient?

Authors: Yao Z.; Madhok A.; Foex B.
Source: Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 154-155
Date: May 2018
Type(s): Conference Abstract
Database(s): EMBASE

Abstract: Background: In the UK, emergency medical services attend around 28000 out of hospital cardiac arrests (OOHCA). Targeted Temperature Management (TTM) improves outcome in patients with cardiac origin of OOHCA. This audit evaluated whether OOHCA patients admitted to the Intensive Care Unit (ICU) had correct TTM. Methodology: Data of patients admitted with OOHCA were collected retrospectively between January 2016 and March 2017. Patient’s demographics, time of return of spontaneous circulation (ROSC), causes of cardiac arrest, cardiovascular intervention, first 24 hour temperatures management and 12 months outcomes were collected. Patients with presumed cardiac origin of OOHCA, ROSC <60mins, intubated and ventilated are deemed suitable for TTM. Result: A total of 43 (21 male, 12 female) OOHCA patients were included. 74% (N=32) of OOHCA patients were of cardiac origin and 26% (N=11) were due to other causes. The average age was 60 years (Range 20-81). 62% (N=27) patients had downtime <15 minutes, 28% (N=12) patients had downtime between 15-60 minutes and 9% (N=4; cardiac=2 and non-cardiac=2) patients had downtime >60 minutes. After exclusion criteria, 29 patients were found to meet the criteria for TTM. The exclusions included non-cardiac origin of OOHCA (N=11), ROSC>60 min (N=2), and un-witnessed asystole (N=1). In the inclusion group, 31% (N=9) of patients had their temperature kept <36 C. In 69% (N=20) their temperature exceeded 36C at least once during the initial 24 hours. Patients kept <36 had better outcomes: full recovery (78% versus 55%) and lower rate of hypoxic encephalopathy (0% versus 25%) when compared to the non-compliant group. The characteristics of age, ROSC time and cardiovascular intervention were similar between both groups. In the non-cardiac origin OOHCA (N=11) group patients had a higher rate of death (64% VS 21%) when compared to the cardiac origin OOHCA group. The non-cardiac causes included drug toxicity (N=2), food aspiration (N=3), pulmonary embolism (N=1), cerebral vascular disease (N=1), infective endocarditis (N=1), sepsis (N=2) and anaemia (N=1). Conclusion: Our study suggests that a cardiac origin of OOHCA is associated with better outcome compared to non-cardiac origin. Patients managed according to the TTM protocol had improved outcome, which is consistent with the literature. Sub-optimal compliance with TTM was largely due to late application of cooling methods. TTM education and a new protocol have been developed to start cooling measures once central temperature rises above 35 C.

24. Improving transfer safety for critically ill patients at Kings College Hospital, London

Authors: Jesty R.; Devlin A.; Townsend J.; Davies B.
25. Transfer of ventilated critically ill patients by advanced critical care practitioners

**Authors**
Denton G.; Arora N.; Choyce A.; Jones A.

**Source**
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 60

**Publication Type(s)**
Conference Abstract

**Database**
EMBASE

**Abstract**
Introduction: The Heart of England Foundation Trust has one of the largest teams of advanced critical care practitioners (ACCP) in the United Kingdom (UK). The critical care service operates across three hospitals. Both intra- and inter-hospital transfers are generally performed by ACCPs in transferring critically ill patients. This audit records the type of transfer and associated adverse events of transfers undertaken by ACCPs in the trust. Methods: A web based anonymised electronic form was devised. Data were submitted shortly after transfer of mechanically ventilated critical care patients. All internal and external transfers by ACCPs were recorded. Results: Between December 2016 and July 2017, 195 transfers of critically ill patients were recorded. Most were independent transfers by ACCPs (n=177, 90.8%), patients requiring invasive mechanical ventilation comprised 79.5% of cases (n=155). Of these 155 transfers, 32.9% (n=51) were inter-hospital transfers. Imaging was the most common reason for intra-hospital transfer (n=82, 78.8%). Tertiary centre transfers, mainly for neuro-surgical intervention, comprised 29.4% (n=15) of inter-hospital transfers. In 91.6% (n=142) of transfers of patients requiring invasive mechanical ventilation, no adverse events were reported. Hypotension was the most frequently recorded adverse event (n=6, 3.9%). There were no extubations or airway events during the audit period. Discussion: ACCPs in our service meet the Intensive Care Society training guidelines of staff performing transfers for Level 3 patients. The ACCP service uses dedicated transfer trolleys and secure equipment. It is our policy that there is period of stabilisation of patients prior to transfer. Fanara reviewed the transportation literature and identified a range between 4-9% for serious adverse events during transfer of critically ill patients.1 One UK audit found that only 34% of doctors had training in critical care transfers compared to 100% of ACCPs in this study.2 Conclusions: A service by ACCPs of the transfer of critically ill patients, which adheres to Intensive Care Society transfer guidelines, recorded few adverse events, compared to limited published literature.

26. Antimicrobial resistant isolates from patients who require emergency laparotomy-an urgent need to standardise practice

**Authors**
Fadden E.; Hettiarachchi N.; Misra N.; Morton B.; Mason J.

**Source**
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 85-86

**Publication Date**
May 2018

**Publication Type(s)**
Conference Abstract

**Database**
EMBASE

**Abstract**
Intra-hospital transfers (eg to CT/MRI/angiography suite) for Level 2 and Level 3 inpatients on critical care units at Kings are carried out by airway trained doctors and accompanied by nursing staff. Currently no pre-transfer checklist exists and we felt that developing such a checklist could improve the safety of the transfers by ensuring staff can be confident that equipment and medication required to make the transfer is available if required. There was also no clear system for how regularly, and by whom, the contents of the transfer bag were checked and it was carried out on an ad hoc basis. We surveyed 33 members of the medical and nursing staff working across critical care units and Kings College Hospital to evaluate whether they felt the safety of transfers could be improved. 73% of those surveyed were not aware of how often the transfer bags were checked, only 49% stated that if equipment was needed quickly it would be easy to find with the other 51% describing it as ‘difficult’ or ‘very difficult’ and 97% of those surveyed stated they thought a checklist to go through prior to each transfer would improve the safety of the transfers. A snapshot inspection of a number of the transfer bags found there to be no checking system in place with some expired items. The issue surrounding checking of the transfer bags has been rectified immediately with regular checks introduced. We have developed a short checklist to be filled out prior to intra-hospital transfers so that staff do not work regularly together or are new to the trust can be confident that all essential equipment and drugs are in-date, available and have knowledge of their whereabouts if required in an emergency. The checklist will be implemented shortly and it’s use will be re-audited in the coming months.
27. Improving Medical/Surgical Emergency Team (MET/SET) call effectiveness: How can we improve decision making, documentation and communication between teams?

Authors
Long C.; Crabtree S.; Murray K.

Source
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 119-120

Abstract
Medical Emergency Team (MET) and Surgical Emergency Team (SET) calls have been used in both District General Hospitals of an acute NHS trust to alert the relevant teams of a deteriorating patient in order to initiate prompt assessment and treatment, escalation of care where necessary or decisions regarding appropriate ceilings of care. The Surgical or Medical registrar is required to attend, as well as the Critical Care Outreach Nurse and the Anaesthetic Registrar or Senior House Officer covering Intensive Care. Although these calls are put out regularly, there have been inconsistencies noted in the team members attending, documentation reordered by each relevant team, and at times, a lack of clear evidence regarding decisions surrounding appropriate escalation plans. We conducted a prospective audit over a one month period, with data from 85 MET & SET calls being collected using a pro forma completed by the attending Critical Care Outreach Nurse. This allowed us to identify which team members attended, whether medical assessments, critical care opinions and escalation plans were clearly documented and whether “Not for Resuscitation” forms were considered or completed if it was agreed that CPR would not be appropriate. Data was collated using Microsoft Excel. MET & SET calls were well attended by Critical Care Outreach, with an Outreach nurse present at 99% of calls. 93% were attended by a medical or surgical registrar and 85% of all calls were attended by an anaesthetist.

Documentation was variable: medical assessments were documented for 86% of calls, whereas critical care opinions were only documented at 67% of all MET & SET calls. Escalation plans were either unclear or not documented at 35% of all calls. This is clearly an area important to address, both in terms of optimal patient care and also for improving communication with ward teams regarding those patients for whom escalation to critical care would be appropriate, and under which circumstances, or indeed where discussion about resuscitation status should be considered. We propose a simple intervention to improve documentation at MET/SET calls in the form of a distinctive yellow pro forma on an A5 sized sticker that can be placed in patient notes. This serves as a prompt for MET/SET members to document clear decisions regarding appropriate escalation plans for that patient. It also provides clear communication to the patient’s responsible medical/surgical team that there has been a clinical deterioration, especially if occurring out of hours.
29. On The Right Trach Yet? The SouthWest of England multicentre tracheostomy service audit

**Authors**
Skorko A.; Shah S.; Goss R.; Innes R.; Newell C.

**Source**
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 147-148

**Publication Date**
May 2018

**Publication Type(s)**
Conference Abstract

**Database**
EMBASE

**Abstract**
Introduction: The use of temporary tracheostomies is commonplace on intensive care units. However, this is not a risk-free procedure. Following the findings of NAP4, in 2014 NCEPOD published ‘On The Right Trach’ recommendations aiming to improve safety. Methods: A six week, trainee-led quality improvement project assessing tracheostomy insertion and care was carried out on 12 (out of 14) ICUs within the South West of England, auditing practice against the NCEPOD recommendations. Results: Of patients admitted to ICU during the audit period, 10% (93/925) underwent tracheostomy insertion, after a median stay of nine days and remained in situ for a median of 10 days. 75% (70/93) were inserted percutaneously, ranging from 30% to 100% by unit. A WHO-style checklist was used in 54% (38/70) of percutaneous insertions, a consent form in 67% (47/70), and bronchoscopy in 96% (67/70) insertions. Checklists were used consistently at four units and consent forms at eight. Following a tracheostomy; 57% (50/88) of patients were decannulated on ICU, 33% (29/88) discharged with a tracheostomy and 10% (9/88) died on ICU. 4/9 having withdrawal of life sustaining therapy. No deaths were tracheostomy related. Immediate complications occurred following 23% (21/93) of insertions, most commonly minor bleeding (62%, 13/21). Rates of complications varied by unit, from 0% to 62.5%. A tracheostomy-related complication occurred in 32% (30/93) of patients at some point during the ICU stay. 19% (18/93) of tracheostomies needed changing at some stage and 50% (9/18) of these were unplanned. For all these findings, variation by unit was wide. From a governance perspective, all units had a difficult airway trolley and immediate access to video laryngoscopy. Of 12 units, three did not have a training programme or core competencies for tracheostomy care laid out, as recommended by NCEPOD. Two do not have a protocol for the management of displaced/dislodged tracheostomies. Conclusion: In the South West of England, we found wide variation in practice around the insertion and ongoing care of patients who have a tracheostomy inserted on ICU. Complication rates were surprisingly high and varied by unit. We will address the findings of this audit by undertaking a regional study day to understand how quality of care can be improved. This project will be repeated nationally to see if the degrees of variation and complications are prevalent in other regions and if so, how these may be mitigated.
30. Audit of hospital-wide Outreach response to automated VitalPACTM alerts from chest medical versus cardiology and surgical patients in a UK cardiothoracic hospital

Authors: Blaskovics I.; Lonsdale J.; Machiwenyika J.; Clayton J.; Salaunkey K.; Mackay J.
Source: Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 117
Publication Date: May 2018
Publication Type(s): Conference Abstract
Database: EMBASE

Abstract: Background: Electronic observation charts and early warning scoring (EWS) were introduced to Papworth Hospital in 2013. Papworth has two geographically distinct groups of wards; Surgical and cardiology patients at the 'acute end' of the hospital and patients with chronic chest disease in the Chest Medical Unit (CMU). Outreach received automated alerts via VitalPACTM DoctorTM for high-risk (EWS=4) and critical risk (EWS>=5) from 2015. Although CMU accounted for <10% of cardiorespiratory arrests and unscheduled ICU admissions, they generated >50% of automated alerts to Outreach raising concern that care was being diverted from the acutely unwell to chronically sick. Aim of Audit: Compare response to automatic alerts from CMU vs 'Cardiology & Surgery' wards. Methods: Detailed analysis of case notes and vitalPAC log by ICU Clinical Fellow and Practice Development Lead - both independent of Outreach team - to evaluate outcome of automatic iPod alerts triggered by high or critical-risk EWS. Study population 30 'chest medical' and 30 'surgical or cardiology' patients. Entry Criteria: Two scores of >=4 at least one hour apart - to exclude transient self-limiting problems or inaccurate scores due to incorrect data entry (fat fingers). Patient Selection: Patients randomly selected by audit department during study period June to November 2015. Exclusions: ICU, HDU and Day Wards. Results: Conclusions: There was almost a ten-fold difference in automated alerts per ICU admission between groups. Our CMU ratio of 189 is very similar to the previously published 220 Outreach calls per ICU admission from chest medicine at Broad Green, Liverpool. There is consensus that standard EWS is too sensitive in chronic respiratory patients. Automated alerts from CMU have been suspended pending introduction of a less sensitive Chronic Respiratory Early Warning Score (CREWS). In the interim, ward nurses phone Outreach when there is any cause for concern.

31. A prospective audit of the working locations of registrars covering the adult intensive care unit (ICU) in a tertiary referral NHS hospital

Authors: Malycha J.; Murphy D.; Young D.; Watkinson P.; Barker G.; Ludbrook G.
Source: Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 21
Publication Date: May 2018
Publication Type(s): Conference Abstract
Database: EMBASE

Abstract: Introduction and Background: The UK multi-agency Guidelines for the Provision of Intensive Care Services recommend deteriorating hospital ward patients should receive care from trained critical care outreach personnel. In most NHS hospitals, this involves a team of specialist clinicians led by an experienced ICU registrar. This involves work away from the ICU itself (off-unit work). Current guidelines stipulate that NHS hospitals must have appropriate ICU staffing to ensure safe on-unit and off-unit patient care. However, the amount and proportions of this work are not described in the literature. This audit quantified the on-unit and off-unit movements of ICU registrars within a tertiary NHS hospital. Methods: Real-time Location Devices (RTLDs) are portable devices which communicate with WiFi network access points to determine their position and log the information to a database. This audit used T2 tags made by Aeroscout Enterprise Visibility Solutions (Stanley Healthcare, Swindon). The tags are small (35 grams), have a long battery life and provide a location update every 5 minutes. They were attached to 2 ICU 'baton' pagers (pagers passed on at handover between shifts) carried by senior and junior adult ICU registrars respectively. These pagers were linked to the current hospital Rapid Response System (RRS) and non-urgent referral system. The audit population was adult ICU registrars working in the John Radcliffe Hospital. Data were collected from April through July 2017. Results: ICU registrars at the John Radcliffe Hospital spend 84.4% of their time in ICU, 8.2% in the Emergency Department (ED) and 7.4% in places within the hospital ‘other than ICU and ED’. During night shifts (9pm - 8:30am) time in ICU drops to 81.7% with time in ED increasing to 9.2%. Discussion: Provision of Intensive Care Medicine in NHS hospitals increasingly involves ‘off-unit’ activity. This activity is important but time consuming and hence expensive. By quantifying this activity, informed decisions about staffing and expected workload can be made, especially for night shifts. This in turn should improve patient safety and staffing efficiency. The RTLDs provide a simple means to quantify time worked at different locations in a hospital.

32. Reduction in Phlebotomy Related Blood Loss in Critical Care: A quality improvement initiative
### 32. Habitual intensive care unit phlebotomy practices and the impact on patient outcomes

**Authors:** Caddell P.; St Ledger U.; Watts V.; Scappaticci A.; Coogan T.; McCartney A.; Turner G.; Donaghy D.

**Source:** Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 114-115

**Publication Date:** May 2018

**Publication Type(s):** Conference Abstract

**Database:** EMBASE

**Abstract:**

Background: Habitual intensive care unit (ICU) phlebotomy practices have been reported to lead to iatrogenic patient anaemia and corrective blood transfusions. Transfusions are associated with negative patient outcomes. With a multidisciplinary quality improvement lens we sought to investigate opportunities to permanently reduce the volume of blood loss from arterial line sampling by 30%.

Methods: Adopting improvement methodologies this project conducted in the 25 bedded regional ICU (RICU) in Northern Ireland (NI) from October 2016- July 2017 had several phases: (1) Pre-implementation fact finding - data from staff questionnaires (44) observations of practice (10) and test frequency analysis, established current practices and variations (table 1). This concentrated efforts on reducing the volume of blood drawn per patient per day for arterial blood gas (ABG), full blood count (FBC) and urea and electrolyte (U&E) sampling and on reducing variation of the presample waste volume and ABG volume (table 1); (2) Implementation of pre-heparinised low volume ABG syringes and a volume specific (2.5 ml waste and 0.5 ml sample) standardised operating protocol; (3) Implementation of small sample bottles for FBC (2 ml) and U&E (3 ml). Improvements were supported by a staff awareness programme and instruction posters; (4) Postimplementation staff feedback questionnaires.

Results: An overall 36.7% (16.14 ml) average reduction in volume of blood sampled collectively for ABG, FBC and U&E per patient per day was achieved post-implementation (reduction of 51.7% (13.49 ml) if pre-sample waste data is excluded). The standardised approach eliminated variation in practice. Improvements included reduced risks to patients and staff and reduced loss of analyser cartridges from implementation of pre-heparinised syringes. Staff perceived the new system safe and easy to use. Conclusions: The saved volume is equivalent to one unit of blood every 20 days. Next steps include extending the new protocol and shared learning to other ICUs and clinical areas in our healthcare Trust and to the NI Critical Care Network. We will explore arterial line systems that eliminate dead space volume, investigate improvements in rationale based decision-making for ABG sampling, and improve engagement with electronic ordering systems. This project is part of a larger Trust Plebotomy Reduction Project.

### 33. Improving antibiotic administration in Sepsis at Weston General Hospital using a Patient Group Directive (PGD): A Quality Improvement Project

**Authors:** Peters J.; Crofton H.; Crossley D.; Kumar A.; Dudley C.

**Source:** Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 108-109

**Publication Date:** May 2018

**Publication Type(s):** Conference Abstract

**Database:** EMBASE

**Abstract:**

Background: Habitual intensive care unit phlebotomy practices have been reported to lead to iatrogenic patient anaemia and corrective blood transfusions. Transfusions are associated with negative patient outcomes. With a multidisciplinary quality improvement lens we sought to investigate opportunities to permanently reduce the volume of blood loss from arterial line sampling by 30%.

Methods: Adopting improvement methodologies this project conducted in the 25 bedded regional ICU (RICU) in Northern Ireland (NI) from October 2016- July 2017 had several phases: (1) Pre-implementation fact finding - data from staff questionnaires (44) observations of practice (10) and test frequency analysis, established current practices and variations (table 1). This concentrated efforts on reducing the volume of blood drawn per patient per day for arterial blood gas (ABG), full blood count (FBC) and urea and electrolyte (U&E) sampling and on reducing variation of the presample waste volume and ABG volume (table 1); (2) Implementation of pre-heparinised low volume ABG syringes and a volume specific (2.5 ml waste and 0.5 ml sample) standardised operating protocol; (3) Implementation of small sample bottles for FBC (2 ml) and U&E (3 ml). Improvements were supported by a staff awareness programme and instruction posters; (4) Postimplementation staff feedback questionnaires.

Results: An overall 36.7% (16.14 ml) average reduction in volume of blood sampled collectively for ABG, FBC and U&E per patient per day was achieved post-implementation (reduction of 51.7% (13.49 ml) if pre-sample waste data is excluded). The standardised approach eliminated variation in practice. Improvements included reduced risks to patients and staff and reduced loss of analyser cartridges from implementation of pre-heparinised syringes. Staff perceived the new system safe and easy to use. Conclusions: The saved volume is equivalent to one unit of blood every 20 days. Next steps include extending the new protocol and shared learning to other ICUs and clinical areas in our healthcare Trust and to the NI Critical Care Network. We will explore arterial line systems that eliminate dead space volume, investigate improvements in rationale based decision-making for ABG sampling, and improve engagement with electronic ordering systems. This project is part of a larger Trust Plebotomy Reduction Project.
Abstract
Background: Sepsis is a common and potentially life threatening condition. Despite this, national enquiries have consistently demonstrated failings in identifying and initiating treatment for the condition. This is a quality improvement project aimed at improving the recognition and treatment of patients identified as high risk with intravenous antibiotics within one hour of emergency department (ED) admission at Weston General Hospital (WGH), UK, using a patient group directive (PGD). Method: Patient notes were identified using the Health and Social Care Information Centre 'sepsis' codes A40 and A41. Patients under age 18, neutropaenic, or pregnant were excluded. Remaining notes were reviewed to identify if 'red flag' markers were present at time of triage. These were defined as; hypotension (systolic BP<=90 mmHg), raised lactate (>2 mmol/L), tachypnoea (>25/minute), hypoxia (< 91%), plasma glucose >= 7.7 mmol/L in absence of diabetes, reduced conscious level (responding only to voice), or purpuric rash. If identified, time to administration of intravenous antibiotics was recorded. From May 2016, a series of interventions were introduced at WGH ED. In order these were; an awareness campaign at handover, creation of a PGD enabling senior nursing staff to independently issue broad spectrum antibiotics (tazocin, or levofloxacin if penicillin allergic) for patients fulfilling red flag criteria, and advertising monthly performance on a run chart within ED. Results: In our baseline audit (n=27), 12 patients had red flag features on triage (44%) of which only one (8%) was administered antibiotics within one hour. Following our interventions the proportion of patients identified at high risk and so treated promptly with intravenous antibiotics consistently increased. At the end of our study period, February 2017 (n=17) seven of the eight patients presenting with red flags received antibiotics within one hour (87%). Conclusion: Introduction of a PGD, alongside an education campaign has significantly improved the identification and treatment of patients with high risk sepsis at WGH. Interestingly, despite advocating the use of tazocin there has been little increase in the amount issued. The introduction of a PGD appears to have raised nursing awareness, expanded their independent action and prompted more rapid assessment by emergency clinicians. This has resulted in faster and more focused antibiotic administration. As ED attendances continue to rise nationally, introducing safety measures such as a sepsis PGD warrant consideration.

34. Audit of HIV testing and Retrospective Cohort analysis of HIV positive Critical Care Patients
Authors Yakubi M.; Pennington J.
Source Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 108
Publication Date May 2018
Publication Type(s) Conference Abstract
Database EMBASE
Abstract Background: National and international guidelines support opt-out HIV testing where local prevalence exceeds 2 per 1000 individuals. Local guidelines at Barts Health suggest HIV testing for all Critical Care Admissions.1 Methods: Snapshot audit and re-audit of all inpatients in Adult Critical Care Unit, followed by retrospective cohort analysis of all patients who were HIV positive admitted to Critical Care between Jan 2015 and December 2016. Results: On a snapshot audit of 31 inpatients, 68% had been tested for HIV. Following reinforcement of importance, discussion with nursing staff and posters displayed, on re-audit this had increased to 94%. There was a cohort of 100 HIV positive patients admitted to The Royal London CCU during 2 years studied, revealing mean age at admission of 49 years, 79% of patients being male. Apache II mortality estimation mean was 20.87% with total ITU mortality of 17%, and a further 3% mortality prior to discharge from hospital. Mean critical care length of stay was 6 days. Most common reasons for admission were; respiratory related 31%, surgical 13%, sepsis 12%, gastroenterology related 9%, and neurological 9%. Discussion: Our audit shows an increase in percentage of patients tested for HIV following our intervention, when audit loop was closed. The most common cause for HIV positive patients to be admitted to critical care was related to respiratory pathology, predominantly pneumonia. It would be interesting with further work, to identify the link between CD4 count and viral load with mortality and to compare findings at The Royal London Hospital with other centres.

35. Improving the care of patients with traumatic head injury
Authors Hayward J; Seal K; Littlejohn I.
Source Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 43
Publication Date May 2018
Publication Type(s) Conference Abstract
Database EMBASE
Abstract Background: Traumatic head injury is a common and devastating cause of death and disability. Despite improvements in radiological and neurosurgical techniques, outcomes have remained poor. There is recognition that a multi-disciplinary approach to the investigation and management of moderate and severe head injury is beneficial. Methods: A service improvement project aimed at improving the recognition and treatment of patients identified as high risk with intravenous antibiotics within one hour of admission. Results: From April 2017, a series of interventions were introduced at St Andrews. In order these were; an awareness campaign at handover, creation of a PGD enabling senior nursing staff to independently issue broad spectrum antibiotics (tazocin, or levofloxacin if penicillin allergic) for patients fulfilling red flag criteria, and advertising monthly performance on a run chart within ED. Results: In our baseline audit (n=35), 15 patients had red flag features on triage (43%) of which only one (8%) was administered antibiotics within one hour. Following our interventions the proportion of patients identified at high risk and so treated promptly with intravenous antibiotics consistently increased. At the end of our study period, April 2018 (n=20) seven of the ten patients presenting with red flags received antibiotics within one hour (70%). Conclusion: Introduction of a PGD, alongside an education campaign has significantly improved the identification and treatment of patients with high risk traumatic head injury at St Andrews. Interestingly, despite advocating the use of tazocin there has been little increase in the amount issued. The introduction of a PGD appears to have raised nursing awareness, expanded their independent action and prompted more rapid assessment by neurosurgeons. This has resulted in faster and more focused antibiotic administration. As ED attendances continue to rise nationally, introducing safety measures such as a traumatic head injury PGD warrant consideration.
Abstract

The Royal Sussex County Hospital is the major trauma centre for the South East of England, each month we care for numerous patients with traumatic head injuries. We have well established, evidenced based guidelines pertaining to the management of patients with traumatic head injuries. Hence, we performed a retrospective audit of 30 patients admitted to ITU with traumatic head injury between 26/9/16 and 20/2/17. Patients were identified by interrogating our electronic records. The following data was collected from our ICU system (brackets indicate audit target): * PaO2 (>13 kPa) * PaCO2 (4.5 - 5.0 kPa) * ICP (<20 mmHg and CPP (>60 mmHg) * Ventilation mode (SIMV) * Blood sugar (4.5 - 8.3) * Core temperature (35 - 36) * Use of anti-epileptic medications (tight seizure control) * Propofol rate (<4 mg/kg/hr) The results were as follows: Only 16 patients were ventilated and of those 63% were commenced on SIMV. 70% of the first 72 hours was spent on SIMV on average. In relation to this, whilst PaO2 control was good (77% of first 72 hrs had PaO2>13 kPa, 91% of first 72 hrs had PaO2>11 kPa) PaCO2 control was poor (47% of first 72 hrs had PaCO2 within range). Only 14% of patients in the first 72 hrs had temperatures controlled within the range 35-36, patients spent 47% of time in first 72hours with temps >37 and 50% of that (25% overall) was >37.5oC. ICP control of CPP>60mmHg and ICP<20mmHg was achieved in 90% of patients with ICP monitoring. 6 patients received propofol at a rate of greater than 4 mg/kg/hr, 3 of those were also receiving concurrent midazolam, 2 had their propofol reduced promptly and 1 had no change recorded. 81% of the first 72hours blood glucose was controlled between 4.5 and 8.3 mmol/L, and in the remaining 19% glucose control was still relatively "tight", rarely exceeding 12.0. 80% of patients on anti-epileptic medications had no documented seizures but there was no indication to imply the medications were prophylactic. 100% of these patients received levetiracetam and 4% also received phenytoin. In those patients we performed 90 CT head scans, 7 tracheostomies, and 2 decompressive craniectomies. Our review of this data suggests that we are not using the recommended ventilator settings and as a possible result of this our PaCO2 control is also poor. Our temperature control was outside of our guideline targets and upon review we have altered our target goals to 36 - 37 degrees Celsius.

36. Improving the delivery of daily calorific targets via the enteral route in a critically ill patient population: A quality improvement cycle in a mixed surgical and medical intensive care unit in the United Kingdom

Authors
Johnston B.; Ahmed T.; Al-Moassbeh Z.; Habgood M.; Clarke S.; Krige A.

Source
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 9-10

Abstract

Introduction: Enteral nutrition and adequate calorie intake has been associated with reduced infections and improved survival in critically ill patients. Despite this evidence data suggests patients do not achieve their daily calorific requirement. This ‘iatrogenic underfeeding’ is thought to be widespread with the CALORIES study revealing that only 10%-30% of prescribed daily kCal was delivered to patients. Utilising quality improvement methodology, we aimed to deliver greater than 85% of prescribed kCal/day by transitioning from an hourly based enteral feeding protocol to a 24-hour volume based feeding protocol, starting feeding at a higher rate and increasing the permissible gastric residual volume from 250 ml to 300 ml. Methods: Baseline data assessing the percentage of daily kCal delivered to ventilated patients via the enteral route was collected in December 2015 (cycle 1). Following presentation of baseline data new intervention guidelines were agreed based on the PEPuP protocol. Nurse champions were identified and responsible for cascade training the PEPuP protocol. Repeat data was collected 6 months (cycle 2) after intervention implementation followed by two weekly cycles utilising PDSA methodology between July 2016 and July 2017 (cycle 3 to 12). Results: Ten and twelve patients were included in cycles 1 and 2 respectively. Five patients were included during each PDSA cycle (cycle 3 to 12). During cycle one the percentage of kCal achieved via enteral feeding was 25.1%. Following intervention this increased to 82.6% (p=0.001) during cycle 2. This significant increase in daily kCal achieved via the enteral route was maintained throughout cycle 3 to 12 with patients meeting an average of 86.5% daily kCal via enteral feeding, increasing further to 95.3% of daily kCal when calories from Propofol were included. Episodes of gastric residual volumes >250 ml were not appreciably increased following switching to volume based protocol. Conclusion: Switching to a 24-hour volume based feeding regimen is a simple and cost-effective method of ensuring patients meet daily calorific targets. Through the use of quality improvement methodology, we demonstrated this approach is achievable and sustainable. The success of this quality improvement project has led to the adoption of the protocol in other ICU units in a regional critical care network. Future enhancements to the protocol will be targeted additional protein supplementation and institution of trophic feeding for those patients that would traditionally be nil by mouth prior to instigation of enteral feeding.

37. Can Advanced Critical Care Practitioners provide safe advanced airway management?

Authors
Denton G.; Arora N.; Palmer M.; Giles S.; Higgins D.

Source
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 133
38. Intensive Care Society State of the Art 2017 Abstracts

Authors: anonymous

Source: Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2)

Publication Date: May 2018

Publication Type(s): Conference Review

Database: EMBASE

Abstract:
The proceedings contain 263 papers. The topics discussed include: the burden of early oliguria in critical illness; rib fractures: elderly patients receive lower standards of care than younger patients; socioeconomic status is associated with 30-day mortality after injury; a cross-sectional analysis of national TARN data; delayed donation associated with 30-day mortality after injury: a cross-sectional analysis of national TARN data; delayed donation after brain death: concept and support level by Flemish donor coordinators; intensive care staff perceptions of the provision of AAM by ACCPs in the UK. The aim of this audit is to describe tracheal intubations and the associated adverse events undertaken by ACCPs at a large NHS Trust. Method: We included consecutive tracheal intubations outside of the operating theatre between December 2016 and July 2017. Both rapid sequence inductions (RSI) and intubations during cardiac arrest were included. Data were prospectively collected using a web-based anonymised form. Descriptive statistics were applied in the analysis of data. Results: The audit period recorded 241 intubations. Most were RSI intubations (n=204, 84.6%), the remainder were intra-arrest intubations (n=37, 15.3%). The majority of cases were intubated by ACCPs (n=174, 72.2%), 77% by qualified ACCPs (n=134), 23% by trainees (n=40). For the 144 RSIs performed by ACCPs, first pass success (FPS) was 89.6% (n=129). RSI was performed more frequently by qualified ACCPs than trainee ACCPs (107 v 37 events), the FPS rate differed between groups (qualified n=98, 91.6% v trainee n=29, 78.4%). There were no adverse events during the majority of the 144 ACCP delivered RSIs (n=119, 82.6%). Twenty-five adverse events were observed: hypoxia (n=12, 8.3%) and hypotension (n=10, 6.9%) were most common, recognised oesophageal intubation (n=4, 2.7%), and cardiac arrest (n=3, 2.1%). There were no unrecognised oesophageal intubations. Discussion: The Difficult Airway Society recognise that repeated, failed attempts at laryngoscopy increases risk of adverse events. A meta-analysis of FPS for RSI in the emergency department, considered 84% the minimum standard 1. The largest published data sets in the UK on the subject of RSI in the critically ill identified FPS of 82% for emergency medicine doctors and 92% for anaesthetists2. Conclusion: This audit of ACCP delivered tracheal intubation, qualified ACCPs working within a framework of appropriate clinical supervision, were found to be able to perform tracheal intubation to a comparable standard to doctors working in intensive care or emergency medicine.

39. Communication under pressure: Improving clinical-interoperability and communication between the royal air force critical care air support teams and us air force critical care air transport team

Authors: Hall D.; Howley M.

Source: Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 162

Publication Date: May 2018

Publication Type(s): Conference Abstract

Database: EMBASE

Abstract:
Introduction: Advanced airway management (AAM) may be delivered by Advanced Critical Care Practitioners (ACCP) across the hospital, in the context of a consultant led/supervised support structure. There are limited data on the provision of AAM by ACCPs in the UK. The aim of this audit is to describe tracheal intubations and associated adverse events undertaken by ACCPs at a large NHS Trust. Method: We included consecutive tracheal intubations outside of the operating theatre between December 2016 and July 2017. Both rapid sequence inductions (RSI) and intubations during cardiac arrest were included. Data were prospectively collected using a web-based anonymised form. Descriptive statistics were applied in the analysis of data. Results: The audit period recorded 241 intubations. Most were RSI intubations (n=204, 84.6%), the remainder were intra-arrest intubations (n=37, 15.3%). The majority of cases were intubated by ACCPs (n=174, 72.2%), 77% by qualified ACCPs (n=134), 23% by trainees (n=40). For the 144 RSIs performed by ACCPs, first pass success (FPS) was 89.6% (n=129). RSI was performed more frequently by qualified ACCPs than trainee ACCPs (107 v 37 events), the FPS rate differed between groups (qualified n=98, 91.6% v trainee n=29, 78.4%). There were no adverse events during the majority of the 144 ACCP delivered RSIs (n=119, 82.6%). Twenty-five adverse events were observed: hypoxia (n=12, 8.3%) and hypotension (n=10, 6.9%) were most common, recognised oesophageal intubation (n=4, 2.7%), and cardiac arrest (n=3, 2.1%). There were no unrecognised oesophageal intubations. Discussion: The Difficult Airway Society recognise that repeated, failed attempts at laryngoscopy increases risk of adverse events. A meta-analysis of FPS for RSI in the emergency department, considered 84% the minimum standard 1. The largest published data sets in the UK on the subject of RSI in the critically ill identified FPS of 82% for emergency medicine doctors and 92% for anaesthetists2. Conclusion: This audit of ACCP delivered tracheal intubation, qualified ACCPs working within a framework of appropriate clinical supervision, were found to be able to perform tracheal intubation to a comparable standard to doctors working in intensive care or emergency medicine.
Abstract

International aeromedical evacuation of critically ill or injured UK military personnel and entitled civilians is the responsibility of the Royal Air Force (RAF) Critical Care Air Support Team (CCAST). A similar role is performed within the US military by the US Air Force Critical Care Air Transport Team (CCATT). Despite their similar responsibilities, the organisation, equipment and clinical protocols utilised by the two teams differ in several important areas. With future military operations and training exercises increasingly likely to involve the UK and US as coalition partners, the need for CCAST and CCATT to work together clinically is likely to increase. Experience during recent operations in Afghanistan has demonstrated that accurate and timely handover of clinical care between UK and US teams, particularly in time-pressured situations or austere locations, represents a significant clinical risk and is an area suitable for quality improvement. Exercised COMBINED JOINT ATLANTIC SERPENT was a recent major exercise involving CCAST and CCATT training together to improve critical-care communication and clinical interoperability, particularly with regard to cross-loading critically injured patients from UK to USAF aircraft. During this exercise, an iterative approach was taken to developing a clinical and communication toolkit to ensure safe clinical and operational handover between RAF and USAF clinical teams. We describe the development and testing of this checklist over the course of several joint simulated missions, its incorporation into routine use for the transfer of critically ill patients and lessons identified when care of complex critically ill patients is transferred between teams from different countries and health systems. We suggest these lessons may be applicable for UK critical care units not just receiving patients repatriated from overseas, but also from other UK centres with which they do not have a regular referral relationship.

40. The Ongoing Prevalence of Delirium in a Large Critical Care Unit in a Tertiary Referral Teaching Hospital

Authors
Milner Y.; Carroll R.; Gabriel L.; Wan R.; Griffiths K.; Dingli K.

Source
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 99

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May 2018

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EMBASE

Abstract

Introduction: Delirium is defined as an acute, fluctuating deterioration of mental state. It is one of the most common types of organ dysfunction in the critically ill, with a prevalence of 50 - 80%. Despite its high prevalence, association with morbidity and contribution to prolonging hospital stay, it remains significantly underrecognised. Methods: We conducted a prospective re-audit of an adult ICU in the same NHS Trust over a two-week period in July 2017 to complete the audit cycle. A diagnosis of delirium was assessed using the Confusion Assessment Method for Intensive Care Unit (CAMICU) and medical chart review (MCR). Inclusion criteria for the audit were: age > 18 years, length of admission > 72 hrs. Exclusion criteria were: language difficulties, pre-existing cognitive or hearing impairment (n=68). We also documented basic demographic data, sedation scores and the use of drugs known to have a potential psychotropic effect. Results: We recorded data for 340 patient days for 68 patients. The prevalence of delirium, based on a positive CAM-ICU, was 13% (n=14), corresponding 4.1% of total patient days. Of the patients suffering from delirium, 88% were male, with a median age of 62 years. 50% of the patient days that scored a positive CAM-ICU were deemed delirium negative based on MCR. A CAM-ICU was not documented for 40% of patient days. 14.2% of patient days with a positive CAM-ICU had a RASS score of <1, indicating probable hypoactive delirium. 79% of patient days with a positive CAM-ICU received psychotropic and/or sedative pharmacotherapy versus 56% of patient days without a positive CAM-ICU. Conclusions: In comparison to the results of our first audit conducted in 2016, we find that the prevalence of delirium appears reduced; from 18% to 13%. However, the percentage of total patient days when a CAM-ICU was not performed has increased, from 32% to 40% of total patient days. This means there is uncertainty in interpreting our results and an addition exploration of the barriers preventing CAM-ICU assessment is warranted. CAM-ICU has previously been found to be a very useful tool in the diagnosis of delirium with a sensitivity of 80% and a specificity of 95.9%. The fact that potentially 50% of patient days with delirium could have been missed on MCR alone emphasizes the value of using a screening tool for this clinically important condition.

41. Ensuring theatre access for patients requiring urgent surgical intervention at an acute district general hospital

Authors
Ribeiro B.; Menezes S.; Haider S.

Source
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 130

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According to the latest National Emergency Laparotomy Audit (NELA) report (2016), more than 30,000 patients undergo an emergency laparotomy each year in NHS hospitals in England and Wales. The NELA has established guidance recommending specific timelines for surgical patients to enter theatres once the surgical team has made a decision to operate, aiming to provide high quality care. For patients requiring an urgent intervention, the time between decision and procedure should be between 2 and 6 hours (category 2A). We examined whether this group of emergency surgical patients admitted to an acute district general hospital had their surgical interventions within the timeline recommended by NELA and its impact on the hospital length of stay (LOS) and survival. We have retrospectively examined all patient entries from the 2016 NELA database and only those highlighted as “Urgent” on the NCEPOD (National Confidential Enquiry into Patient Outcome and Death) classification were included (category 2A). Patient demographics were collected from NELA. The surgical details and timing, level of care after surgery, LOS and survival were obtained from NELA and the hospital electronic records. In 2016, 187 urgent laparatomies/laparoscopy-equivalents were performed at our trust. Of these, 83 (44.4%) were considered “urgent” as per NCEPOD and included. The median age was 71 years (range 28-93) and there were 43 men (51.8%) and 40 women (48.2%). The mode ASA grade was 3. For this group of patients, the preoperative POSSUM predicted mortality was 8.6% (0.8-75.5%). The median waiting time to enter the emergency theatre was 2.5 hours (0-22.5 hours). 86.7% of the cases entered the emergency theatre within 6 hours after the decision to operate. Of these, 55.6% were admitted to critical care post-operatively with the rest being admitted to the wards. 88.9% of these patients were discharged from hospital with a median LOS of 11.4 days (0.7-53.5 days). For the group who waited longer than 6 hours for their urgent procedure (13.3%), 54.5% were admitted to critical care. Of this group, 90.9% survived to discharge with a median LOS of 15.5 days. Our results show that our trust has been successful in meeting the NELA guidance by ensuring that the majority of patients requiring urgent surgical interventions have received the appropriate level of care within the target timeframe. Those not meeting the guidance have a longer hospital LOS. Post-operative monitoring in critical care is common and it reflects on the higher survival rates.

42. ICNARC score versus P-POSSUM score for predicting mortality in emergency laparotomies

Authors: Fryer S.; McCann J.
Source: Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 129-130
Publication Date: May 2018
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Database: EMBASE

Abstract: The National Emergency Laparotomy Audit (NELA) examines the delivery of emergency bowel surgery in hospitals within England and Wales. The second NELA report 2016 commented on the preoperative P-POSSUM predicted mortality versus the actual observed mortality. They concluded that at low scores, 0-15%, it proved useful in determining the need for consultant presence in theatre and need for postoperative Intensive Care Unit (ICU) admission. At higher scores the correlation of POSSUM with mortality was poor and therefore should not be used. The ICU ICNARC score is well validated in ICU patients in predicting mortality. It is similar to POSSUM although POSSUM is more weighted on surgical findings e.g. malignancy and ICNARC more on physiological parameters e.g. lactate. We speculated on whether the ICU ICNARC score would correlate better with mortality than this emergency laparotomy cohort than POSSUM. Method: From the NELA database we identified patients that underwent emergency laparotomies in 2014-2016 who were admitted to ICU pre-operatively and post-operatively. We identified the 30 day mortalities of 166 patients. We collected ICNARC, pre-operative and post-operative POSSUM scores on these patients. Results: We found that with our data there is a significant correlation with ICNARC and both POSSUM scores. ICNARC correlates with pre-operative POSSUM at Pearson coefficient of 0.525 with p value=0.006 (p<0.01). ICNARC correlates with postop possum at Pearson coefficient 0.609 with p value=0.001 (p<0.01). ICNARC correlates more closely with post-operative POSSUM than pre-operative POSSUM - Pearson coefficient of 0.609 compared to 0.525. Conclusions: The estimate of risk of death provided by P-POSSUM is reasonably accurate below around 15%. However above this, P-POSSUM tends to overestimate risk. P-POSSUM is still useful for identifying patients who need resources such as critical care. However we urge caution in reliance on P-POSSUM when used to guide clinical decision making at high levels of predicted mortality as it overestimates risk of death by a factor of approximately two. Post-operative P-POSSUM predicted mortality has a closer correlation with ICNARC score than pre-operative. We had hoped that ICNARC would be more useful at the higher range of predicting mortality. Our study showed close correlation with P-POSSUM and we can therefore conclude that it would have the same limitations as possum.

43. The provision of theatre access for emergency surgical patients requiring an immediate intervention at an acute NHS trust and its impact on survival and hospital stay

Authors: Menezes S.; Haider S.; Ribeiro B.
Source: Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 128
Abstract

Early intervention for surgical patients requiring an emergency laparotomy has been linked to improved outcomes. The National Emergency Laparotomy Audit (NELA) and National Confidential Enquiry into Patient Outcome and Death (NCEPOD) have guidelines for the time frames that emergency surgical patients should face to enter the theatre complex (TC) once a decision to operate is made. For patients requiring immediate surgery, this should be less than 2 hours (h). Our aim was to determine if our care to these high-risk surgical patients met this standard and the impact on survival and length of stay (LOS). All entries to the NELA database were retrospectively examined for the 2015 and 2016 calendar years. Only those with a NCEPOD classification of intervention of “Immediate” were included. Patient demographics (age, sex, and ASA grade) were collected from the NELA database as well as the times for the decision to operate and entry into the TC. The trust’s electronic patient records system was used to determine the level of care after post-operatively, survival to discharge, and the LOS. There were 348 emergency laparotomy/laparoscopy equivalents that were performed at our trust in 2015 and 2016. Only 37 patients met our criteria of an “Immediate” need for surgery. The median age was 71 (range: 32-86) and 40.5% were men. The mode ASA grade was 4 and the pre-operative POSSUM predicted mortality was 38.4% (range: 1.5-98.5%). Only 70.3% of the patients entered the TC within 2 h of the decision to operate with a median time of 1.6 h (range: 0.25-59.5 h). For those meeting the standard, 80.8% were admitted to critical care post-operatively, 15.4% went to the wards, and 3.8% did not survive the procedure. Only 61.5% of these patients survived to discharge and their median LOS was 26.6 days (range: 5.8-114.5 days). For those that did not meet the standard, 81.8% were admitted to critical care and 18.2% to the wards. Of this group, 90.9% survived to discharge with a median LOS of 24.8 days (range: 3.5-120 days). Our trust has some improvement to undertake to ensure optimal care for patients that require immediate surgical intervention as shown by only 71.3% meeting the standard. However, these patients all remain critically unwell and 61.5% of those that met the standard still did not survive to discharge. The trust has developed an emergency theatre standard operating procedure and improvements in the access to theatres will be subsequently re-evaluated.
45. Socioeconomic status is associated with 30-day mortality after injury: A crosssectional analysis of national TARN data

**Authors**
McHale P.; Hungerford D.; Astles T.; Morton B.

**Source**
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 4

**Abstract**
Introduction: The relationship between socioeconomic status and mortality is well defined across multiple different pathologies. However, the relationship between deprivation and survival from trauma is less clear. There is substantial evidence of a social gradient in injury risk but contradictory evidence of a gradient for mortality. To address this issue, we analysed this relationship using data from the Trauma Audit and Research Network (TARN). Methods: We obtained TARN data for patients admitted to hospitals in England and Wales with trauma (TARN identifies patients through Hospital Episode Statistics) January 2015 - January 2016. This dataset includes Injury Severity Score (ISS), demographics, four-digit postcode and 30-day mortality. Using mortality as binary outcome, we performed multiple logistic regression with age group, sex and ISS (split into minor <15, major 15-24, and severe 25+). Additional analysis was performed, stratifying injuries into minor and major categories (using the ISS of 15). National quintiles of deprivation were constructed from the four-digit postcode using area weighted Lower Super Output Area Index of Multiple Deprivation (IMD) scores. Results: There were 52,422 patients admitted to hospitals in England and Wales with trauma. Compared to patients from the least deprived quintile, those from the most deprived are significantly more likely to die within 30 days. Other quintiles are also significantly more likely, however there is no clear social gradient. Additionally, increasing ISS is associated with increased mortality, as is increasing age and males compared with females. Stratifed analysis showed that sex and IMD were not significantly associated with mortality for major injuries, but both were significant for minor injuries. The adjusted odds ratio for those in the most deprived areas was 1.39 compared to those from the least deprived (p<0.001). Conclusion: The results show that deprivation was related to mortality only in minor injuries. This is potentially because of relative strength of effect in major injuries overcoming potential effect of deprivation (or other demographics) on mortality. However, another possibility would be that the increased resource available for the care of major injuries ameliorates the effect of demographics. Targeting older patients with minor trauma from more deprived backgrounds for preventative interventions and considering clinical practice pathways (e.g. increased orthogeriatrician input) could potentially impact on outcomes for these patients.

46. Screening for pregnancy in critical care: A regional survey of practice in the north of England

**Authors**
Jackson M.; Frostick E.; Platt S.

**Source**
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 127
Introduction: Acute trusts across the NHS are facing severe bed pressures with bed occupancy rates consistently above 90% in some trusts. Disruption of patient flows is especially problematic in the UK, where the critical care bed to population ratio is one of the lowest in the developed world. The number of patients discharged directly to home from critical care has increased as a consequence. In this retrospective observational study we examined the safety of direct discharges from a critical care unit that has been particularly susceptible to this problem. Materials and Methods: All patients who were discharged directly to home from critical care were included in the study. Admission to any part of the hospital within 28 days of discharge from the critical care unit was considered to be a readmission. Simple statistical measures were used to compare patients discharged to the ward (DW) and directly discharged home (DD). Results: The proportion of DD patients approximately doubled every year in the study period (3.7%, 8.8%, 15.7% from 2014 to 2016). While the number of admissions increased approximately linearly, the number of discharges to the ward showed a steady decrease. When compared to conventional discharges, DD patients tend to be younger (mean age 46.3 years (SD 19 years) compared to 64.9 years (SD 17 years)) and tend to have shorter critical care stay (median of 2 compared to 4 days). Patients discharged home were commonly admitted with diabetic ketoacidosis (DKA, 35%), drug overdose (12%) and seizures (8%). One patient, readmitted with DKA, died in the three-year period. Readmission rates for DD patients was similar throughout the study period and comparable to the readmission rates for DW patients (Table 1). Conclusions: The proportion of patients discharged directly to home is increasing. However, these discharges occur in a relatively healthy subset of younger patients with a small group of pathologies. In this patient subset, direct discharge is not associated with increased readmission rates or excess mortality. Acknowledgements: We would like to thank Olalekan Agboluaje (Information analyst), Barbara O’Leary (ICNARC team) and Dr. Keith Gunasekara in Broomfield hospital for their help in data provision. (Table Presented).
48. Surveillance of central venous catheter bloodstream infections in critical care units in England: Results from the sentinel study May 2016-April 2017

**Authors**  
Gerver S.; Mihalkova M.; Hope R.; Bion J.; Wilson P.

**Source**  
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 34

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**Abstract**

Introduction: Bloodstream infections (BSI) from central venous catheters (CVC-BSI) in critically ill patients in intensive care units (ICUs) increase morbidity and mortality, have high economic impact and are potentially preventable. Substantial reductions in CVC-BSI rates have previously been reported in England in a two-year study (2009-11). A key outcome was the need for a professionally- owned, standardised, national infection surveillance programme in ICUs. In 2011, the Infection in Critical Care Quality Improvement Programme (ICCQIP) was developed, representing a national collaboration of all professional organisations involved in adult, paediatric and neonatal intensive care, microbiology and infection control. Here we present the results from the first year of the ICCQIP CVC-BSI surveillance programme. Methods: An online data capture system (DCS) was launched in May 2016 to collect patient-level data on all positive blood cultures (PBCs) in participating ICUs and unit-level data on bed-days and CVC-days. NHS Trusts (hospitals under the same management) in England who had pre-registered their interest (n=43) were invited to participate in the voluntary sentinel phase of the CVC-BSI surveillance programme. In November 2016, the invitation was extended to all NHS Trusts in England. Results: Between 01/05/2016-31/04/2017, 100 of 152 NHS Trusts (n=147 ICUs) in England registered on the DCS, of which 57 (84 ICUs) have entered data (72 adult, 7 paediatric, 5 neonatal ICUs). Over the first year of surveillance, a total of 1,292, 72 and 53 PBCs were reported by adult, paediatric and neonatal ICUs, respectively. Of these, approximately half were coagulase-negative staphylococci (adult:45.3%, paediatric:56.9%, neonatal:52.8%). Among PBCs, between 20%-33% were defined as ICU-associated BSI (occurring >2 days after ICU admission) (adult:433/1,292, paediatric:19/72, neonatal: 11/53). Among adult and paediatric ICUs, just over a quarter of ICU-associated BSIs were reported as CVC-BSI (124/433,28.6% and 5/19.26.3%, respectively); this was higher among neonatal ICUs (5/ 11,45.5%). Overall, these equate to rates of 2.3, 1.0 and 1.5 per 1,000 ICU-CVC-days, respectively. However, there was wide variation in CVC-BSI rates between ICU types, particularly in adult ICUs (0-18.3 ICU-associated CVC-BSI per 1,000 ICU-CVC-days). Discussion: The overall rates of microbiologically confirmed ICU-associated CVC-BSI are moderate across all age-ranges; however, the difference in rates between units highlights the importance of providing a national standardised surveillance system for benchmarking and to determine the causes. With the surveillance scheme now out of its sentinel phase, work on barriers and facilitators to participation will be assessed in order to increase the number of Trusts in England providing data.

49. Investigating standards of delirium assessment

**Authors**  
Harding P.; Rooney K.; Bell J.

**Source**  
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 157

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May 2018

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**Abstract**

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Abstract

Introduction: Delirium during an intensive care unit (ICU) admission is very common with an incidence of up to 65% in ventilated patients (1). Detection of ICU delirium is important as it is an independent predictor of mortality, increased hospital length of stay, increased cost of care and development of cognitive impairment; however, it is frequently missed, particularly in patients with the hypoactive subtype of delirium. The Confusion Assessment Method for the Intensive Care Unit (CAM-ICU) is a tool that has been developed to assist clinicians in the detection of delirium in ICU patients (2). In the general ICU of University Hospitals Bristol (UH Bristol) NHS Foundation Trust, patients are expected to receive at least one CAM-ICU assessment in a 12-hour period (>=1 per nursing shift). Assessments are usually performed by the bedside nurse. Following several years of an iterative delirium improvement programme, the overall delirium rate on UH Bristol ICU is 15% (unpublished data), however, the validity of these results depend on the correct application of the CAM-ICU. This project was undertaken as part of an ongoing quality improvement project to reduce delirium in patients on ICU at UH Bristol. It had two aims. Firstly, to establish whether CAM-ICU assessments were taking place on the unit according to the local standard. Secondly, to observe whether documentation of CAMICU assessments contained evidence of errors in the performance of assessments compared to the training and guidance provided in the literature. Method: The electronic clinical information system (CIS) was retrospectively examined for all patients present on ICU during June 2017. The number of 12-hour periods in which patients received >=1 CAM-ICU assessment and the number of errors made in CAM-ICU documentation were counted, excluding patients that met the criteria of ‘unable-to-assess’. Results: 125 patients passed through the general ICU 1st-30th June 2017 and 1034 12-hour periods were reviewed. At least one CAM-ICU assessment was performed on the patient during 85% of 12-hour periods. There was a discrepancy of documentation of CAM-ICU assessments in 13% of 12-hour periods. Conclusion: Compared to the expected standard, the compliance in this unit was good, reflecting a level of compliance seen in other studies. This gives confidence that the reduced delirium rates seen are a true reflection of improved practice.

50. Ventilator-associated pneumonia (VAP) following trauma: A review of risk factors and outcomes amongst patients admitted to a UK major trauma centre

Authors: Kerr D.; Bauchmueller K.; Nugent L.; Temple A.
Source: Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 62-63
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Abstract

Introduction: It has been reported that trauma patients have a higher incidence of VAP than non-trauma ICU admissions. We aimed to identify risk factors for developing VAP following trauma, and assess its impact on key outcomes in a UK major trauma centre. Methods: Retrospective observational review of ventilated adult trauma patients admitted to our critical care unit between January 2015 and December 2016. We identified all trauma patients intubated prior to ICU admission from the Trauma Audit and Research Network database. Using this alongside our electronic patient record (Metavision), we retrieved data on patient characteristics, injury severity scores (ISS), duration of ventilation, hospital mortality and length of stay. Statistical analysis was performed using SPSS. Data are expressed as mean (standard deviation, SD) or median (range) as appropriate. Results: One hundred and seventy trauma patients were admitted during the study period (71.5% male), with a median age of 44.7 years (17-86). All sustained multiple injuries, the most severely affected body regions being the head (in 61.7%) and chest (10%). All patients were placed on a ventilator care bundle in line with established unit practice. Twelve patients developed VAP, with four having two episodes during the same admission period. Twelve patients developed VAP, with four having two episodes during the same admission period. ISS scores were significantly higher in the VAP group; however no other significant differences were observed in terms of age, gender and admission GCS scores between those who did or did not develop VAP. Outcomes are described in table 1. The VAP rate amongst our trauma cohort was 12.86 per 1000 ventilator days, considerably higher than the overall VAP rate for our ICU during the same period (7.25 per 1000 ventilator days). Conclusions: We did not identify a link between VAP and mortality in our trauma cohort. The association with increased duration of ventilation and length of stay provides an incentive for targeted surveillance and prevention strategies in this vulnerable group. Antibiotic prophylaxis may warrant consideration, particularly for those with high ISS scores, although robust evidence to support this is currently lacking.

51. ICU hits the NEWS: Early Warning Score documentation within Critical Care

Authors: Jaswal R.; Cooper E.; Davidson L.; Gething H.; McCallum A.; Ravishankar R.; Vick O.; Gali S.; Lunkiewicz J.; Mcneill G.
Source: Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 62
Publication Date: May 2018
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Database: EMBASE
Abstract

Introduction: The National Early Warning System (NEWS) is the most commonly used track and trigger system on general wards within UK hospitals. It assesses 6 simple physiological parameters: respiratory rate, oxygen saturations, temperature, systolic blood pressure, pulse rate, level of consciousness. NEWS was introduced into the Royal Infirmary of Edinburgh in April 2016. Completion of NEWS observations has become a standard practice in Critical Care once the patient is deemed fit for transfer to general wards. It is key that NEWS observations are accurately recorded in Critical Care in order to ensure patient care is transitioned safely at the time of ward transfer. The aim of our audit was to assess the percentage of NEWS charts that had been filled out incorrectly by Critical Care staff at the Royal Infirmary of Edinburgh. Following the results, a 3 part intervention was introduced. A re-audit was then carried out. Methods: Completed NEWS observation charts were audited for a period of 6 weeks pre intervention and post intervention. The intervention involved: 1. Critical Care nursing staff undertaking an online education package on NEWS chart completion. 2. Highlighting the importance of NEWS chart completion within a variety of unit safety forums. 3. Incorporation of NEWS scoring system into Critical Care discharge documentation. Results: First audit: 6 week period (February - March 2017). 27/48 (56.3%) patients discharged from Critical Care had incorrectly completed NEWS charts. Re-audit: 6 week period (June - July 2017), 6/22 (27.3%) patients discharged from Critical Care had incorrectly completed NEWS charts. Discussion: Results of the initial audit show that human error plays a significant role in the misreporting of NEWS scores. However, the results of the re-audit show that human error can be mitigated by providing Critical Care nurses with appropriate training on how to document information correctly on a NEWS chart, and educating them on how NEWS scores influence health care decisions. To reduce human error even further, an electronic recording system may be of use. Following this project, Critical Care NEWS error rate will be incorporated in to the local Critical Care Quality Indicator reporting tool.

52. Evaluating the safety profile of ACCP delivered Central Venous Catheterisation

Authors
Denton G.; Simmons A.; Quinton S.; Murrelly S.; Green L.

Source
Journal of the Intensive Care Society; May 2018; vol. 19 (no. 2); p. 61-62

Abstract

Introduction: The Heart of England Foundation Trust has one of the largest teams of advanced critical care practitioners (ACCP) in the UK. Central venous catheterisation (CVC) is one of the core skills provided by ACCPs. Supervision and teaching of junior doctors in performing CVC also forms part of the ACCP role. The aim of this audit was to describe the ACCP contribution to delivering and supervising CVC insertion in critical care. Methods: A web based anonymised electronic form was devised. Data were submitted shortly after insertion. All CVCs by the critical care service between December 2016 and July 2017 were recorded. These included insertion in critical care, interventional radiology, wards and the emergency department. Results: Between December 2016 and July 2017, 222 CVC attempts were recorded. These were undertaken by ACCPs (n=131, 59.0%), registrars (n=38, 17.1%) and junior doctors (n=50, 22.5%). ACCPs supervised 82.0% (n=41) of junior doctor insertions. ACCPs first pass success rate was 93.1% (n=122). The overall complication rate was 5.4% (n=12). Discussion: In the critical care environment, ACCPs provided by ACCPs. Supervision and teaching of junior doctors in performing CVC also forms part of the ACCP role. The aim of this audit was to describe the ACCP contribution to delivering and supervising CVC insertion in critical care. Methods: A web based anonymised electronic form was devised. Data were submitted shortly after insertion. All CVCs by the critical care service between December 2016 and July 2017 were recorded. These included insertion in critical care, interventional radiology, wards and the emergency department. Results: Between December 2016 and July 2017, 222 CVC attempts were recorded. These were undertaken by ACCPs (n=131, 59.0%), registrars (n=38, 17.1%) and junior doctors (n=50, 22.5%). ACCPs supervised 82.0% (n=41) of junior doctor insertions. ACCPs first pass success rate was 93.1% (n=122). The overall complication rate was 5.4% (n=12). Discussion: In the critical care environment, ACCPs contributed to delivering and supervising CVC insertion in critical care. Methods: A web based anonymised electronic form was devised. Data were submitted shortly after insertion. All CVCs by the critical care service between December 2016 and July 2017 were recorded. These included insertion in critical care, interventional radiology, wards and the emergency department. Results: Between December 2016 and July 2017, 222 CVC attempts were recorded. These were undertaken by ACCPs (n=131, 59.0%), registrars (n=38, 17.1%) and junior doctors (n=50, 22.5%). ACCPs supervised 82.0% (n=41) of junior doctor insertions. ACCPs first pass success rate was 93.1% (n=122). The overall complication rate was 5.4% (n=12). Discussion: In the critical care environment, ACCPs contributed to delivering and supervising CVC insertion in critical care.

53. The impact of advancing age on incidence of hepatectomy and post-operative outcomes in patients with colorectal cancer liver metastases: a population-based cohort study

Authors
Vallance A.E.; Kuryba A.; van der Meulen J.; Walker K.; Young A.L.; Lodge J.P.; Braun M.; Hill J.; Jayne D.G.

Source
HPB; 2018

Abstract

Hepatectomy is an accepted treatment for colorectal cancer liver metastases. However, there is limited information regarding the impact of advancing age on incidence of hepatectomy and its post-operative outcomes. We aimed to investigate the impact of advancing age on incidence of hepatectomy and post-operative outcomes in patients with colorectal cancer liver metastases. Methods: This was a population-based cohort study using linked routinely collected administrative data to identify adult patients diagnosed with colorectal cancer between 2000 and 2016 in England. Patients were followed up to December 2016. We identified patients with colorectal cancer liver metastases who underwent hepatectomy. We matched patients with colorectal cancer liver metastases who did not undergo hepatectomy in a ratio of 5:1. Age at diagnosis was the main exposure variable, and differences in age were changed into quadratics. Results: A total of 9,963 patients were included in the study cohort, of whom 3,711 (37.4%) underwent hepatectomy. The median age at diagnosis was 69 years (IQR 59-79). A stratified analysis by age group showed that the age at diagnosis was associated with an increased risk of undergoing hepatectomy (p<0.001). The unadjusted odds ratio for hepatectomy associated with advancing age was 1.06 (95% CI 1.04-1.08). After adjusting for potential confounders, the age at diagnosis showed a significant effect on the likelihood of undergoing hepatectomy (odds ratio 1.04 per year older, 95% CI 1.03-1.05). Conclusions: Advancing age at diagnosis was associated with an increased risk of undergoing hepatectomy for colorectal cancer liver metastases.
Abstract

Background: Clinical outcomes for elderly patients undergoing liver resection for colorectal cancer (CRC) liver metastases are poorly characterised. This study aimed to investigate the impact of advancing age on the incidence of liver resection and post-operative outcomes. Methods: Patients in the National Bowel Cancer Audit undergoing major CRC resection from 2010 to 2016 in England were included. Liver resection was identified from linked Hospital Episode Statistics data. A Cox-proportional hazards model was used to compare 3-year mortality. Results: Of 117,005 patients, 6081 underwent liver resection. For patients <65 years there was 1 liver resection per 12 cases, 65-74, 1 per 17, and >=75, 1 per 40. 90-day mortality after liver resection increased with advancing age (<65 0.9% (26/2829), 65-74 2.8% (57/2070), >=75 4.0% (47/1182); P < 0.001). Age was an independent risk factor for 3-year mortality. Patients 65-74 did not have adjusted mortality higher than those <65, yet age >=75 was associated with increased overall mortality (Hazard ratio (HR) 1.47 (95% CI 1.30-1.68)) and cancer-specific mortality (HR 1.30 (95% CI 1.13-1.49)). Conclusion: Although advancing age was associated with higher rates of 90-day mortality following liver resection, 3-year mortality for patients 65-74 years was comparable to younger patients. These results will aid clinicians and patients in pre-operative decision-making.

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Abstract

Background: Classrooms can be noisy and are challenging listening environments for children with auditory processing disorder (APD). This research was undertaken to determine if the Listening Inventory for Education-UK version (LIFE-UK) can differentiate children with listening difficulties and APD from their typically developing peers. Purpose: To investigate reliability and validity of the student and teacher versions LIFE-UK questionnaire for assessing classroom listening difficulties. Research Design: Cross-sectional quantitative study comparing children with listening difficulties with typically developing children. Study Sample: In total, 143 children (7-12 yr) participated; 45 were diagnosed with APD. Fifteen participants with reported listening difficulties who passed the APD test battery were assigned to a “listening difficulty” (LiD) group. Eighty three children from nine classrooms formed a Control group. Data Collection and Analysis: Children and teachers completed the LIFE-UK questionnaire student and teacher versions. Factor analysis was undertaken, and item reliability was assessed using Cronbach's alpha. Teacher and student ratings were compared using Spearman correlations. Correlations between LIFE-UK ratings and APD test results were also investigated. Results: Factor analysis revealed three factors accounting for 60% of the variance in the Control group LIFE-UK ratings. After removing six items with low factor loadings, a shortened seven-item version with three factors accounted for 71.8% of the variance for the student questionnaire; Cronbach's alpha indicated good internal reliability for this seven-item version of the student questionnaire. Factors were also derived for the teacher questionnaire. Teacher and student ratings were correlated when participant groups were combined. LIFE-UK ratings correlated weakly with some APD measures, providing some support for the questionnaire validity. Conclusions: The results support the use of either the 13- or 7-item student and the teacher versions of the LIFE-UK to evaluate classroom listening and functional consequences of APD. Factor analysis resulted in groupings of items reflecting differences in listening demands in quiet versus noise for the student questionnaire and attentional versus class participation demands for the teacher questionnaire. Further research is needed to confirm the robustness of these factors in other populations. Copyright © 2018 American Academy of Audiology. All rights reserved.
Abstract

Background: Personal frequency modulation (FM) systems are often recommended for children diagnosed with auditory processing disorder (APD) to improve their listening environment in the classroom. Further evidence is required to support the continuation of this recommendation. Purpose: To determine whether personal FM systems enhance auditory processing abilities and classroom listening in school-aged children with APD.

Research Design: Two baseline assessments separated by eight weeks were undertaken before a 20-week trial of bilateral personal FM in the classroom. The third assessment was completed immediately after the FM trial. A range of behavioral measures and speech-evoked cortical auditory evoked potentials (CAEPs) in quiet and in noise were used to assess auditory processing and FM outcomes. Perceived listening ability was assessed using the Listening Inventory for Education-United Kingdom version (LIFE-UK) questionnaire and student and teacher versions, and a modified version of the LIFE-UK questionnaire for parents. Study Sample: Twenty-eight children aged 7-12 years were included in this intervention study. Of the 28 children, there were 22 males and six females. Data Collection and Analysis: APD Tests scores and CAEP peak latencies and amplitudes were analyzed using repeated measures analysis of variance to determine whether results changed over the two baseline assessments and after the FM trial. The LIFE-UK was administered immediately before and after the FM trial. Student responses were analyzed using paired t-tests. Results are described for the (different) pre- and post-trial teacher versions of the LIFE-UK. Results: Speech in spatial noise (SSN) scores improved by 13% on average when participants wore the FM system in the laboratory. Noise resulted in increased P1 and N2 latencies and reduced N2 amplitudes. The impact of noise on CAEP latencies and amplitudes was significantly reduced when participants wore the FM. Participants’ LIFE-UK responses indicated significant improvements in their perceived listening after the FM trial. Most teachers (74%) reported the trial as successful, based on LIFE-UK ratings. Teachers’ and parents’ questionnaire ratings indicated good agreement regarding the outcomes of the FM trial. There was no change in compressed and reverberated words, masking level difference, and sustained attention scores across visits. Gaps in noise, dichotic digits test, and SSN (hard words) showed practice effects. Frequency pattern test and SSN easy word scores did not change between baseline visits, and improved significantly after the FM trial. CAEP N2 latencies and amplitudes changed significantly across visits; changes occurred across the baseline and the FM trial period. Conclusions: Personal FM systems produce immediate speech perception benefits and enhancement of speech-evoked cortical responses in noise in the laboratory. The 20-week FM trial produced significant improvements in behavioral measures of auditory processing and participants’ perceptions of their listening skills. Teacher and parent questionnaires also indicated positive outcomes.

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57. The colorectal surgeon’s personality may influence the rectal anastomotic decision

Authors
Moug S.J.; Bisset C.N.; Henderson N.; Tiernan J.; Ferguson E.; Harji D.; Maxwell-Armstrong C.; Macdermid E.; Acheson A.G.; Steele R.J.C.; Fearnhead N.S.

Source
Colorectal Disease; 2018

Publication Type(s)
Article In Press

Database
EMBASE

Available at Colorectal Disease from Wiley Online Library Medicine and Nursing Collection 2018 - NHS Available at Colorectal Disease from Available to NHS staff on request from UHL Libraries & Information Services (from NULL library) - click this link for more information Local Print Collection [location] : UHL Libraries On Request (Free).

Available at Colorectal Disease from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

Abstract

Aim: Colorectal surgeons regularly make the decision to anastomose, defunction or form an end colostomy when performing rectal surgery. This study aimed to define personality traits of colorectal surgeons and explore any influence of such traits on the decision to perform a rectal anastomosis. Method: Fifty attendees of The Association of Coloproctology of Great Britain and Ireland 2016 Conference participated. After written consent, all underwent personality testing; alexithymia (inability to understand emotions), type of thinking process (intuitive versus rational) and personality traits (extraversion, agreeableness, openness, emotional stability, conscientiousness). Questions were answered regarding anastomotic decisions in various clinical scenarios and results analysed to reveal any influence of the surgeon’s personality on anastomotic decision. Results: Participants were: male (86%), consultants (84%) and based in England (68%). Alexithymia was low (4%) with 81% displaying intuitive thinking (reflex, fast). Participants scored higher in emotional stability (ability to remain calm) and conscientiousness (organized, methodical) compared with population norms. Personality traits influenced the next anastomotic decision if; surgeons had recently received criticism at a departmental audit meeting; were operating with an anaesthetist that was not their regular one; or there had been no anastomotic leaks in their patients for over 1 year. Conclusion: Colorectal surgeons have specialty relevant personalities that potentially influence the important decision to anastomose and could explain the variation in surgical practice across the UK. Future work should explore these findings in other countries and any link of personality traits to patient-related outcomes.

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58. Otitis externa in secondary care: A change in our practice following a full cycle audit

Authors
Liu Z.; Slim M.A.M.; Scally C.

Source
International Archives of Otorhinolaryngology; Jul 2018; vol. 22 (no. 3); p. 250-252

Abstract
Introduction Patients presenting with otitis externa are a common thing in otolaryngology units. However, the practice has not been standardized due to a lack of consensus over the management of this condition in secondary care. The National Institute for Health and Care Excellence (NICE) guideline has been published targeting the general practitioners, but it may be relevant in cases of hospital first-time attenders. Objective To conduct an audit of the investigative and prescription practice for hospital first-time attenders in our department against the NICE guideline for otitis externa. Methods The case notes of the patients presenting with otitis externa were reviewed. The data collation included the performance of ear swabs and choice of eardrops. Results An initial audit showed that ear swabs were sent in 14 out of 19 cases, of which 11 grew either Pseudomonas aeruginosa or Staphylococcus aureus (organisms that are sensitive to empirical treatment). A re-audit showed higher adherence to NICE recommendations, with ear swabs sent in only 3 out of 25 cases. The initial audit also demonstrated Sofradex (Sanofi-Aventis, Paris, France) as the most popular eardrop. Following our recommendation, the re-audit showed that Betnesol-N (GSK, Brentford, UK) was administered in 24 out of 25 cases. Conclusion We recommend Betnesol-N due to its cost-effectiveness. Ear swabs should be reserved for refractory cases only. Posters and email reminders are effective means of disseminating information within the hospital.

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59. Major incident triage and the implementation of a new triage tool, the MPTT-24

Authors
Vassallo J.; Wallis L.A.; Smith J.E.

Source
Journal of the Royal Army Medical Corps; May 2018; vol. 164 (no. 2); p. 103-106

Abstract
INTRODUCTION: The Modified Physiological Triage Tool (MPTT) is a recently developed primary triage tool and in comparison with existing tools demonstrates the greatest sensitivity at predicting need for life-saving intervention (LSI) within both military and civilian populations. To improve its applicability, we proposed to increase the upper respiratory rate (RR) threshold to 24 breaths per minute (bpm) to produce the MPTT-24. Our aim was to conduct a feasibility analysis of the proposed MPTT-24, comparing its performance with the existing UK Military Sieve.METHOD: A retrospective review of the Joint Theatre Trauma Registry (JTTR) and Trauma Audit Research Network (TARN) databases was performed for all adult (>18 years) patients presenting between 2006-2013 (JTTR) and 2014 (TARN). Patients were defined as priority one (P1) if they received one or more LSIs. Using first recorded hospital RR in isolation, sensitivity and specificity of the >=24bpm threshold was compared with the existing threshold (>=22bpm) at predicting P1 status. Patients were then categorised as P1 or not-P1 by the MPTT, MPTT-24 and the UK Military Sieve.RESULTS: The MPTT and MPTT-24 outperformed existing UK methods of triage with a statistically significant (p<0.001) increase in sensitivity of between 25.5% and 29.5%. In both populations, the MPTT-24 demonstrated an absolute reduction in sensitivity with an increase in specificity when compared with the MPTT. A statistically significant difference was observed between the MPTT and MPTT-24 in the way they categorised TARN and JTTR cases as P1 (p<0.001).CONCLUSIONS: When compared with the existing MPTT, the MPTT-24 allows for a more rapid triage assessment. Both continue to outperform existing methods of primary major incident triage and within the military setting, the slight increase in undertriage is offset by a reduction in overtriage. We recommend that the MPTT-24 be considered as a replacement to the existing UK Military Sieve.

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60. Cost savings from simple interventions to reduce unnecessary urinary investigations

Authors
Viney R.; Mansour D.J.
61. Modifiable risk factors for preterm brain injury

**Authors**  
Ramachandran A.; Nair M.

**Source**  
Paediatrics and Child Health (United Kingdom); 2018

**Publication Date**  
2018

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EMBASE

**Abstract**  
In the last decade preterm birth rates have continued to rise in line with improving neonatal care. Unfortunately rates of severe disability have remained static. National benchmarking of key outcomes shows significant variations in adaptation of best practices across the United Kingdom (UK). While emerging technologies give us a glimpse of fascinating possibilities, widespread adoption of evidence-based interventions should remain a priority. In this article we have attempted to outline mechanisms of preterm brain injury and identify the most promising strategies currently available to minimize it. Quality improvement strategies (QI) that can help perinatal teams adopt best practices and promising new therapies are discussed.

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62. A cross sectional survey of the UK public to understand use of online ratings and reviews of health services

**Authors**  
van Velthoven M.H.; Powell J.; Atherton H.

**Source**  
Patient Education and Counseling; Sep 2018; vol. 101 (no. 9); p. 1690-1696

**Publication Date**  
Sep 2018

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**Database**  
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**Abstract**  
Objectives: To identify the self-reported behaviour of the public in reading and writing online feedback in relation to health services. Methods: A face-to-face cross-sectional survey of a representative sample of the UK population. Descriptive and logistic regression analyses were undertaken to describe and explore the use of online feedback. Results: 2036 participants were surveyed, and of 1824 Internet users, 42% (n = 760) had read online health care feedback and 8% (n = 147) had provided this feedback in the last year. People more likely to read feedback were: younger, female, with higher income, experiencing a health condition, urban dwelling, and more frequent internet users. For providing feedback, the only significant association was more frequent internet use. The most frequent reasons for reading feedback were: finding out about a drug, treatment or test; and informing a choice of treatment or provider. For writing feedback they were to: inform other patients; praise a service; or improve standards of services. 94% had never been asked to leave online feedback.

Conclusion: Many people read online feedback from others, and some write feedback, although few are encouraged to do so. Practice implications: This emerging phenomenon can support patient choice and quality improvement, but needs to be better harnessed.

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63. Age cannot wither her? - NCEPOD at 30

**Authors**  
Goodwin A.P.L.; Wilkinson K.A.

**Source**  
Anaesthesia; Aug 2018; vol. 73 (no. 8); p. 931-934

**Publication Date**  
Aug 2018

**Publication Type(s)**  
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**Abstract**  
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Available at Anaesthesia from Available to NHS staff on request from UHL Libraries & Information Services (from NULJ library) - click this link for more information Local Print Collection [location]: British Library via UHL Libraries - please click link to request article.
64. Maternal deaths from hypertensive disorders: lessons learnt

Authors
Nyflot L.T.; Vangen S.; Ellingsen L.; Yli B.M.; Oian P.

Source
Acta Obstetricia et Gynecologica Scandinavica; Aug 2018; vol. 97 (no. 8); p. 976-987

Publication Date
Aug 2018

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EMBASE

Abstract
Introduction: Hypertensive disorders of pregnancy have been the most frequent cause of maternal death in Norway since 1996 and are strongly associated with substandard care. In the UK, the number of maternal deaths due to hypertensive disorders has decreased drastically due to the implementation of updated guidelines, indicating a potential for reducing the number of deaths in other countries as well. Through audits of maternal deaths, we aim to prevent future deaths from hypertensive disorders in pregnancy by identifying suboptimal factors in treatment. Material and methods: Maternal deaths in Norway from 1996 to 2014 were identified through linked registries. The Norwegian Maternal Mortality Audit Group performed all case assessments included in this study, classified the cause of death, evaluated the treatment, and identified suboptimal factors to care in each case. Emphasis was placed on antihypertensive treatment, timing of delivery, stabilization before delivery, and quality of care. Learning points were prepared to improve the treatment of hypertensive disorders of pregnancy. Results: We identified 74 maternal deaths. The maternal mortality rate was 6.5 deaths per 100,000 live births. The most common cause of death was hypertensive disorders (n = 16 deaths). In 14 of these deaths (87%), the audit group concluded that improvements to care could have made a difference to the outcome. Conclusions: In 1996-2014, hypertensive disorders were the most common cause of maternal death in Norway. Our study indicates that such deaths can be prevented by improvements in antihypertensive treatment and the timing of delivery.

65. The Improving Global Health fellowship: A qualitative analysis of innovative leadership development for NHS healthcare professionals

Authors
Monkhouse A.; Sadler L.; Boyd A.; Kitsell F.

Source
Globalization and Health; Jul 2018; vol. 14 (no. 1)

Publication Date
Jul 2018

Publication Type(s)
Article

Database
EMBASE

Abstract
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Abstract

Background: The importance of leadership development in the early stages of careers in the NHS has been highlighted in recent years and many programmes have been implemented which seek to develop leadership skills in healthcare professionals. The Improving Global Health (IGH) Fellowship scheme is one such programme, it provides a unique leadership development opportunity through an overseas placement with a focus on quality improvement work. This evaluation examines the impact of completing an IGH Fellowship on the career and leadership development of participants, who are referred to as Fellows. Methods: Fellows who had returned from overseas placement between August 2008 and February 2015 were invited to complete an anonymised online questionnaire, which collected information on: demographic details, motivations for applying to the programme, leadership development and the impact of the IGH Fellowship on their career. Fifteen semi-structured interviews were conducted to further explore the impact of the programme on Fellows’ leadership development and career progression. Interview transcripts were manually coded and underwent thematic content analysis. Results: The questionnaire had a 67% (74/111) response rate. The number of fellows who self-identified as a leader more than doubled on completion of the IGH Fellowship (24/74 pre-fellowship versus 58/74 post-fellowship). 74% (55/74) reported that the IGH Fellowship had an impact upon their career, 35 of which reported that the impact was “substantial”. The themes that emerged from the interviews revealed a personal development cycle that consolidated the fellows’ interests and values whilst enhancing their self-efficacy and subsequently impacted positively upon their career choices. Three interviewees expressed frustration at the lack of opportunity to utilise their new skills on returning to the United Kingdom (UK). Conclusions: The IGH Fellowship successfully empowered healthcare professionals to self-identify as leaders. Of the 45/74 respondents who commented on the impact of the IGH Fellowship on their career, 41/45 comments were positive. The fellows described a process of experiential learning, reflection and evolving cultural intelligence, which consolidated their interests and values. The resultant increase in self-efficacy empowered these returned fellows in their choice of career.

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66. Single centre experience with Allium and Uventa covered ureteric stents for the management of ureteric strictures and injuries

Authors
Rogers A.; Suntharasivam T.; Thomas D.; Rix D.; Haslam P.; Williams R.; Shaw M.

Source
Journal of Clinical Urology; May 2018; vol. 11 (no. 3); p. 165

Abstract
Aims: To describe our first 12-month experience of using covered ureteric stents for managing ureteric strictures and leak. Methods: Covered, self-expanding, large calibre ureteric stents (Allium and Uventa) were introduced in September 2015 and scrutinised with prospective audit to assess efficacy and outcome. Insertion was performed after balloon dilatation, if necessary. Follow-up included routine biochemistry, radiological imaging and clinical review. Median follow-up was seven months. Results: Twenty-one patients had 26 stents inserted. Twenty-four stents were placed retrogradely while two were placed antegradely, all with interventional radiology. Fourteen ureters had benign disease and 12 malignancy; eight patients had postoperative ureteric injuries. All five ureteric leaks were successfully treated without the need for nephrostomy. Twenty renal units had previous JJ stents that failed, of which 18 were salvaged. Two patients obstructed with covered stents in-situ due to ureteric reaction just distal to the stent. The stent itself remained patent in all cases. Two stents migrated requiring re-intervention. Ten cases were performed as emergencies and the median length of stay for elective cases was one day. The complication rate was minimal with one 30-day Clavien II (sepsis). Conclusion: To the best of our knowledge very few UK centres utilise these novel covered metal stents. They provide good renal tract drainage and are a useful addition to the armamentarium for the endo-urological management of complex ureteric pathologies. Reduced nephrostomy and stent symptoms/changes improve quality of life. Long-term follow-up data and cost-benefit analysis is clearly required.

67. Audit template using CAD-RADSTM - Computed tomography coronary angiography (CTCA) versus the gold standard of invasive coronary angiography (ICA)

Authors
Abbas A.; Harden S.; Peebles C.; Shambrook J.

Source
Journal of Cardiovascular Computed Tomography; 2018; vol. 12 (no. 1)

Abstract
67. Audit template using CAD-RADSTM - Computed tomography coronary angiography (CTCA) versus the gold standard of invasive coronary angiography (ICA)
### 68. The urology cancer MDT: What can be improved?

**Authors** Warner R.; Green J.; Pottle E.; Taylor C.

**Source** Journal of Clinical Urology; Jun 2018; vol. 11 ; p. 23-24

**Database** EMBASE

**Abstract**

Introduction: Cancer Research UK published a 2017 report on improving the effectiveness of MDTs. We analysed urology cancer MDT members’ responses to questions in comparison to other specialties and identified areas they would like to improve and prioritise. Materials and Methods: Survey invitations were sent to UK MDT members. It comprised questions about the importance of 13 areas, and the extent of implementation. Answers were provided on a six-point scale (1 = not important/never done; 6 = extremely important/always done). Data provided by urology MDT members were examined according to professional group and compared to responses from the other most prevalent cancers: breast, lung and colorectal. Results: In total, 1759/2304 respondents completed the quantitative questions and were included for analyses, including 197 from urology MDT members. Urology MDTs rated the following as being important but not well implemented currently: prioritisation of complex patients, auditing of MDT decisions and having sufficient preparation time allocated within job plans (mean Likert scores for importance were 4.0, 4.7 and 5.4, and implementation were 2.8, 3.2 and 3.1, respectively). Different professional groups within the urology MDTs showed similar agreement on all questions. There was excellent concordance between urology and the other major tumour types for all factors considered. Conclusions: Current practices within urology MDTs are similar to those of the other major cancers in the UK. Key areas for modernisation include how best to identify and prioritise complex cases, improve auditing of decisions, and ensuring adequate preparation time for MDT members.

### 69. Current radiotherapy practice of muscle invasive bladder cancer: Assessment of diagnosis and management within the UK

**Authors** Varughese M.; Treece S.; Drinkwater K.; McAleese J.

**Source** Journal of Clinical Urology; Jun 2018; vol. 11 ; p. 20

**Database** EMBASE

**Abstract**

Background: CT coronary angiography is increasingly used for first line investigation of coronary artery disease (CAD) in patients with typical and atypical angina. With this increasing volume of work it is important to develop robust clinical audit tools to ensure quality. To date within the UK there has been significant work ensuring the lowest appropriate radiation dose in CTCA and national audit evaluating individual centre mean dose as a surrogate for quality. We propose and evaluate an audit tool evaluating report quality. Previous guidelines (NICE CG95) have suggested a pretest probability of greater than 60% incidence of disease is sufficient to indicate catheter angiography. We propose this is an appropriate audit standard for those patients referred for ICA following CTCA. In our institution we use standardised reporting templates including a recognised grading system for stenosis severity (CAD-RADS). This has enabled us to perform a secondary audit analysis evaluating discrepancy between CTCA and ICA. Methods: A retrospective search on Clinical Radiology Information System (CRIS) for patients with CTCA and ICA from July 2015-2017. Patients with ICA before CTCA, assessment for grafts/stents, non diagnostic images and greater than 6 months between CTCA and ICA were excluded. No patients were excluded with tachyarrhythmia or AF, if a CTCA report was documented. Coronary artery disease was considered present if at least one >70% stenosis (or >50% left main stem) was present. Secondary per vessel analysis was also performed to identify discrepancies to facilitate reflective practice. Results: A total of 61 patients underwent both CTCA and ICA (mean age 63 years; 59% male). The average height and BMI were 1.7m and 28 respectively. The average Agaston Calcium score was 584; 7% were diabetic, 15% were smokers and 10% had a family history premature CAD. The prevalence of having at least 1 >70% stenosis was 69%. In a per vessel based analysis, the prevalence of a CAD-RADS 4 or above lesion was 24%. Discrepancies were identified in 26/260 vessels (10.8%) and these were incorporated into the local discrepancy meeting process. Conclusion: This audit template displays a robust reproducible model for assessing prevalence of CAD greater 60% with similar standard used for ICA. It can also be a useful tool in facilitating collective learning from radiology discrepancies and errors, thereby improving patient safety.
Abstract

Introduction: Bladder cancer survival remains unchanged over the last 30 years. Considerable variation across the NHS in the diagnosis and management of bladder cancer is thought to exist. The National Institute for Health and Clinical Excellence (NICE) guidance NG2 and Royal College of Radiology guidelines were used to assess this variation and quality of radiotherapy, to describe current UK practice. Patients and Method: Radiotherapy departments completed one questionnaire for each patient having radiotherapy for muscle invasive bladder cancer (MIBC) within a 16 week period over 2016/2017. Results: Sixty nine percent of radiotherapy centres returned a total of 508 proformas. Treatment intent was radical in 279 patients (56%). Muscle invasive disease was confirmed in at least 74%. Appropriate staging was performed in at least 73% of patients. Cystectomy was discussed with 68% patients but did not proceed in 7% of patients initially planned for it. Neo-adjuvant chemotherapy was administered in 43% of radical patients. The commonest radical radiotherapy schedule was 55Gy/20. Ninety two percent of patients had treatment delivered by at least a 3-D technique. Compensation for bladder motion was made using either ‘plan of the day’ or image guidance in 59% of radical patients. Concurrent radio-sensitisation was administered in 39% of radical patients predominantly using the BC2001, BCON or GemX protocols. Conclusion: This is the first national audit that will define current management of patients undergoing radiotherapy for MIBC. The above data is preliminary, will be updated and linked contemporaneously with the BAUS database and national radiotherapy data set.

70. The contemporary management of traumatic renal injury at a UK major trauma centre

Authors
Georgiades G.; Aldiwani M.; Omar I.; Angel-Scott H.; Vale J.; Mayer E.

Source
Journal of Clinical Urology; Jun 2018; vol. 11; p. 67-68

Publication Date
Jun 2018

Publication Type(s)
Conference Abstract

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EMBASE

Abstract

Introduction: With the introduction of the Major Trauma Centre (MTC) network, there has been an increased exposure to renal injury; commonly in conjunction with polytrauma. Conservative management and advances in interventional radiology (IR) methods, reduces the rate of surgical exploration and preserves injured kidneys. Aims: To analyse the success of contemporary management of renal injury following trauma in our MTC. Materials and Methods: The prospectively maintained Trauma Audit and Research Network (TARN) database was interrogated to identify patients with urinary tract injuries between January 2014 and November 2016. Patients' records and imaging were reviewed to identify injury grades, interventions, outcomes and follow up. Results: Renal injury was identified in 60 out of 78 patients with a urinary tract injury. Male to female ratio was 51:9. Average age was 37.5+/−17.36 (1.5-94.6) years. The majority sustained blunt trauma 80% (N=48) compared to 20% penetrating (N=12). Injuries were; 12 (20%) grade 1; 11 (18.3%) grade 2; 17 (28.3%) grade 3; 12 (20%) grade 4; 5 (8.3%) grade 5 according to American Association for the Surgery of Trauma (AAST) scale. Early renal intervention occurred in 10 patients (16.6%), of which, 5 were managed with IR exclusively, 2 underwent open renal repair and 1 ureteric stenting. Emergency nephrectomy was performed in 2 patients (3.3%); both of whom died from extensive polytrauma. Overall 30-day mortality was 15% (n=9). Conclusions: Even for haemodynamically unstable injuries, IR techniques were successful. Emergency nephrectomy remains a rare event even with polytrauma and laparotomy for associated injuries.

71. Detection and management of hyperglycaemia in oncology patients receiving systemic anti-cancer therapy

Authors
Morrison L.; Pierce R.; Gillmore R.

Source
Annals of Oncology; Jun 2018; vol. 29

Publication Date
Jun 2018

Publication Type(s)
Conference Abstract

Database
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Source
Journal of Clinical Urology; Jun 2018; vol. 11; p. 67-68

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Introduction: With the introduction of the Major Trauma Centre (MTC) network, there has been an increased exposure to renal injury; commonly in conjunction with polytrauma. Conservative management and advances in interventional radiology (IR) methods, reduces the rate of surgical exploration and preserves injured kidneys. Aims: To analyse the success of contemporary management of renal injury following trauma in our MTC. Materials and Methods: The prospectively maintained Trauma Audit and Research Network (TARN) database was interrogated to identify patients with urinary tract injuries between January 2014 and November 2016. Patients' records and imaging were reviewed to identify injury grades, interventions, outcomes and follow up. Results: Renal injury was identified in 60 out of 78 patients with a urinary tract injury. Male to female ratio was 51:9. Average age was 37.5+/−17.36 (1.5-94.6) years. The majority sustained blunt trauma 80% (N=48) compared to 20% penetrating (N=12). Injuries were; 12 (20%) grade 1; 11 (18.3%) grade 2; 17 (28.3%) grade 3; 12 (20%) grade 4; 5 (8.3%) grade 5 according to American Association for the Surgery of Trauma (AAST) scale. Early renal intervention occurred in 10 patients (16.6%), of which, 5 were managed with IR exclusively, 2 underwent open renal repair and 1 ureteric stenting. Emergency nephrectomy was performed in 2 patients (3.3%); both of whom died from extensive polytrauma. Overall 30-day mortality was 15% (n=9). Conclusions: Even for haemodynamically unstable injuries, IR techniques were successful. Emergency nephrectomy remains a rare event even with polytrauma and laparotomy for associated injuries.
Abstract

Introduction: Hyperglycaemia is a significant cause of morbidity in cancer patients accounting for up to 5% of emergency oncology admissions (1). The incidence of hyperglycaemia in non-diabetic patients receiving anti-cancer therapy has been shown to be as high as 11.6% (2). One significant factor is the high doses of steroids administered either as part of the systemic anti-cancer treatment to control nausea and vomiting, or to palliate other cancer-related symptoms such as pain or anorexia. Patients with gastro-intestinal (GI) malignancies, in particular, often receive high doses of steroids as part of their chemotherapy regimens eg for bowel cancer FOLFOX, FOLFIRI and FOLFOXIRI treatments, platinum-containing regimes for patients with upper GI cancers and for the pancreas population FOLFIRINOX treatments. There is currently no consensus regarding blood glucose level (BGL) monitoring in patients receiving anti-cancer treatments. We therefore carried out a prospective audit aiming to identify the prevalence of abnormal blood sugars using random capillary blood glucose measurements. Methods: During a three-week period, all patients attending the oncology outpatient clinic for systemic anti-cancer treatments had their blood sugar checked using a capillary blood glucose machine. The rationale for using BGL is that it can be more reliable than HBA1C in patients with anaemia or in those who have recently been commenced on steroids (3). Blood glucose diagnostic cut off figures were used as per diabetes UK guidelines for normal, borderline diabetic, diabetic values. Information on primary tumour type, anti-cancer treatment, cycle number, steroid dose and pre-existing diabetic diagnosis were collected. Results: A total of 166 patients had their BGL checked during the time period. 18 (11%) had a blood sugar diagnostic of diabetes mellitus (DM), 25 (15%) had a borderline blood sugar and 123 (74%) patients had normal blood sugars. Of the 43 patients with an abnormal result 24 (56%) were NOT known to have diabetes. Furthermore, in the group with blood sugars diagnostic of diabetes 4 (22%) were NOT known to be diabetic and in the borderline group 20 (80%) were NOT known to have diabetes. One patient was admitted to hospital as a direct result of the BGL measurement during this audit. The highest proportion of abnormal results was in the GI cancer group (24% of the total cohort). Within this cohort 20% had malignancies of pancreatic origin and 80% were colorectal in origin. Treatment regimens included FOLFOX (80%) and FOLFIRI (20%). Conclusion: 10 (27%) GI patients and 43 (25.8%) of all oncology patients tested had abnormal blood sugars showing either high risk of developing or consistent with a diagnosis of DM. All of these patients were receiving steroids as part of their anti-cancer treatments. NICE advocate frequent monitoring of all patients on high dose steroids. We suggest that routine BGL monitoring of all patients on systemic anti-cancer therapy and early liaison with the local diabetes team could prevent unnecessary hospital admission and reduce associated morbidity. As well as one direct admission during this audit, 9 oncology patients were admitted to our unit over a twelve-month period with complications related to hyperglycaemia.

72. Anticoagulation therapy in patients with stroke and atrial fibrillation: A registry-based study of acute stroke care in Surrey, UK

Authors
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Abstract

Introduction: Because of their high risk of stroke, anticoagulation therapy is recommended for most patients with atrial fibrillation (AF). The present study evaluated the use of anticoagulants in the community and in a hospital setting for patients with AF and its associations with stroke. Methods Patients admitted with stroke to four major hospitals in County of Surrey, England were surveyed in the 2014-2016 Sentinel Stroke National Audit Programme. Descriptive statistics was used to summarise subject characteristics and ++ test to assess differences between categorical variables. Results A total of 3309 patients, 1656 men (mean age: 73.1 years +/- SD 13.2) and 1653 women (79.3 years +/- 13.0) were admitted with stroke (83.3% with ischaemic, 15.7% haemorrhagic stroke and 1% unspecified). AF occurred more frequently (++ 2 =62.4; p<0.001) among patients admitted with recurrent (30.2%) rather than with first stroke (17.1%). There were 666 (20.1%) patients admitted with a history of AF, among whom 304 (45.3%) were anticoagulated, 279 (41.9%) were untreated and 85 (12.8%) deemed unsuitable for anticoagulation. Of the 453 patients with history of AF admitted with a first ischaemic stroke, 138 (37.2%) were on anticoagulation and 41 (49.6%) were not (++ 2 = 6.3; p=0.043) and thrombolysis was given more frequently for those without prior anticoagulation treatment (16.1%) or unsuitable for anticoagulation (23.6%) compared with those already on anticoagulation treatment (8.3%; ++ 2 =10.0; p=0.007). Of 2643 patients without a previous history of AF, 171 (6.5%) were identified with AF during hospitalisation. Of patients with AF who presented with ischaemic stroke who were not anticoagulated or deemed unsuitable for anticoagulation prior to admission, 91.8% and 75.0%, respectively, were anticoagulated on discharge. Conclusions The study highlights an existing burden for patients with stroke and reflects inadequate treatment of AF which results in an increased stroke burden. There is significant scope to improve the rates of anticoagulation.

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73. An audit of urological MDT decision making in the South West of England

Authors: Hounsome L.; Verne J.; Persad R.; Gillatt D.; Oxley J.; Bahl A.; Macdonagh R.; Graham J.; Pocock R.

Source: Journal of Clinical Urology; Jul 2018; vol. 11 (no. 4); p. 254-257

Publication Date: Jul 2018

Database: EMBASE

Abstract: Objective: The formation of multidisciplinary teams (MDTs) was formalised for urological cancer services by the National Institute for Health and Care Excellence (NICE) in the 2002 Improving Outcomes in Urological Cancer guidance. This project aimed to assess the variability of MDT recommendations when presented with the same patient. It covered the type and grade of tumour, recorded stage, treatment recommendations and whether clinical trials were considered.

Materials and methods: Anonymised details of 10 patients were sent to South West Trust MDTs in two tranches. Details included age, clinical history, haematology and biochemistry results, digital radiology, and pathology text. A panel of representative urologists and urological oncologists from the region decided on optimal treatment and key points of management decisions.

Results: The MDTs were not consistent in decision making. This agrees with a previous survey of urologists which also showed inconsistent decision making, and under-use of clinical cues. Some decisions contradicted NICE guidelines in force at the time. Conclusions: MDTs are now an instrumental, integrated part of cancer management. It is vital for assurance of best patient care and best outcomes that the MDT considering and planning treatment is fully functional and well informed on the evidence base, with effective communications. This audit suggests that this is not the case. The Oxford Centre for Evidence-based Medicine - Levels of Evidence is not applicable to this study.

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74. UK renal registry 20th annual report: Chapter 10 2016 multisite dialysis access audit in England, Northern Ireland and Wales and 2015 peritoneal dialysis one year follow-up: National and centre-specific analyses

Authors: Hole B.; Magadi W.; Steenkamp R.; Fluck R.; Kumwenda M.; Wilkie M.

Source: Nephron; Jul 2018; vol. 139; p. 253-272

Publication Date: Jul 2018

Database: EMBASE

Abstract: In 2016, 55 of 62 centres in England, Wales and Northern Ireland returned data on first access for 4,564 incident haemodialysis (HD) and 1,246 incident PD recipients. Of these 5,810 incident patients, 50% started dialysis with definitive access: 21.5% started PD, 28.5% started HD with an arteriovenous fistula (AVF) or graft (AVG), 28.4% with a tunnelled line (TL) and 21.7% with a non-tunnelled line (NTL). Wide variation in definitive access use (defined as primary AVF, AVG or PD) was apparent between centres. Sixteen centres achieved the 60% target for AVF/AVG use amongst incident HD recipients. Seventeen centres achieved the 80% target for AVF/AVG/PD use amongst prevalent dialysis recipients. Timely presentation to a nephrologist and referral to a dialysis access surgeon remained key determinants of the likelihood of definitive access at dialysis initiation For late-presenting patients, definitive access 90 days after initiating dialysis ranged between 42.9% and 0.0% by centre, implying variation in the responsiveness of dialysis access pathways. For centres returning data on one-year PD access outcomes, 70.7% of patients starting PD continued to use this modality or have been transplanted one year later. The mean one-year PD catheter failure rate was 18.4%. This report demonstrates wide variation in practice between centres across several domains in the provision of dialysis access.

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75. UK renal registry 20th annual report: Chapter 8 biochemical variables in UK adult dialysis patients in 2016: National and centre-specific analyses

Authors: Pyart R.; Casula A.; Nicholas J.; Dawnay A.

Source: Nephron; Jul 2018; vol. 139; p. 191-240

Publication Date: Jul 2018

Database: EMBASE

Abstract: In 2016, 55 of 62 centres in England, Wales and Northern Ireland returned data on first access for 4,564 incident haemodialysis (HD) and 1,246 incident PD recipients. Of these 5,810 incident patients, 50% started dialysis with definitive access: 21.5% started PD, 28.5% started HD with an arteriovenous fistula (AVF) or graft (AVG), 28.4% with a tunnelled line (TL) and 21.7% with a non-tunnelled line (NTL). Wide variation in definitive access use (defined as primary AVF, AVG or PD) was apparent between centres. Sixteen centres achieved the 60% target for AVF/AVG use amongst incident HD recipients. Seventeen centres achieved the 80% target for AVF/AVG/PD use amongst prevalent dialysis recipients. Timely presentation to a nephrologist and referral to a dialysis access surgeon remained key determinants of the likelihood of definitive access at dialysis initiation For late-presenting patients, definitive access 90 days after initiating dialysis ranged between 42.9% and 0.0% by centre, implying variation in the responsiveness of dialysis access pathways. For centres returning data on one-year PD access outcomes, 70.7% of patients starting PD continued to use this modality or have been transplanted one year later. The mean one-year PD catheter failure rate was 18.4%. This report demonstrates wide variation in practice between centres across several domains in the provision of dialysis access.

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Abstract

59.9% of haemodialysis (HD) patients and 58.7% of peritoneal dialysis (PD) patients achieved the Renal Association (RA) audit measure for phosphate (<1.7 mmol/L). 40.1% of HD and 41.3% of PD patients had a serum phosphate above the RA audit standard (>=1.7 mmol/L). Simultaneous control of all three parameters (calcium, phosphate and parathyroid hormone (PTH)) within current target ranges was achieved by 27.3% of HD and 33.2% of PD patients. 78.7% of HD and 79.7% of PD patients had adjusted calcium in the recommended target range of 2.2-2.5 mmol/L. 55.2% of HD and 60.3% of PD patients had phosphate between 1.1-1.7 mmol/L. 58.3% of HD and 65.7% of PD patients had a serum PTH between 16-72 pmol/L. 17.9% of HD and 13.4% of PD patients had a serum PTH > 72 pmol/L. 62.2% of HD and 80.7% of PD patients achieved the audit measure for bicarbonate (18-24 mmol/L for HD patients and 22-30 mmol/L for PD patients). 84.1% of HD patients (for whom data were available) had pre-dialysis potassium between 4.0-6.0 mmol/L.

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76. UK renal registry 20th annual report: Introduction

Authors: Evans K.; Pyart R.; Steenkamp R.; Whitlock T.; Stannard C.; Gair R.; McCann J.; Slevin J.; Medcalf J.; Caskey F.
Source: Nephron; Jul 2018; vol. 139 ; p. 1-11
Publication Date: Jul 2018
Publication Type(s): Review
Database: EMBASE

Available at Nephron - this link for more information Local Print Collection [location]: British Library via UHL Libraries - please click link to request article.

77. Facilitating local treatment with NHS England funded drugs: Using network on-call referral service (NORSe) in dermatology for funding approval via designated specialist centre

Authors: Lovgren M.-L.; Velangi S.; Chua S.-L.; Martin-Clavijo A.; Lewis H.; Chaudhri F.
Source: British Journal of Dermatology; Jul 2018; vol. 179 ; p. 75-76
Publication Date: Jul 2018
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Database: EMBASE

Available at British Journal of Dermatology - this link for more information Local Print Collection [location]: British Library via UHL Libraries - please click link to request article.

Abstract

Under NHS England national guidance, using adalimumab for hidradenitis suppurativa (HS) or rituximab for immunobullous disease (IBD) requires ratification by designated specialized providers. All dermatology secondary care providers review patients with specialized and highly specialized indications. In our region, a Memorandum of Understanding (MoU) enables providers of specialized dermatology to care for patients requiring biologics for HS or IBD. It prescribes the use of the Network On-call Referral Service (NORSe) system for the 11 ‘spoke’ hospitals and 2 tertiary centres (adult and paediatric). NORSe was developed for urgent neurosurgical referrals and replaced written or telephone referrals, allowing secure, two-way communication between Trusts over the Health and Social Care Network. A minimum information set is required and clinical images can be uploaded. Dermatology has adapted this system for the outpatient setting, where referrals are discussed at fortnightly multidisciplinary team meetings. We reviewed all cases referred to our adult specialist centre via NORSe: November 2016-December 2017. We received 28 referrals; 26 HS and 2 IBD cases from 7 Trusts. Of these, 16 (57%) were referred by specialist nurses at a single centre, with the remaining 6 centres referring 12 (43%) cases by consultants (1-3 cases each). Our institution sent a mean 2.3 messages to the referring centre, and 21 (75%) of referrals were approved. All were satisfied with the response speed and outcomes, and 3 of the 4 cases would recommend it as a referral system.

78. Improving dermatological surgery services using a surgical safety audit

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Abstract

We present a multicentre dermatological surgery safety audit, followed by intervention with the introduction of a surgical safety checklist, and re-audit to 'close the loop' showing a transformation in safety and patient care.

In 2008, the World Health Organization (WHO) launched a global patient safety challenge 'Safe Surgery Saves Lives' to address safety issues within the surgical setting. In 2009, the National Patient Safety Agency and National Reporting and Learning System received just over 155,000 reports of patient safety incidents from surgical specialties in England and Wales. Therefore, in 2010, all NHS organizations in England and Wales were required to implement an adapted version of the WHO surgical safety checklist. However, organizations were encouraged to pragmatically assess the relevance of the use of the checklist in their own area of practice. Such a checklist was not implemented for minor dermatological surgery within the outpatient department initially. However, following a 'Never-Event', whereby wrong-site surgery was performed, the dermatology department reassessed the need for this. Audit standards were adapted from the WHO surgical safety checklist, the BAD 'staffing and facilities guidance for skin surgery dermatology services' document, and the BSDS 'Surgical Checklist' document, resulting in 12 main audit standards. Retrospective data collection over a 4-week period of all dermatology surgical patients from eight centres, including community centres and GPSI services referring in to tertiary centres, was performed. Mohs surgery and paediatric surgery were excluded. A total of 127 patients were identified. Results were poor with 0% of the audit standards being recorded in the majority of cases in the operative notes. As a direct result, a multidisciplinary task force was employed to design and implement a bespoke surgical safety checklist (adapted for dermatology interventions) focusing on improving teamwork, communication and patient safety. A prospective, multicentre re-audit was then performed of all dermatology surgical patients over 4 weeks. A total of 209 patients were identified. All audit standard parameters had improved dramatically with adherence to standard ranging from 94% to 100%. An additional resulting action was to introduce a 'huddle' 15 min before every surgical list to confirm that the request form matched the notes and consent form, and to confirm the presence of preconsent, clinical notes, and the surgical checklist for all patients booked on the list. In conclusion, this audit cycle confirms the benefit of the introduction of a bespoke, robust surgical safety checklist for dermatological surgery services.

79. Challenging our view on mutations in female genital melanoma: Should they be grouped together? Experience from a supra-regional melanoma centre

Authors

Wernham A.; Taniere P; Evans M.; Velangi S.

Source

British Journal of Dermatology; Jul 2018; vol. 179 ; p. 15
Abstract

Melanoma of the female genital and anal tract is rare, comprising around 2% of all primary melanoma. While molecular-targeted immunotherapy has contributed to improved outcomes in metastatic cutaneous melanoma, mucosal melanoma has a distinct genetic profile and is associated with a poorer prognosis. Few studies have analysed genital melanoma separately from other mucosal types and very little data has been reported from U.K. centres. The aim of our study was to assess the pattern of molecular alterations among patients referred to our regional centre with anorectal or female genital melanoma. We initially identified all patients with a histologically confirmed diagnosis of vulvar, vaginal and anal melanoma. A retrospective review of all mutational analyses was undertaken for BRAF (COBAS EGF), KIT (Sanger) and NRAS (Pyrosequencing). An internal audit of BRAF showed 95% sensitivity for V600E/K. While the majority were routinely screened for BRAF, not all patients were screened for KIT or NRAS mutations. Twenty-seven patients were identified with vaginal melanoma (avg age 72, 49-95), 34 with vulvar melanoma (avg age 76, 44-93) and 31 with anal melanoma (avg age 71, 37-96, 38.7% men, 61.3% women), referred from 33 separate hospital sites in the U.K. between 2012 and 2017. Of those with vaginal melanoma, 0% had KIT mutation (0/12), 0% BRAF mutation (0/23) and 0% NRAS mutation (0/1). For vulvar melanoma, 17% had KIT mutation (3/18), 2.9% BRAF mutation (1/34) and 0% NRAS mutation (0/3). For anal melanoma, 0% had a KIT mutation (0/15), 6.6% BRAF mutation (2/30) and 0% NRAS (0/3). Our data demonstrate the low level of BRAF, KIT and NRAS mutations seen in our cohort of female genital and anal melanoma, supporting the notion that these subtypes are genetically distinct from cutaneous melanoma. Overall combined BRAF rates in available literature were 12.6% for vulvar melanoma, 4.8% vaginal and 5.3% in anal melanoma, compared with 2.9% vulva, 0% vagina and 6.6% anal in our cohort. Our data concord with the value of KIT testing in vulvar melanoma but not vaginal melanoma as has been noted in other studies. These poor prognostic tumours would benefit from targeted therapeutic options, but due to their distinct genetic profile, current molecular-targeted immunotherapy for cutaneous melanoma are not useful for the majority of these patients. This suggests that new mutations must be identified in this subgroup. This may be possible through entry into future initiatives such as the 100 000 genome project.

80. Folate deficiency in adults with severe atopic eczema: Should we screen and treat before methotrexate? A single centre, retrospective case review

**Authors**
Khan S.; Langan S.; Smith C.; Higgins E.; Sobczynska-Malefora A.

**Source**
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Methotrexate, a folate antagonist, is increasingly used as a systemic therapy for severe atopic eczema. Guidelines (Warren RB, Weatherhead SC, Smith CH et al. British Association of Dermatologists’ guidelines for the safe and effective prescribing of methotrexate for skin disease 2016. Br J Dermatol 2016; 175: 23-44) provide useful advice for methotrexate prescribing in dermatology, however, do not address whether screening for folate deficiency should be performed prior to commencement. In the U.K., variation exists in dermatologist’s practice of co-prescribing folic acid with methotrexate. Methotrexate use in the context of folate deficiency may worsen folate depletion and increases the risk of neurological adverse events. Our practice is to check folate levels prior to methotrexate initiation in the severe eczema clinic, as we believe folate deficiency is common in this cohort. We therefore sought to identify how many patients had folate deficiency and whether routine screening was appropriate. We performed a retrospective case review of 88 adult patients (63 men and 25 women) who had had pre-methotrexate screening blood tests between 2011 and 2016. Our cohort comprised 65 (73.9%) white, 15 (17%) Asian and 8 (9.1%) Afro- Caribbean patients. The majority were under the age of 60 (82.9%). Of the 88 patients screened for serum folate levels (normal range 3-13 ng mL \(^{-1}\)), 25 (28.4%) were deficient. Sixteen patients had been screened for serum vitamin B12 levels (normal range 150-700 ng L \(^{-1}\)) and 7 (43.8%) were found to be deficient. Of these 16, 4 (25%) were deficient in both folate and vitamin B12. Only 2/25 patients (8%) with low folate had associated haematological abnormalities (1 macrocytosis and 1 macrocytic anaemia). We have identified that folate deficiency is relatively common in adult patients with severe atopic eczema and that macrocytosis can be a late manifestation of deficiency (Malefora-Sobczynska A, Gorska R, Pelisser M et al. An audit of transcobalamin (‘Active’ B12) and methylmalonic acid assays for the assessment of vitamin B12 status: application in a mixed patient population. Clin Biochem 2014; 47: 82-86). Deficiency may be due to increased requirements caused by severe inflammatory dermatoses and in some cases dietary restriction. Folate and vitamin B12 deficiencies have similar clinical presentations and are readily reversible with supplementation; which prevents the development of megaloblastic anaemia, cognitive impairment, hyperhomocysteinaemia (a thrombotic risk) and irreversible peripheral neuropathy (Malefora-Sobczynska et al.). Furthermore, both deficiencies often co-exist as they share a similar biochemical pathway. As a result, isolated folate replacement in the context of dual folate and B12 deficiency, can mask symptoms of an underlying B12 deficiency and allow complications to develop. We therefore believe that it is prudent to check both levels and ensure adequate replacement of each nutrient, before methotrexate is administered.

81. Epidemic of (meth)acrylate allergy in U.K. requires routine patch testing

Authors: Rolls S.; Rajan S.; Buckley D.; Shah A.; Bourke J.; Flynn A.M.; Chowdhury M.; Cousen P.; Naido K.; Ghaffar S.; Green C.; Johnston G.; Wilkinson M.; Orton D.; Owen E.; Reckling C.; Stone N.; Thompson D.; Wakelin S.

Source: British Journal of Dermatology

Publication Date: Jul 2018

Abstract: (Meth)acrylates are potent sensitizers and a common cause of allergic contact dermatitis (ACD). The frequency of (meth) acrylic ACD has increased recently with soaring demand for acrylic nails. (Meth)acrylates are not routinely tested in the baseline patch test series in the U.K. and Europe. The European Society of Contact Dermatitis (ESCD) suggests that an allergen might be included in the baseline series when the proportion of consecutively patch tested patients with a positive test to a specific allergen exceeds 0.5-1.0%. Our preliminary retrospective audit in nine U.K. dermatology centres between 2008 and 2015 found the frequency of sensitization to any (meth)acrylate to be a minimum of 1.3%; and to 2-hydroxyethyl methacrylate (2-HEMA) to be 0.7%. Patients had been selectively patch tested to (meth)acrylates based on history of exposure, therefore, the true rate of sensitization to 2-HEMA remains unknown. We performed a prospective multicentre audit, including 2-HEMA [2% in petrolatum (pet.)] in an extended baseline series in 13 U.K. dermatology units during 2017. Patients with a history of (meth)acrylate exposure, or who tested positive to 2-HEMA, were selectively tested with a series of eight (meth)acrylate allergens. A total of 4931 patients were tested, of whom 545 were also tested to the acrylate series. Of 4931 patients, 76 (1.5%) tested positive to 2-HEMA and 116 (2.4%) to at least one (meth)acrylate. Had 2-HEMA been excluded from the baseline series, 21 (0.4% of 4931) (meth)acrylate positive patients would have been missed. The top (meth)acrylates eliciting a positive reaction were 2-HEMA (n = 76; 1.5%); 2-hydroxypropyl methacrylate (n = 48; 1%) and ethyl acrylate (n = 43; 0.9%). We have shown an increase in the number of (meth)acrylate ACD cases identified when 2-HEMA is included in the baseline series, rather than relying on a history of (meth)acrylate exposure. Had 2-HEMA not been added, treatable cases of (meth)acrylate ACD would have been missed. We believe that such patients remain undiagnosed in many U.K. dermatology units. We recommend that 2-HEMA 2% pet. be added to an extended British baseline patch test series. We also suggest a standardized short (meth)acrylate series, including the most popular (meth)acrylates to test positive, which is likely to detect most cases of (meth)acrylate ACD.
82. An audit of the 'You're Welcome Criteria' in a paediatric dermatology department

Authors: Howard E.; Khara S.
Source: British Journal of Dermatology; Jul 2018; vol. 179; p. 164-165
Publication Date: Jul 2018
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Database: EMBASE

Abstract
The health outcomes of young people (defined as individuals under the age of 20) are becoming increasingly recognized as a global health priority. While there have been significant improvements in these outcomes, data from the U.K. indicates that this is occurring at a slow rate and is poor compared with other regions in Europe. The 'You're Welcome Criteria' (YWC) was developed by the Department of Health in 2007 in an attempt to make health care 'young people-friendly'. It sets out a number of principles to ensure health services are appropriate and accessible to young people. This audit assessed the 'young people-friendliness' of a dermatology department in a paediatric hospital by using a 13-question questionnaire based on the YWC. The audit was carried out over 1 month, and 30 questionnaires were completed and used to conduct the analysis. This audit revealed that while the dermatology department excelled in some areas, such as appropriate waiting areas, it also demonstrated areas for improvement, such as having discussions surrounding confidentiality with young people. The young people-friendliness of the department was assessed based on its compliance with the YWC principles. Compliance rates with individual principles ranged from 27% to 87%. This audit is currently being repeated in an adult teaching hospital assessing the care that young people receive following transition into the adult setting and when being diagnosed with new dermatoses under the age of 25.

83. The impact of distractions and interruptions during Cesarean Sections: a prospective study in a London teaching hospital

Authors: Willett M.; Gillman O.; Sewart E.; Muller D.; Shin E.; Nauta M.; Yoong W.
Source: Archives of Gynecology and Obstetrics; Aug 2018; vol. 298 (no. 2); p. 313-318
Publication Date: Aug 2018
Publication Type(s): Article
Database: EMBASE

Abstract
Purpose: During Cesarean Sections, distractions which interrupt task specific activities include auditory, equipment, theatre traffic, and irrelevant communication. Aims of this study were to investigate frequency and types of distractions and to assess impact on patient safety and theatre efficiency. Methods: Prospective observational study in a London hospital in women undergoing elective and emergency Cesarean Sections. Distractions were recorded prospectively in primiparous women having uncomplicated elective and emergency Cesarean Sections over a 4 week period. Level of distraction is categorized as I: no noticeable impact on surgical team; II: >= 1 team member affected; and III: all members affected. Safety outcomes assessed included perioperative complications such as postpartum hemorrhage, organ injury, postsurgical pyrexia (first 48 h), return to theatre, readmissions, and postdelivery anemia < 7 g/dl. Results: Data from 33 elective and 23 emergency cases were collected. Mean number of level II/III distractions/case was 13.20 (+/- 6.93) and number of level II/III distracting events was greater during elective compared to emergency cases (mean 14.91 vs 12.00, p = 0.04). In total, 17.89% of distractions occurred during crucial part of surgery between skin incision and delivery of baby, while delays resulting from level II/III distractions accounted for 11.25% of total operating time. There were no intra- or postoperative complications observed in the cohort of cases. Conclusions: Distractions did not culminate in perioperative complications, but disrupted surgeons' task activity, prolonging mean procedure duration by 26.8%. Recognising sources and effects of distractions will enable measures to be taken to improve theatre productivity and patient safety.

84. Assessing conformity with the emergency cart check and replenish system

Authors: Borg Xuereb K.; Janula M.; Esposito T.
Source: Anaesthesia; Jul 2018; vol. 73; p. 38
Publication Date: Jul 2018
Publication Type(s): Conference Abstract
Database: EMBASE
Abstract

The outcome of cardiac arrest depends on timely and effective cardiopulmonary resuscitation (CPR). Successful in-hospital CPR attempts require well-equipped emergency carts and properly functioning equipment, as well as staff members skilled in performing CPR. This audit aimed to determine whether the emergency carts within Mater Dei Hospital, Malta, met the expected standards. It also aimed to assess foundation doctors’ awareness of the emergency cart check and replenish system. Methods A quantitative, descriptive research design was used to audit contents of the emergency carts. We addressed 45 emergency carts in both in-and outpatient wards chosen at random between January and March 2017. Data collection focused on surveillance and equipment as outlined by the standard operating procedure [1] and Resuscitation Council UK [2]. One hundred questionnaires were distributed among foundation doctors asking for the doctor’s awareness with regards to the emergency cart check and replenish system. Doctors were also asked to describe equipment issues arising during CPRs in which they were directly involved. Results Adequacy of emergency carts was assessed according to 6 criteria defined in Figure 1. Twenty crash carts (44.44%) did not conform to the checklist provided with the most common error being failure to check the cart on a daily basis. Thirty-three carts (73.30%) were deemed inadequate in terms of airway and breathing equipment, lacking basic adjuncts to maintain the airway. Most emergency carts lacked a Mapleson C system. Basic equipment to ensure vascular access including cannulae and syringes lacked in 55.60% (n = 25). Alarmingly, 75.60% (n = 34) of emergency carts were found to have missing or expired fluids. Fifteen carts (33.30%) had expired emergency drugs of which adrenaline 1:10000 preparation was the most common. Eight emergency carts (17.78%) were found to have expired green or white packs. None of the 55 respondents to the questionnaire were aware of a check and replenish system. Equipment issues were reported by 33% (n = 19) of respondents. Discussion Our audit highlighted significant malpractice with regards to emergency cart maintenance. This is being reflected clinically. The results obtained prompted the formulation of a new standard operating procedure issued in early 2018 which we hope will facilitate the maintenance of emergency carts. A re-audit will be performed in March 2018.

85. From inpatient to day case: Sorting stone surgery

Authors
Black B.; Griffiths M.; Kandasamy G.; Graham S.

Source
Anaesthesia; Jul 2018; vol. 73; p. 37

Database
EMBASE

Abstract

Patients undergoing uretoscopic removal of renal stones in the UK have an average hospital stay of 1 day [1]. At Whippys Cross University Hospital we sought to use a multidisciplinary approach to convert this procedure from short stay to day case. Minimising disruption to patients and reducing the financial burden of excess inpatient bed days. Methods Initial audit identified pain and postoperative nausea and vomiting (PONV) as factors limiting discharge, and prescribing pathways were developed accordingly. Appropriate day case patients were then identified at pre-operative assessment, based on anaesthetic eligibility for same day discharge and low probability of requiring a catheter postoperatively. Patients were provided with written and verbal information regarding pain management following discharge and when to seek medical attention. Where no contraindications existed, adherence to a standardised intra-operative, postoperative and discharge drug regime was encouraged. Re-audit was conducted twice following implementation to assess for sustained change. Results Average length of stay was reduced from 25.5 to 14.6 h. The proportion of procedures conducted as day cases increased from 25-85%, representing a yearly saving of 26,040 [2]. Average pain and PONV (scored on scales 0-3) were reduced from 2.06 to 0.83 and 0.75 to 0.44, respectively. Follow-up telephone calls to patients postoperatively found that none had felt the need to seek medical advice within 48 h of discharge. Discussion Uretoscopic removal of renal stones has been converted to a day case procedure Whippys Cross Hospital. Appropriate multidisciplinary stakeholder engagement, standardisation of intra-and postoperative care and clear communication with patients has resulted in better patient experience and financial savings for the Trust.

86. Launching a patient-centred recovery app to assess recovery after weight-loss surgery at a specialist bariatric centre

Authors
Shah R.; Ioannidis S.; Pisapati G.; Patel H.; Cone S.; Holding J.; Field C.; Caslake Holding F.
The UCLH Bariatric Centre for Weight Management and Metabolic Surgery is one of the largest bariatric centres in the UK with an international reputation for quality of clinical service. A patient’s ability to resume normal activities after surgery and anaesthesia is an important indicator of a successful peri-operative experience [1]. The Quality of Recovery-15 (QoR-15) is a psychometrically validated questionnaire, which looks at 15 questions in 5 domains of patient-reported health status: pain, physical comfort, physical independence, psychological support and emotional state [2]. We launched a unique mobile software application which integrates the QoR-15 questionnaire, and can be downloaded by patients undergoing bariatric surgery. The aim of this quality improvement project was to assess use of the app to review patient experience and recovery after bariatric surgery. Methods We performed a prospective study over 3 months, inviting patients undergoing bariatric surgery to download our unique mobile app. Each patient was given an explanation on how to download the software, and what specific postoperative areas we would like them to complete over set time points after their surgery. We would also assess patient step counts to aid physical recovery. Following assessment of the data and recovery scores, we presented the results at our departmental audit meeting. Results We invited 60 patients undergoing bariatric surgery at UCLH. Fourteen patients with an iPhone, from a possible 34 (41%), downloaded and completed the pre-operative questionnaire. At point of submission of this abstract, data from 12 patients (86%) who completed scores at all four time points (pre-operatively, and 24 h, 48 h, and 7 days postoperatively) are to be analysed. To date, we have received excellent patient feedback with regards to user-friendliness of the app. Discussion The QoR-15 is a clinically acceptable patient-centred outcome measure. In this quality improvement project, we expanded its use in patients undergoing weight-loss surgery. Our app received excellent feedback from recruited patients. Using different time-points after surgery helps assess individual return to baseline function, and encourages patients to take an active role in their recovery. Our current mobile application is only available to iPhone users, and we plan to offer this to Android users too. We hope that recovery data may help modify anaesthetic techniques, to improve patient experience.
88. Introducing a patient-centred perioperative pathway to improve the quality of major gastric and oesophageal surgery at a specialist cancer centre

**Authors**  
Shah R.; Khaku M.; Bertoja E.; Stewart A.

**Source**  
Anaesthesia; Jul 2018; vol. 73; p. 61

**Publication Date**  
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Conference Abstract

**Database**  
EMBASE

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Available at Anaesthesia from Available to NHS staff on request from UHL Libraries & Information Services (from non-NHS library) - click this link for more information Local Print Collection [location] : British Library via UHL Libraries - please click link to request article.

**Abstract**  
Oesophago-gastric cancer is the fifth most common cancer in the UK, responsible for over 6000 deaths each year [1]. Patients scheduled for curative surgery through oesophago-gastrectomy pose many anaesthetic challenges throughout the peri-operative period due to patient comorbidity, complications from prolonged surgery, one lung ventilation, optimal fluid management with limited cardiac output monitoring, and pain management [2]. Enhanced recovery pathways use a multimodal, refined peri-operative approach to promote recovery, reduce complications and standardise care. Experience in major upper oesophago-gastric surgery has been minimal. University College London Hospital is one of the major specialist oesophago-gastric units in London. We launched a quality improvement project to enhance recovery, refine practice, improve care and patient experience. Methods We performed a retrospective audit to look specifically at peri-operative anaesthetic practice in patients over a 6-month period. Following presentation of our findings, we launched a new upper gastrointestinal pathway and integrated this into our multidisciplinary enhanced recovery mobile software platform and the ‘Peri-operative Quality Improvement Programme’ database. Results Pre-operative practice revealed that 8 (18%) patients were seen by an anaesthetist at pre-operative assessment clinic, 4 (9%) had a surgical risk prediction score performed, and zero received carbohydrate nutrition, gabapentin for analgesia and consent for conduct of anaesthesia. Intra-operative practice revealed a wide range of fluid administration, with zero patients monitored for volume status with non-oesophageal cardiac output devices. By launching a new enhanced recovery pathway, we improved practice in these specific areas. Discussion Enhanced recovery pathways have revolutionised inpatient major surgery using evidence-based peri-operative practice. Use in oesophagogastrectomy surgery is limited. This project demonstrated variability in perioperative care delivered. We introduced a new upper gastrointestinal care pathway targeting specific stages through the patients’ journey. We will continue to electronically re-audit practice prospectively using our enhanced recovery mobile software platform and the ‘Peri-operative Quality Improvement’ database, to improve patient care and safety.

89. Introduction of a standardised postoperative analgesic set for patients undergoing bariatric surgery: Pre and post introduction audit of outcome measures and variations in practice
Bariatric surgical procedures are common, with approximately 5500 cases performed annually in the UK [1]. Our unit performs 400-500 cases per year and introduced a standardised postoperative pathway, however a large variation in analgesic prescribing remained. Analgesia following bariatric surgery presents a unique challenge: reduced area for absorption; changes in gastric acid secretion increase the risk of ulceration with non-steroidal anti-inflammatory drugs (NSAIDs); high sugar content medications, e.g. oral morphine, can cause dumping syndrome; increased incidence of obstructive sleep apnoea leads to a greater sensitivity to respiratory depression with opioids, particularly those which are parenterally administered. Considering these factors, a standardised postoperative bariatric analgesic set was devised, consisting of regular paracetamol and soluble tramadol, with additional tramadol and sublingual buprenorphine if required. To assess effectiveness of this standardised set we evaluated outcome measures and variations in practice before and after introduction.

Methods Baseline data for patients admitted for bariatric surgery was collected for a 4-month period. Following introduction of the analgesic set data were collected for a further 4 months. Outcome data included pain scores, nausea scores and length of stay. Analgesics prescribed (expressed as oral morphine equivalents (OME) for opioids), and route of administration were used to measure variations in practice. Discussion Unwarranted variation in healthcare impacts outcomes and efficiency [2]. There is a lack of evidence to guide analgesic prescribing for bariatric surgical patients [3] and variations in regimes may increase the risk of complications. The introduction of a standardised set at Sunderland led to a reduction in the prescription of potentially harmful NSAIDs and parenteral opioids. A trend toward lower pain scores and shorter length of stay may in part be due to regular analgesia administration following introduction of the set, reflected in the higher post recovery OME. Informal feedback from nursing staff was positive (predictable analgesic plan, reduced time to administer intravenous analgesics) and our next steps will be to measure patient satisfaction with the new analgesic set (Table presented).
91. No need to bare all—improving patient dignity during elective surgery

Authors
Slingo M.; Ward C.
Source
Anaesthesia; Jul 2018; vol. 73 ; p. 85
Publication Date
Jul 2018
Publication Type(s)
Conference Abstract
Abstract
The right to privacy and dignity is a central tenet of patient-centred care within the NHS [1]. However, patients frequently arrive for elective procedures wearing no lower undergarments at all, despite distal operative sites. Many online patient fora exist-discussions about underwear reveal that this is a particular concern. NICE guidance states that theatre-wear should provide necessary access while also considering comfort and dignity [2]. We undertook a study of adult elective surgery to assess what underwear was worn and how to improve patient dignity. Methods This prospective audit was undertaken over one week. Maternity, day surgery unit, and emergency patients were excluded. Underwear options comprised: i) patient’s own; ii) hospital paper underwear; iii) none. ‘Appropriate’ was defined as either: i) paper underwear if surgical access needed; or ii) patient’s own for everything else. Ideal targets were: 100% wear appropriate underwear for the planned operation; 0% wear no undergarments at all. Patients were also randomly selected to complete a ‘patient experience’ survey. Results The audit comprised 101 patients. Figure 1 summarises the results by operative site.

92. Improving emergency laparotomy outcomes in Glasgow Royal Infirmary: A retrospective review

Authors
Rooney H.; Carnie R.; McAdam M.; Byars J.; Garrity K.
In 2011, emergency laparotomy carried with it a high 30-day mortality rate of about 15% nationally. Since its launch in 2013, the National Emergency Laparotomy Audit (NELA) has collected data nationally in England and Wales and shown improvements in patient outcomes and processes of care [1]. The lack of high quality comparative data in Scotland has meant that drawing conclusions about patient care is difficult. The main aim of this project was to establish how Glasgow Royal Infirmary’s (GRI) processes of care and patient outcomes compare with the 9 key NELA standards and reported national outcomes, while using the results to drive improvement locally. Methods A retrospective audit of all emergency laparotomy procedures between June and October 2016 was completed with patients identified via the OPERA theatre system and the surgical logbook for emergency theatres. Inclusion criteria were similar to NELA and data were collected retrospectively using Clinical Portal and PACS systems. Data were input into Microsoft Excel and statistical analysis performed using SPSS. Results A total of 143 emergency laparotomy procedures were identified in 132 patients. The average age was 58.3 years (range 16–93). Forty-three patients were over 70 (32.6% of patients). Twenty-two patients died within 30 days of their emergency laparotomy resulting in a mortality rate of 16.7% over the 5-month period of June to October 2016; and a further 3 patients died in the subsequent 60 days, resulting in a total 90-day mortality of 18.9%. Nine percent of patients had an unplanned return to theatre and the mean length of stay was 23.7 days. A comparison of GRI results with NELA reported results for the 9 key NELA standards is shown in Figure 1. (Figure presented). Discussion These results show that while GRI performs comparably well against some standards, there are several areas for improvement. Pre-operative documentation of mortality risk was poor compared with NELA, and there was minimal input from DME/COTE postoperatively. GRI’s mortality at 30 and 90 days was higher than that in the 3rd NELA report (16.7% and 18.9% compared to 10.6% and 14.5%, respectively). Further work to evaluate the possible reasons for this is being undertaken. We have developed a series of quality improvement projects based on our findings and will continue to work towards the development of an integrated emergency laparotomy patient pathway.

93. Recycling in anaesthetic rooms: Striving for a sustainable environment
Authors N Selvaraju K.; Mittal R.; Nalawaya P.
Source Anaesthesia; Jul 2018; vol. 73 ; p. 108
Abstract
In 2018, we undertook a recycling assessment of anaesthetic rooms at our hospital. The aim was to improve waste management and reduce environmental impact.

Methodology

- A baseline assessment of waste generation was conducted.
- Staff were educated on waste segregation and recycling.
- Posters were displayed in anaesthetic rooms.
- Monitoring of waste segregation was performed.

Results

- An increase in recycling was observed.
- Significant reduction in waste disposal costs.
- Staff and patient satisfaction increased.

Conclusion

- Implementation of a recycling program in anaesthetic rooms is feasible and effective.
- Further steps to improve sustainability are recommended.
Waste disposal from anaesthetic clinical practice contributes a substantial proportion to the economic burden of NHS hospitals [1]. As a part of sustainability drive, we performed a quality improvement project on recyclable waste disposal in anaesthetic rooms. Methods An initial prospective audit was performed for one week in 26 anaesthetic rooms using the Trust waste disposal policy, which was based on appropriate onsite segregation as the standard. The bags were weighed at the end of the working day or before disposal, whichever was early. Consequent to the presentation of the results in the anaesthetic and multiprofessional meetings, the interventions including readvertising the waste disposal guidance posters, and an education campaign of anaesthetic practitioners and anaesthetists was performed. Clear bags for disposal of recyclable waste were introduced into 6 anaesthetic rooms and a re-audit was performed after the interventions in these areas. Results The initial audit revealed that none of the 26 anaesthetic rooms had recyclable bins and the waste was disposed without segregation into tiger bags. The re-audit in the pilot area revealed a total of 33.1 kg of waste was generated in the 6 rooms per week. A median of 22.5 kg (61%) was collected in the clear bags for recycling and 16.3 kg was disposed of in the tiger bags. Both bags had appropriate disposed materials as per guidelines. The tiger bags are costlier to dispose of than the recyclable wastes and this translated into a cost saving of 374.30 per year, if rolled out into all anaesthetic rooms. Discussion The interventions helped to improve the pro environmental behaviours of anaesthetists and anaesthetic practitioners by improving their knowledge of personnel responsibility, which included education about segregation at source and disposal methods [2]. Informal feedback to the specific anaesthetic practitioners along with general feedback to anaesthetists helped improve compliance with recycling. In 2015, the National Audit Office stated that only 24% of NHS waste had been recycled [3]. We demonstrated that the amount of anaesthetic clinical waste being recycled was significantly improved by this project and this can be incorporated into the organisations' long term waste management strategy.

49. An analysis of strain on Scottish intensive care units between 2005 and 2015

Authors Quinn M.; Smyth L.; Smith P.; Cole S.; Wallis C.; Lone N.
Source Anaesthesia; Jul 2018; vol. 73 ; p. 56
Publication Date Jul 2018
Publication Type(s) Conference Abstract
Database EMBASE
Abstract Intensive care is a limited resource with bed occupancy in Scotland routinely above 80% [1]. During periods of high demand on ICU services (ICU strain), patients most suitable for discharge must be discharged to free up beds for new admissions, and unwell patients who are newly admitted demand a high level of ICU resource. There is the potential that increased demands on ICU (ICU strain) may, therefore, cause inappropriate discharge from ICU or adversely affect the outcomes of patients admitted to that ICU. This study analysed the effect of ICU strain on mortality and night time discharge from ICU in patients admitted to Scottish ICUs between 2005 and 2015. Methods This was a retrospective cohort study of 127,075 patients who were admitted to 31 ICUs across Scotland between 2005 and 2015. Data were sourced from the Scottish Intensive Care Audit Group. Metrics used to measure ICU strain were average acuity and average turnover. Average acuity was measured by taking the mean Acute Physiology and Chronic Health Evaluation (APACHE II) score for all patients in an ICU on the day of a patient’s admission. Patient turnover was calculated by measuring the census of an ICU (the total number of patients cared for in 24 h) and standardising it to each individual unit (standardised census). Standardised census is: (mean daily unit census for that ICU that year-daily unit census) divided by the standard deviation of the average daily census for that ICU that year. The primary outcome was in-hospital mortality and the secondary outcome was night time discharge. The association between each outcome and ICU strain metrics were modelled using a multilevel regression to adjust for the effect of confounding variables and the clustering of data between ICUs. Results Standardised census measured on day of admission was not associated with an increase in mortality (OR 1.02 95%CI 1.00, 1.03, p = 0.07), nor was mean APACHE II score (OR 1.00, 95%CI 0.99, 1.02, p = 0.38). Standardised census on the day of discharge was associated with an increase in the rate of discharges from ICU occurring at night (OR 1.22 95%CI 1.21, 2.25, p < 0.0001). Discussion This study showed that standardised census measured on day of discharge is independently associated with ICU night discharge rate. Standardised census on day of admission and discharge is not associated with an increase in mortality.

50. Help...fire!

Authors Parry J.; Jackson G.
Source Anaesthesia; Jul 2018; vol. 73 ; p. 55
Publication Date Jul 2018
Abstract

Fire safety gained a high news profile last year following the tragic events at Grenfell Tower. Several notable fires have occurred in hospitals during the history of the NHS, including the Royal Marsden Hospital fire of 2008, in which one of the authors had first-hand experience [1]. A report in 2009 summarised the issues raised following five hospital fires in a short period of time [2]. In the context of major upcoming building works at our maternity department, we conducted a survey to explore staff awareness of local fire evacuation procedures.

Methods A staff survey was conducted across delivery suites and maternity theatres. Participants were presented with a scenario in which a patient who cannot walk requires evacuation during a fire, before answering the following four questions: i) Where would you evacuate to? ii) If horizontal evacuation is not possible, where is your nearest fire escape? iii) Where is the fire evacuation plan located? iv) Do you know where to find the equipment in A and B (shown photos of sledges and ski slides)? Verbal consent was obtained from all participants and approval granted from the local audit department. Results The table shows correct responses to each question and overall. A total of 52 responders included 25 anaesthetists (of various experience) and 27 non-anaesthetists. The non-anaesthetists were a mix of obstetricians, midwives and theatre staff. Overall the correct response rate was 53%. Of note, the anaesthetists performed worse (44%) than the rest (61%). Discussion Our survey identified poor staff knowledge of fire evacuation procedure, with anaesthetists performing the worst. Anaesthetists work in many different areas of the Trust, which may explain why they are less familiar with fire procedures and exits in individual areas. Many staff assume others will know what to do in the event of a fire but it is important to realise personnel from external organisations (e.g. fire fighters) may have no knowledge of local equipment or routes of evacuation. Major fire events are rare but significant when they do occur. In the event of a fire, the anaesthetist will inevitably be required to make significant decisions about both patient and staff wellbeing, including logistics if evacuation is required. All anaesthetists should make themselves aware of local fire procedures and question whether they know what they would do in the event of a fire (Table presented).

96. Every calorie counts: An audit on the nutritional impact of fasting for clinical procedures in intensive care

Authors
Mallam L.; O’Flynn J.

Source
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Publication Date
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97. No pain no gain! Assessing analgesia following elective caesarean section

**Abstract**

 Patients on ICU frequently undergo procedures that require a period of fasting. Extensive and repeated fasting can contribute to significant nutritional energy deficits that have been shown to be associated with higher ICU mortality and complications [1]. The aim of this preliminary audit was to assess the impact that episodes of prolonged fasting for ITU procedures were having on patients' nutritional status. Methods The audit was performed over a 6-week period on Hammersmith Hospital ICU, London. Department practice on fasting patients for procedures was assessed against Imperial Trust Nutrition Guidelines (2015). A total of 30 events from a group of 20 patients were identified. Results The audit found there to be inconsistent adherence with the 2015 Trust guidelines on fasting time targets pre and post intervention. On average, prior to a procedure, patients were being fasted for 2 h in excess of the recommended time period, whereas post-procedure the excess fasting was an average of 4 h. Overall this contributed to a mean total calorie deficit of 620 kcal per procedure, of which 3.5% (456 kcal) were a result of fasting in excess of the recommended time targets. This corresponded with a mean protein deficit of 34 g per procedure. Discussion While an energy deficit of 620 kcal may not appear significant, when it is placed into context of the ICU it becomes more concerning. Critically ill patients exist in a hypermetabolic and catabolic energy state [2] and are subjected to multiple periods of fasting throughout their admission, and so for them every calorie does count. Studies estimate that 49-70% of patients do not meet their nutritional requirements [3], with many developing significant cumulative nutritional deficits over the course of an ICU admission. Intensive care is a unique and often highly unpredictable clinical environment, and a host of variables can contribute to the development of energy deficits. Patient and staffing factors are critical when deciding on timing of an intervention, and frequently the timing of some procedures (e.g. surgery or angio) is beyond the control of the ICU team, making designated time targets for fasting hard to achieve. The audit identified various areas for improvement; delays in restarting feed post-procedure were a substantial contributor to the deficit, in addition to a lack of team awareness of the fasting protocol.

98. Do bundles, booklets and education STOP-AKI in a district general hospital?

**Abstract**

 Patients on ICU frequently undergo procedures that require a period of fasting. Extensive and repeated fasting can contribute to significant nutritional energy deficits that have been shown to be associated with higher ICU mortality and complications [1]. The aim of this preliminary audit was to assess the impact that episodes of prolonged fasting for ITU procedures were having on patients' nutritional status. Methods The audit was performed over a 6-week period on Hammersmith Hospital ICU, London. Department practice on fasting patients for procedures was assessed against Imperial Trust Nutrition Guidelines (2015). A total of 30 events from a group of 20 patients were identified. Results The audit found there to be inconsistent adherence with the 2015 Trust guidelines on fasting time targets pre and post intervention. On average, prior to a procedure, patients were being fasted for 2 h in excess of the recommended time period, whereas post-procedure the excess fasting was an average of 4 h. Overall this contributed to a mean total calorie deficit of 620 kcal per procedure, of which 3.5% (456 kcal) were a result of fasting in excess of the recommended time targets. This corresponded with a mean protein deficit of 34 g per procedure. Discussion While an energy deficit of 620 kcal may not appear significant, when it is placed into context of the ICU it becomes more concerning. Critically ill patients exist in a hypermetabolic and catabolic energy state [2] and are subjected to multiple periods of fasting throughout their admission, and so for them every calorie does count. Studies estimate that 49-70% of patients do not meet their nutritional requirements [3], with many developing significant cumulative nutritional deficits over the course of an ICU admission. Intensive care is a unique and often highly unpredictable clinical environment, and a host of variables can contribute to the development of energy deficits. Patient and staffing factors are critical when deciding on timing of an intervention, and frequently the timing of some procedures (e.g. surgery or angio) is beyond the control of the ICU team, making designated time targets for fasting hard to achieve. The audit identified various areas for improvement; delays in restarting feed post-procedure were a substantial contributor to the deficit, in addition to a lack of team awareness of the fasting protocol.
Abstract

In England, acute kidney injury (AKI) is associated with up to 100,000 deaths per year, with an estimated cost to the NHS of over 1 billion [1]. AKI development is influenced by many patient, service and environmental factors and is why a solution has proved elusive. Up to 30% of AKI cases in hospital are preventable [2].

We conducted an audit at a district general hospital to assess the effectiveness of a number of AKI interventions over a 2-year period. Methods In September 2015, a number of AKI interventions were implemented. Fluid balance monitoring and prescription were combined into a single fluid booklet. A Trust AKI Bundle was developed and launched. The STOP-AKI acronym (Sepsis, Toxins, Optimise blood pressure & Prevention-AKI) was promoted alongside a staff education drive. In 2016, the NHS England AKI e-alerts system became live. AKI baseline data were collected in June 2016, prior to a new version of the fluid booklet. From June 2017, a monthly audit of AKI cases (30 per month) identified from AKI alerts, was undertaken to assess compliance with AKI and fluid standards [3].

Patient mortality and length of stay data were obtained from Lorenzo electronic patient record. Results Of emergency admissions, 24% had AKI, of which 60% of cases were present on admission. Average mortality from AKI in emergency patients was 17.7% rising to 27.5% in winter 2017. AKI was more prevalent in older (> 65 years) medical patients and was 4 times more common in emergency than elective admissions. Results are summarised in Table 1. Discussion Our audit suggests a mixed effect from AKI interventions since June 2016, with short term positive effects seen following any education drive. No improvement was observed in associated mortality with a spike seen in winter 2017. Staff awareness of AKI has improved with good consultant involvement within 24 h of first alert. Compliance with the AKI bundle was poor. However, clinically many bundle recommendations, including STOP-AKI were done, even if the bundle itself was not physically filled in. This is reassuring, but highlights issues faced with bundle fatigue. Future work will now focus on refining our AKI bundle, continuing staff education and working closely with the community to produce a combined strategy aimed at bringing down AKI incidence (Table presented).
The incidence of traumatic injury in the elderly is rising [1]. Data released by TARN suggest low level falls are the leading cause of injury in the elderly [1]. A multidisciplinary group has produced guidelines for elderly trauma [2]. The Whittington Hospital is part of the London Major Trauma System. Methods Over 2 weeks in June 2017, a retrospective audit of trauma admissions in the over 70s was conducted. An audit tool was created, reflecting different stages of the patient pathway. In addition, falls prevention and trauma management guidelines and were escalated to medical staff. No women required escalation to critical care. Discussion Our local MEWS chart appears effective at identifying postnatal women at risk of deterioration and ensuring prompt review and treatment. We run regular departmental updates for staff on our MEWS system, which has improved the accuracy of recording and scoring observations compared to previous audits. We have concerns that the implementation of a different, national obstetric MEWS chart may not have any benefit over locally developed systems, that are familiar to, and designed in conjunction with, the clinical staff that use them.

100. Improving the patient pathway: An audit of elderly trauma management in a busy London teaching hospital

Murali M.; Bolton L.; Bhatkal S.
Anaesthesia; Jul 2018; vol. 73; p. 53

The introduction of a modified early obstetric warning system (MEWS) to track maternal physiological parameters and assist early recognition and treatment of the acutely unwell parturient has been recommended following reviews of cases demonstrating that the early physiological signs of severe maternal illness have gone undocumented and unrecognised [1, 2]. Locally developed MEWS charts have been widely implemented; however, work is ongoing to develop a national chart [Personal Communication. SPSP: Maternity and Children Quality Improvement Collaborative Meeting. 27th September 2017]. We introduced an obstetric MEWS document within NHS Lothian in 2010, which combines an observation chart and an escalation protocol. A protocol for the frequency of observations of postnatal woman was introduced to supplement this in 2015. The aim of this work was to examine the accuracy of recording MEWS score and to determine if our chart was ’fit for purpose’. Methods The case notes of 50 parturients were randomly selected from those who delivered in our Labour Ward during October 2017. The notes were retrospectively reviewed for the presence of a MEWS chart, mode of delivery and significant clinical issues in the postnatal period. Data were collected from the observation chart to determine the accuracy of the MEWS score recorded, and the compliance of the frequency of observations with our departmental protocol, during the first 24 postnatal hours. Results A completed MEWS chart was present in 48 of the 50 case notes reviewed. Thirty-two charts had observations recorded at a frequency compliant with our departmental protocol; with 15 charts non-compliant (7 lower uterine segment caesarean section; 8 spontaneous vaginal delivery). In total, 297 sets of observations were performed with 287 (97%) having a MEWS score recorded; 261 (91%) of these scores were calculated accurately. Of the 5 patients who had a MEWS score of <= 3 recorded, all had the frequency of their observations increased in line with guidelines and were escalated to medical staff. No women required escalation to critical care. Discussion Our local MEWS chart appears effective at identifying postnatal women at risk of deterioration and ensuring prompt review and treatment. We run regular departmental updates for staff on our MEWS system, which has improved the accuracy of recording and scoring observations compared to previous audits. We have concerns that the implementation of a different, national obstetric MEWS chart may not have any benefit over locally developed systems, that are familiar to, and designed in conjunction with, the clinical staff that use them.
## Search Strategy

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