

Abstracts from Oral Presentations at the Society for Acute Medicine Spring Meeting, May 2016, Belfast

As usual the Society for Acute Medicine received a large number of high quality abstract submissions for its Spring 2016 meeting which was held in the Titanic Centre, Belfast on the 5th-6th May. The most highly ranked abstracts were accepted for oral presentation and these are published here.

A Review of Acute Care Quality, Mortality Factors and Role of Electronic Patient Tracker on Acute Medical Unit Blackpool Victoria Hospital

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Aim

Measuring the effectiveness of new electronic patient tracker (e-tracker) on improvement in acute Care Quality (CQ) and determining the mortality factors as compared to conventional CQ/ Mortality audit from patients' notes.

Methods

Retrospective data of the deceased patients collected using the e-tracker system from July-Dec. 2015. Clinical Quality Indicators (CQI) by Society of Acute Medicine (SAM) were used as a standard.

Outcomes / Results

Total of 116 patients out of 8323 admissions died between Jul-Dec 2015 with a mortality rate of 1.39%. The mortality rate from the previous audit (May-July 2013) was 1.32%. The EWS based colour-coded triage prioritized and accelerated the clinical care as compared to writing the EWS score on the whiteboard. 70% patients were clerked within 1 hour of arrival as compared to 21% and 31% in previous audits. 74% had consultant review in < 12 hours in contrast to 37% and 20% in previous audits. 100% Documentation of timings was achieved. Out of hour referrals of deceased increased to 79% as compared to 10% in previous audits. 74% were identified as DNACPR, 35% end of life, 21% amber-care, 59% unwell. Previous audits didn't include the warning indicators other than DNACPR. The proportion of patients directly discharged from AMU was 10.53%. The top 6 causes of death had been Pneumonia (23%), Sepsis (16%), Cancers (13%), CCF (8%), COPD (7.83%), AKI (7%). The previous audits

broadly identified the causes of death as Infections, Respiratory, Cardiac and Gastroenterology.

Conclusion

The use of e-tracker resulted in rapid and accurate audit completion, within one week. The proportion of patients clerked and senior reviewed doubled due to colour-coded triage. Detailed causes of death were identified and deceased were labeled with warning indicators. A marked improvement was observed in overall performance; quality of clinical care and identification of mortality factors in line with SAM standard.

References

1. SAM guidelines (taken from internet) (<http://www.acutemedicine.org.uk/resources/quality-standards-resources/acute-care-quality-and-performance-indicators/>)
2. RCPE UK Consensus Statement November, 2008 (taken from internet) <https://www.rcpe.ac.uk/sites/default/files/files/final-statement-rcpe-consensus-conference-on-acute-medicine-nov-2008.pdf>

Utilising frailty scoring in the acute hospital setting to identify frail and vulnerable patients

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Alan Poots Katharine Warburton Federico Ciardi John

Soong Derek Bell

Aim

Our objective is to operationalize a clinically usable tool, frailty early warning score (FEWS), which will identify frailty and help predict significant outcomes, including (readmission, length of stay (LOS) transfer to higher level of care and mortality).

Methods

FEWS is based on a frailty model described by Soong et al (2015) with four specific domains (physical, mental, social and environmental).

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Between 03 June 2015 and 27 August 2015, 700 acutely admitted patients over the age of 65 were reviewed. Data were collected from clinical notes taken routinely as part of the emergency admission process. No new data were collected. All data were collected electronically through bespoke software by Thinkshield and innate hospital programs. The national early warning scores (NEWS) were simultaneously collected for comparison.

Outcomes / Results

700 patients were included (52.6% female) with an average age of 81 years. 94% were medical admissions (including orthogeriatric patients). 30 day mortality was 3.0%, 30 day readmission rate was 16.1% and the average length of stay (LOS) was 12.3 days. 280/700 (40.0%) patients aged ≥ 80 had ≥ 3 frailty score, whereas ages 65-80; 96/700 (13.7%) had a frailty score of 0. NEWS and FEWS were cross-tabulated: 246 admissions scored < 3 on NEWS (i.e. this would not trigger escalation), of which 206 scored ≥ 1 on the frailty tool. This could indicate a potential threshold for frailty escalation.

Conclusion

This study describes FEWS as a novel way of predicting a frail individual's outcomes. This score can be easily calculated at the point of care using routinely corrected data. It is fast and simple to use; it will not require additional clinical assessment. Further work is needed to determine the weight of each domain and sub-domain, as this will be needed to define the sensitivity of the final aggregate score

The Prevalence and Predictive Power of Frailty Syndromes on the Acute Medical Unit

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Aim

To explore the prevalence of frailty syndromes in the adult acute medical care population: Cognitive impairment, falls, reduced mobility, pressure sores and anxiety/depression. To explore the predictive power of frailty syndromes for inpatient mortality, 30-day readmission and institutionalisation.

Methods

A prospective observational study set in the Acute Assessment Unit of Chelsea and Westminster Hospital with convenience sampling from May

2013 – Dec 2013 of adult acute medical patient admissions. Data was abstracted by a researcher from patient records up to 36 hours from admission. Outcomes were retrieved at one month after index admission. Statistical analysis (on SPSSTM version 22) include descriptive statistics, collinearity diagnostics, logistic regression with risk model performance metrics and Area Under the Receiver Operator Characteristics Curves for predictive power derived from predicted probabilities. Missing data analysis followed by multiple imputation (by regression of dataset) where appropriate. Frailty Syndromes were coded new or active, or historic (co-morbid but no change in status from baseline). All models were adjusted for age, gender and number of readmissions in previous 6 months.

Outcomes / Results

Frailty is prevalent in patients > 65 years, and associated with higher mortality, 30-day Readmission and institutionalisation. Collinearity diagnostics and model performance metrics were acceptable. In those > 65 (N=482), historic frailty syndromes adjusted for age, gender and number of previous readmissions have moderate predictive power for all 3 outcomes. New/active frailty syndromes do not significantly alter predictive power compared to historic frailty. The addition of admission NEWS score to frailty syndromes improves predictive power for the 3 outcomes

Conclusion

Frailty is prevalent in unselected population following acute medical admission. In those > 65 , age and gender adjusted historic frailty syndromes have moderate predictive power for outcomes important to acute medicine. The addition of admission NEWS score improves predictive power.

Improving end of life prescribing on the acute medical unit

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Aim

Scholarly literature suggests newly qualified doctors feel inadequately prepared to deliver generalist palliative care^{1,2} yet, on the acute medical unit (AMU) this is a situation we are often faced with. Recognition of patients approaching end of life (EOL) and accurate prescribing is vital. This task may often fall to junior doctors who may not be

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confident in their prescription. We have noticed prescribing errors; in particular analgesia not being titrated appropriately. Our aim was to improve Junior Doctors prescriptions and reduce prescribing errors ensuring patients experience a dignified death.

Methods

We conducted a brief survey of junior doctors around their knowledge and confidence in prescribing anticipatory medications for EOL. We asked them to rate their confidence from 0 (no confident) to 10 (complete confidence). We also asked sources they accessed for advice and guidance. We suggested possible interventions which might help improve confidence in prescribing EOL medications.

Outcomes / Results

Confidence in prescribing anticipatory medications gained an average score of 6 whilst confidence in titrating analgesia was lower at an average of 5. When asked where they accessed information, the most frequent answer was the prescribing guidelines on the intranet, followed by the BNF and palliative care team. Over half the doctors felt a quick reference card/prescribing prompt would be useful, alongside teaching sessions to help improve accurate prescribing.

Conclusion

A focus group meeting took place with joint acute medicine and palliative care representatives following which we have designed and printed a quick reference card/prescribing prompt for EOL care. Doctors will carry this on their person. It contains the drugs and dosages for anticipatory medications both PRN and in syringe drivers. It also contains guides for titrating analgesia, including for patients with renal impairment. Dedicated teaching sessions are scheduled before they are launched as a pilot into clinical care. We plan to reaudit to ensure quality improvement before a wider hospital roll out

References

1. Bowden et al (2013). *J R College of Physicians of Edinburgh*. Are newly qualified doctors prepared to provide supportive end of life care? 43:24:3.
2. Price and Schofield (2015). *BMC palliative care*. How do junior doctors in the UK learn to provide end of life care: a qualitative analysis of postgraduate education. 14:15

Evaluation of a newly established Ambulatory Cardiology Unit and the impact on acute cardiology admissions within the Belfast Health and Social Care Trust

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Aim

The Ambulatory Cardiology Unit (ACU) opened on 24th August 2015 in the Belfast Trust with the aim of offering timely access to specialist assessment, diagnostics, treatment and follow-up for a number of cardiac conditions whilst avoiding unnecessary hospital admission. Referrals are accepted from emergency departments, outpatient clinics and inpatient wards. A condition specific referral system is employed incorporating AMB and NEWS score¹. Our aim was to assess the performance of ACU in the initial three months and determine its impact on acute cardiology admissions.

Methods

A retrospective analysis of all ACU attendances in the initial three month period was performed focusing on disease category and admission rates from ACU. Unscheduled care attendances and hospital admissions in the 30days after ACU attendance were recorded. All cardiology admissions from the Royal Victoria Hospital's emergency department from 24/8/15 to 23/11/15 were analysed and compared with equivalent dates in 2014 to determine the impact ACU has made on admission rates.

Outcomes / Results

272 ACU attendances (200 new, 72 follow-up) were recorded in the study period. The most common conditions managed in ACU included atrial fibrillation, palpitations, syncope, supraventricular tachycardia, heart failure and pericarditis. 3.5% were admitted from ACU for inpatient management. In the 30day period following ACU attendance 7 patients (3.5%) had a cardiac related unscheduled care attendance of which 1 patient (0.5%) required hospital admission overnight. Acute cardiology admissions fell by 11.4% (440 to 390) in the three month period following the introduction of ACU compared to the same period in 2014. Largest reductions in admissions by diagnosis included pericarditis (80%), supraventricular tachycardia (44.4%), atrial fibrillation (42.9%) and syncope (30%).

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Conclusion

ACU provides effective, safe and timely management of several specific cardiac conditions. A small proportion required admission from ACU and low rates of re-presentation were observed. It has resulted in considerable reductions in acute cardiology admissions.

Reference

1. Royal College of Physicians. Acute care toolkit 10; Ambulatory emergency care. Royal College of Physicians 2014.

Discharge and risk assessment in acute medicine: a qualitative case study

Liz Deutsch

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Aim

Background

National guidance is available for hospital discharge practice, yet evidence from small, medium and large Acute Medicine Units (AMUs) visited suggests limited generic in-patient guidance for the discharge of patients is used predominantly. This is posited as sub-optimal and improved guidance is urgently needed for patient discharge from AMUs.

Introduction

This research forms the second stage of a multi-component, Qualitative, Case Study - as advocated by the Medical Research Council, Complex Interventions guidance when conducting research involving complexity.

A Scoping Review of discharge policy and guidance across the United Kingdom for patients being discharged from Acute Hospital areas to include AMUs and Emergency Care facilities was conducted.

Aim

To critically consider, compare and contrast relevant policy/guidance which underpin the hospital discharge process and associated risk assessment(s); in order to interpret and construct bespoke guidance for AMUs to promote timely discharge from Hospital.

Methods

A Scoping Review is a five stage systematic method for reviewing the scope of a topic, predominantly related to Policy. It enabled a transparent procedural based process both across and within each policy/guideline.

Four broad research questions were, namely.

1. What if any, national discharge planning policy exists to guide the discharge of patients specifically from acute areas, such as AMUs?
2. What are the fundamental components of the discharge process that are identified throughout the UK discharge policies, and what are the similarities and differences across the UK policies?
3. What if any, are the key recommendations regarding the appropriate risk assessment of patients who are due to be discharged from acute care?
4. What if any, are the commonalities from the policies and could these be merged to revise the discharge process from acute areas?

Outcomes / Results

The Charting process revealed that there are commonalities across core UK Discharge Policies (see uploaded files).

Published guidance is available promoting the risk assessment of the older person, nevertheless this is not included within the core UK discharge Policies explored**

Importantly, there is no 'uniform' risk assessment process employed by staff in AMUs evidenced by a literature review and this Scoping work, prior to patient discharge from Hospital.

Conclusion

Bespoke discharge guidance through an adapted process should be devised for AMUs which better relates to the limited patient contact time, risk assessment and very short lengths of stay.

This would provide less overlap of 'routine questions' addressed to the patient/family/carers; to reduce their current frustrations ultimately to agree realistic expectations/ongoing management upon discharge from hospital.

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An examination of acute medical units in Scottish hospitals

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Nazir I Lone, Zoe J Morrison, Christopher J Weir,
Michael C Jones

Aim

The majority of acute medical care in the United Kingdom (UK) is delivered in acute medical units (AMUs). Although there are published recommendations for care delivery in AMUs, empirical evidence is lacking. We undertook a qualitative descriptive study to examine the AMU model with regard to its definitions, its components and how these components were implemented across a national set of AMUs.

Methods

A total of 29 AMUs in Scotland were identified. Data were collected through questionnaires and semi-structured interviews with a total of 171 health care professionals during a visit to each of the sites. These data were used to generate 29 unit reports and these reports were thematically analysed using framework analysis.

Outcomes / Results

There were three principal findings from this analysis. Firstly, we propose a modification of existing definitions of AMUs with regard to how the boundaries of acute care are defined. Secondly, we have identified a framework of the key components of AMUs which include care areas, functions, patient flow, specialty care and multidisciplinary staffing. Lastly, we provide detail of how the implementation of these components of care varies across Scottish sites and, where possible, identify distinct models of care delivery. For example, we found seven models of consultant work patterns and 13 models of AMU functions.

Conclusion

AMUs are complex, multi-purpose entities that comprise multiple inter-dependent components of care that are heavily influenced by locally determined factors. This work provides the first in-depth insight into AMUs and is an essential precursor to further work that aims to evaluate how best to deliver care within AMUs. The findings also provide a summary of current practice in Scotland which is likely to be useful to practitioners in developing services at local level and play a role in informing policy at national level.