

Abstracts from the Oral Poster Presentation session at the combined Society for Acute Medicine and Dutch Acute Medicine Spring meeting

1st-2nd May 2014, Novotel, Amsterdam

Over 400 delegates enjoyed the hospitality of the Dutch Acute Medicine society who hosted the first ever joint meeting with the Society for Acute Medicine at the beginning of May. A varied programme covered topics including end of life care, adolescent medicine and the challenges around old age and frailty. Over 70 abstracts were presented in the form of posters, and six were selected for oral presentation. The text from these abstracts is published here.

Audit & Quality Improvement

Combating Severe Sepsis – A Multidisciplinary Approach –The Great Western Hospital Foundation Trust Sepsis Working Group

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Implementing effective measures to rapidly treat severe sepsis is challenging.¹ In the UK promotion of sepsis six in the first hour is the current National objective.^{2,3} Audit of a busy AMU revealed that only 1 patient in 30 received sepsis 6 in 1 hour.⁴

Aims

To implement a multidisciplinary sepsis working group (SWG) to improve management of severe sepsis

Methods

The SWG is a multidisciplinary team (MDT) formed in July 2013. It implemented a holistic programme to diagnose and treat severe sepsis. This approach involved: a sepsis management tool (SMT), lanyard card, posters, sepsis trolleys, rolling teaching, antibiotic guidelines, sepsis ward champions, world sepsis day participation, e-learning module, media support and motivating for a trust sepsis nurse.

Outcomes

Re-audit of severe sepsis cases (July to September 2014) receiving the sepsis 6 care bundle in 1 hour revealed an overall improvement of 3 to 11%.⁵ Patients receiving 5 or 6 elements of the care bundle increased from 13% to 57%. All patients with severe sepsis received antibiotics in both audits but time of first hour administration improved from 10% to 70%.

Conclusions

Following this work a sepsis referral site has been set up to urgently review sepsis cases, the SMT is part of the clerking proforma and a sepsis nurse for the trust has been approved.

A multidisciplinary approach facilitates ongoing evaluation of severe sepsis identification and management. This has resulted in a dynamic proactive approach to this serious problem which is an ongoing project.

References

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Service Organisation and Design

Complexity of medical handover and widening shift gaps –Time to move to seven day working? Results from an electronic handover system in an acute UK NHS Trust

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Aim

The structure of the modernising NHS is changing rapidly.¹ Five day working models may require handover of large volumes of information from weekday primary teams to on call teams especially at weekends. Medical handover has been deemed a high risk activity.² The aim of this study was to quantify, categorise and explore the temporal relationship of handover tasks on an electronic handover system in an acute NHS Trust.

Method

This has been achieved through the statistical interrogation of 11,285 electronic handover parcels registered between March 2010 and January 2011 at Barking, Havering and Redbridge Trust when five day working existed.

Results

A total of 4523 (40.9%) handover parcels were assigned for completion during the weekday out-of-hours period, 5987 (54.1%) at weekends and 561 (5.0%) for the eight national holidays. Shift gaps of one, where tasks were handed over to the next available incoming team were common on weekdays. However, the shift gap significantly widened over weekends and public holidays when primary teams looking after the patient were not available.

Conclusion

This study is the first to catalogue handover tasks in detail. Seven day working models may reduce handover risk. It dissolves large shift gaps between clinical teams for handover tasks which have been associated with communication failure.³ Increased staffing levels and diagnostic accessibility on weekends may also help to reduce the high volume of handover tasks posted to on-call teams. Acute trusts should review their current working practices and consider implementation of seven day working to mitigate handover risk.

References

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Service Organisation and Design

Acute Diabetes Service in the AMU

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Aim

Diabetes occurs as a comorbid condition in up to 20% of patients on the medical take and is associated with longer, more complicated, inpatient staysⁱ.

Our aim was to improve the safety, quality and efficiency of the care of diabetic patients with a new proactive AMU Acute Diabetes Team focussing on:

- Delivering early specialist care
- Providing staff education
- Reducing medication errors and hypoglycaemias
- Admission avoidance

Method

The acute diabetes team (nurse-led, consultant-supported) attended AMU at least twice daily and actively sought out patients with diabetes by liaising with nursing staff. There was a 6-week period of observation in September/October 2013. Over subsequent months, the service provided:

- Daily review of patients with diabetes on AMU
- Development of individualised care plans
- Medication reviews
- Support for ward staff (face-to-face, telephone)
- Programme of inter-professional, multidisciplinary education

Outcomes

Overall:

- 12-fold increase in number of diabetic patients seen within 24 hours (quarterly comparison pre-and post-intervention).
- 20 early discharges / admissions avoided

In 2 months (Nov-Dec) compared with initial observation period (Sep-Oct):

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- Hypoglycaemic events on AMU – reduced by 33%
- Medication administration near misses – reduced by 62%
- Prescribing errors – reduced by 67%

Conclusions

This proactive “in-reach” service, bringing the specialty team to the patient, has demonstrated early success in improving aspects of safety, quality and efficiency of care of patients with diabetes on the medical take. This service could be extended to surgical admissions and potentially reduce peri-operative complications relating to diabetes.

References

- Health and Social Care Information Centre, National Diabetes Inpatient Audit 2012

Audit & Quality Improvement

The Effectiveness of Care Bundles in a District General Hospital

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Aim

Clinicians are aware of management of common conditions; despite this, incident reporting within the hospital highlighted quality of care provided was suboptimal. This led to the development of care bundles for common medical emergencies presenting to acute medicine. Based on best evidence available, the aim was to provide optimal quality of care and reduce complaints.

Methods

To date 18 bundles have been developed-17 for conditions and 1 procedure-based. The bundles are accessible via the intranet, with a single page sticky label design. The bottom half provides a guide to evidence-based management for the condition which can be stuck into the patient notes. The top half is collected providing a clear audit trail thus supporting clinical governance.

Outcomes/Results

Started in August 2013; number of bundles used to date is 734. Three specific bundles were audited

(using 25 sets of notes pre and post introduction) to assess the quality of care. The bundles chosen were community acquired pneumonia (CAP), acute coronary syndrome (ACS) and the lumbar puncture procedure. The key findings were:

CAP-average length of stay reduced by 1 day, and sputum and blood culture rates increased significantly.

ACS-more than 75% of patients have their GRACE score assessed on admission.

Lumbar puncture-better information was provided ensuring informed consent, complications reduced, and documentation greatly improved.

Conclusion

Standard of care improved with the use of the care bundles. Additionally, the bundles received positive feedback from trainees, the specialities, and improved documentation for Clinical Coding.

Education

Patient Voice

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Aim

‘Patient Voice’ is an initiative from Chelsea and Westminster NHS Foundation Trust which aims to respond in a pragmatic way to the theme of the Francis report¹ of ‘patients not (being) heard’. ‘Patient Voice’ aims to formalise Foundation year 2 (FY2) doctors listening to patients and reflecting on their own practice.

Methods

Each fortnight, a group of FY2s (supported by a medical education fellow) invite a consenting patient or relative to share their experience of being cared for at Chelsea and Westminster Hospital with the FY2 group. There is a facilitated discussion surrounding the issues raised and the FY2s are encouraged to reflect on the experience.

Outcomes/Results

Initial feedback from the FY2 doctors has been very positive. In the most recent session, 93% of FY2s rated Patient Voice as “good” or “excellent” and 100% said they gained knowledge that would help them in caring for their patients. 79% of FY2s

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would change their practice as a direct effect of Patient Voice teaching sessions. Patients and relatives have been happy to be involved and grateful for the opportunity to be listened to.

Conclusion

Patient Voice is a practical and enjoyable way of encouraging junior doctors to learn from patient experience, which can be challenging in busy clinical environments such as the Acute Medical Unit. Junior doctors do not generally establish reflective practice spontaneously,² and Patient Voice can help trainees to develop this valuable skill. This programme could be replicated in other hospitals and has minimal financial cost associated with it.

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2. Driessen Erik, Tartwijk Jan Van, Dornan Tim. The self-critical doctor: helping students become more reflective. *BMJ* 2008;**336**:827-30

Research

Adverse Long-term Outcomes of DVT

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Background/Aim

Few studies examine the long-term outcomes of deep vein thrombosis (DVT).^{1,2} Often, the duration of follow-up was limited. Furthermore, most of these were based on neither the population nor current clinical practice in the United Kingdom.^{1,2} This study aimed to examine the five-year outcomes of patients with DVT.

Methods

We analysed 683 consecutive patients who attended the ambulatory care service at the Royal Infirmary of Edinburgh for investigation of potential DVT from January-September 2008. All cases were followed up to determine their five-year outcomes. Patients without D-dimer measurement, or with raised D-dimer but no radiological evidence of thrombus were excluded. Adverse outcomes measured were: all-cause mortality, new incidence of venous thromboembolism (VTE), new malignancy, acute coronary syndromes (ACS), ischaemic and haemorrhagic strokes. Results are presented in mean $\pm$ SD. This study received approval from Caldicott Guardian NHS Lothian.

Results

A total of 250 patients were included (mean age 59 ± 18 years; 56% women). Of these, 102 had DVT confirmed by venous ultrasonography. The majority (65.7%) had proximal DVT.

- Five-year adverse outcomes are statistically higher in patients with DVT when compared with those with D-dimer levels within normal range (52.0% vs 14.3%, $p < 0.0001$).
- Similarly all-cause mortality (26.5% vs 4.8%, $p < 0.0001$) was increased
- Incidence of further VTE (22.5% vs 2.0%, $p < 0.0001$) was increased in the DVT cohort compared with the D-dimer negative group.

Conclusion

DVT is associated with significant long-term adverse outcomes. Further research to detect the subset of patients who would benefit from targeted follow-up is urgently required.

References

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