BACKGROUND

Exacerbation of chronic obstructive pulmonary disease (COPD) account for a significant proportion of admissions to the acute medical unit (AMU). Often these patients are treated and discharged without being transferred to a respiratory ward.

NICE guidelines state every patient with suspected COPD should have their diagnosis confirmed and graded using spirometry; different inhaler combinations should then be prescribed depending on disease severity. Smoking cessation advice should be given to all active smokers, and inhaler technique should be checked during each hospital admission.

AIM

To assess whether current practice met NICE guidelines for inhaler prescribing, smoking cessation advice and checking inhaler technique.

METHODS

Data was collected prospectively from 40 patients admitted with suspected and confirmed COPD over a month period. Audit was conducted in Chorley District Hospital in Oct 2012 and then repeat audit done in Jan 2013.

OUTCOMES

92.5% of patients labelled with COPD had had spirometry previously. Only 50% of inhaler prescriptions were in accordance with NICE guidelines. Of the 23% of the patients who currently smoked, none had smoking cessation advice documented in their notes. Inhaler technique was rarely checked, with only 7.5% of patients having this done before discharge.

INTERVENTION

A teaching and training session was organised on AMU and the data was presented at a trust audit meeting. A reaudit of further 45 patients was performed after 3 months.

RE AUDIT

Inhaler prescription accuracy showed a large improvement from 50% to 89%, as did assessment of inhaler technique from 7.5% to 78%. All active smokers (29% of patients) were provided with clearly documented
smoking cessation advice.

SUMMARY

Appropriate education and training can lead to a significant improvement in the management of patients with COPD, which may improve future patient outcome.
Aim: GP referral letters are utilised when admitting patients to acute medical units. They allow the GP a method of informing hospital staff the reason for referral and why the patient needs acute medical input. The King’s fund has commented on the lack of evidence in this area (1). The aim of this paper was to assess the quality of GP referrals to the acute medical unit and to develop a standardised referral document to be implemented for future referrals.

Methods: An audit was conducted which analysed patient admissions, 90 patient referrals were assessed for presence and content of GP referral letters. The results were fed back to General Practices in the catchment area with a suggested referral document. A re-audit of 63 referrals was conducted to re-assess content and whether the referral document was used.

Outcome/results: In the initial audit 95.6% of GP referrals had a referral letter. In the follow up audit 93.7% had a letter however only 12.7% had the referral document introduced. 53.3% had a past medical history compared to 77.8% in the re-audit. 66.7% had the date of referral compared to 71.4% in the re-audit. The findings in the re-audit mirrored the initial audit with improvement in content when the referral document was used.

Conclusion: This study found a wide degree of variance in the content of GP referral letters. The introduction of a standardised referral document either in electronic or paper format when referring patients to acute medical units would help remedy this variation.

References:

Title: Identifying the most effective method to optimize the management of acute asthma in the Medical Admissions Unit (MAU)

Topic: Audit & Quality Improvement

Author: Lekshmi Mohan Das
        Philip Coakley
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AIMS: Acute asthma accounts for one hospital admission every 7.5 minutes. The BTS has guidelines on the management of acute asthmatics which have been shown to reduce readmission rates. This study aims to audit the management of acute asthmatic admissions and to investigate whether intervention by an asthma nurse specialist (ANS) improves outcomes.

METHODS: A retrospective case note audit of all acute asthma admissions in September and October 2012 was undertaken. These results were compared with the same audit undertaken last year.

RESULTS: Across all 16 BTS audit criteria, the overall achieval rate was 54.6% compared to a national average of 59.35%. 11/41 patients were jointly reviewed by the asthma nurses and doctors. The average achieval rate in patients seen by ANS was 64.5% vs. 51.1% in those who were reviewed by medical staff only. In the 2011 audit, the achieval rates in the ANS group was 60.1% and non ANS group was 29.3%. Achieval rates increased to 87.1% and 55.1% respectively after the audit action plan was implemented.

CONCLUSIONS: Following the 2011 audit, it was demonstrated that the involvement of the ANS in the acute asthma admissions in the MAU increase adherence to guidelines. The action plan following the 2011 audit including education of MAU junior doctors and increased MAU specialist in-reach, led to an initial increase in the achieval rates. However, these results were shortlived. Therefore, we have proposed an asthma checklist for use in all acute asthma admissions to produce sustained improvements in guideline adherence.
Introduction

UTIs account for 25% of antibiotic prescriptions in UK hospitals. In elderly populations, asymptomatic bacteriuria is not an indication for antibiotics; unnecessary prescribing is associated with increased morbidity and emergence of drug-resistant bacteria. This audit aimed to improve appropriateness of UTI-directed antibiotic prescribing in elderly patients on the AMU, using Scottish Intercollegiate Guidelines Network (SIGN) UTI guidance as a standard.

Methodology

Patient notes and computer systems were used to collect data from patients over 65 years old admitted to the Royal Liverpool University Hospital AMU. Parameters studied were: UTI-directed antibiotic prescription; UTI symptoms; ward-test urine (WTU) / mid-stream urine (MSU) results and presence of catheters. The data were analysed to gauge adherence to SIGN guidance. Quality improvement strategies were implemented in the form of AMU teaching sessions and Health Protection Authority (HPA) algorithms before re-audit.

Results

Data were collected on 243 patients over 26 days in the first cycle and 146 patients over 15 days in the second cycle. In the first cycle, UTI-directed antibiotics were prescribed in 22 cases, 3 (14%) of which followed SIGN guidelines. Errors included prescribing antibiotics without UTI symptoms, not prescribing in the presence of symptoms, incorrect antibiotic choice, not sending MSUs in male UTIs and not replacing long-term catheters before treatment. In the second cycle, SIGN guidelines were followed in 6 (55%) of 11 antibiotic prescriptions. In both cycles, 66% of organisms cultured were trimethoprim-resistant.

Conclusions

SIGN guideline adherence was initially poor, but increased after implementing quality improvement strategies. Fewer UTI-directed antibiotics were prescribed without urinary symptoms in the second cycle, but incorrect antibiotics were still often chosen. High levels of trimethoprim resistance were observed. Education through lectures and algorithm implementation may have a role in improving UTI antibiotic
prescribing in elderly patients on the AMU.
AIM

In patients with respiratory conditions associated with chronic hypoxaemia (such as COPD), use of the National Early Warning Score (NEWS)[1] leads to a high number of triggers. We designed a simple variant of NEWS for patients with chronic hypoxaemia.

METHODS

Data was collected from respiratory wards at two hospitals in North Wales over a three-month period. Patients were categorized into those with chronic hypoxaemia (H, target oxygen saturations 88-92%) and others (O, target saturations 94-98%). Vital signs were recorded on admission to hospital, at the peak NEWS score during admission, and during a period of stability/at discharge.

OUTCOMES

217 consecutive admissions were reviewed. 108 were female, 84 had H, 26 received long-term oxygen therapy. The mean NEWS for all patients on admission was 5 (SD 3), mean peak NEWS was 7 (SD 3), and median hospital length of stay was 10 days (IQR 6:17).

23 patients died within 30 days; 12 with H. Of these, all patients with H scored 6+ compared to 9/11 O patients. When stable/at discharge, 36% of H patients scored 6+ (Welsh trigger) and 54% scored 5+ (RCP trigger). By using a recalibrated scoring system (CREWS), patients triggering during stability/at discharge were reduced to 24% (5+ trigger) and 12% (6+ trigger). All patients who subsequently died were still identified.

CONCLUSION

Patients with chronic respiratory conditions have altered baseline parameters that lead to a high number of NEWS triggers. CREWS reduces triggers without compromising safety.

REFERENCE

Title: Patient Experience: A tool to improve an Ambulatory Care.
Topic: Audit & Quality Improvement
Author: Kavina Manalan
Co-Authors: David Ward
Sarah Brittle

AIM

The Ambulatory Care Unit opened in February 2012. We wanted to evaluate and improve patient experience.

METHOD

In July 2012, 20 patients completed a validated questionnaire(1) about our waiting area, staff and delivery of service. These were further explored in a focus group including staff and patients representatives.

Consequently, we attempted to improve the patient journey by:

- Producing patient leaflets and departmental posters to explain our service and waiting times
- Involving more consultants in delivering the service
- Embedding quality care in an operational policy
- Recruiting permanent (non-locum) junior doctors to match demand
- Initiating staff meetings with management to address any deficiencies
- Attending GP meetings to advertise and explain the service to increase and improve referrals. We also included flyers with discharge letters.
- Increasing awareness within the hospital

30 patients completed a repeat questionnaire in January 2013.

All attendances are recorded on a spreadsheet.

Results

We average 15 patients per day with a variety of diagnoses (fig 1 and 2).

- There was an increase in patients who were given written instructions, contact details and advice to bring regular medication.
- More patients thought our waiting room and reception staff were very good.
- All patients felt we communicated clearly, that their results were explained clearly and would recommend the service.
CONCLUSIONS

Questionnaires and focus groups can be used to improve patient experience. We have used this data to impress GP commissioners. Lessons from our study could be applied to other developing services.

1 RCP: How user friendly is your outpatient department?

http://bookshop.rcplondon.ac.uk/contents/e608649f-321c-43a3-a132-31514157e371.pdf
Aim:

Vascular access in resuscitating critically ill patients can be challenging. Intra osseous (IO) access is recommended as an alternative for patients in whom intravenous (IV) access is not possible or associated with delay. We completed a survey of the hospital resuscitation team (HRT) members involved in the care of critically ill patients. We wanted to assess a) awareness b) practical experience with IO access c) use of intravenous (IV) access and IO access with particular reference to the d) success rate and e) speed of insertion during resuscitation calls in last one year.

Methods:

A paper based and online questionnaire were sent to staff involved in the care of critically ill patients.

Results:

Total 103 responders. Specialty breakdown (N=66) (See graph)

IMAGE 1 (SPECIALTY.JPG)

Almost all (n=101) were aware of IO access. One fourth (n=28) had experience of putting IO needle in a real patient though majority (n= 87) had previous training with IO needle insertion. Medically trained members are less likely to have training in IO access OR 0.1 CI 0.02-0.5 P0.001. About half (n=57) were members of the HRT. Half (n=53) mentioned obtaining IV access within 5 minutes and 12 needing more than 10 minutes. One third mentioned (n=33) failure to obtain vascular access. One fourth (n=27) had successful central line access established during resuscitation.

Conclusion:

IO access is underused in acute medicine. It should be considered if IV access is not possible within two minutes of cardiac arrest.
AIM

Sepsis kills around 37,000 people annually in the UK (1). Early recognition and treatment is key to reduce morbidity and mortality (2). Using the care bundle Sepsis 6 can reduce adverse outcomes (3). We aimed to implement this in our hospital to improve our management of sepsis.

METHODS

Using a “Spreading Inkblot strategy” (4) to implement the care bundle “Sepsis 6” in a DGH. Starting in the Medical Assessment Unit and spreading to the Acute Medical Unit and Emergency Department. Staff were engaged at one site with presentations and weekly meetings. Once a reliable process was achieved this was spread to the next site. This was aided with posters and “Sepsis 6 Stickers” to be placed in the notes and think Sepsis on blood culture bottles. This was measured with run charts and “Hot Feedback”. The process was modified in real time using P.D.S.A (Plan, Do, Study, Act) methodology.

RESULTS

From 10% compliance we have achieved 90-100% compliance in the MAU/AMU See graph with a median time to antibiotics of 3 hours to 40 minutes.

Mean age 66.7 ± 5. There was no statistical difference in mortality 30% vs 14% P 0.14 or Length of stay 10.5 vs 9.3 P 0.33 of those whom the bundle was completed in the hour

CONCLUSION

Using a spreading ink blot strategy and staff engagement we have reliably improved the compliance of the care bundle sepsis 6 improving patient care. There is a trend for reduced length of stay and reduction in mortality. Further study is required to confirm this.

References
1. UK Sepsis Group, Harrison D et al. Critical Care 2006; 10:R42


AIM: Chelsea and Westminster Hospital strives for excellence. The junior doctor-led ‘Mind the Gap’ is designed to improve care for admissions on the Acute Assessment Unit (AAU), targeting delays such as time to results and to definitive treatment. These delays, or ‘gaps’, usually occur due to unannounced arrivals from both A&E and GPs to AAU.

METHOD: Using a quality improvement approach, junior doctors developed and tested a aide memoire, which was to be completed for all patients on arrival to AAU. Based on the Rapid Assessment and Treatment (RAT) model used in Emergency Departments, this initiative ensures prescribed time-critical treatments are administered and basic investigations ordered immediately after arrival and prior to clerking to guarantee timely, safe and reliable care through early assessment.

Measurement via a daily AAU sample audit calculates the time to definitive treatments and interventions to monitor improvements.

OUTCOMES/ RESULTS: A series of Plan- Do- Study- Act (PDSA) cycles were useful in developing the process, engaging multidisciplinary staff, disseminating knowledge of the programme and embedding it into practice. A baseline audit illustrated that 3% of patients admitted to AAU from A&E had not received their prescribed treatments, and 25% did not have their ordered chest x-ray before transfer to AAU. Average time to first treatment for non-A&E admissions was 4 hours 12 minutes.

CONCLUSIONS: Preliminary data post-implementation of ‘Mind the Gap’ revealed improvement in the uptake and usage of early assessment of patients in AAU. Ongoing data collection will be reported by the time of poster presentation.
Prolonged waiting in hospital emergency departments (EDs) is associated with increased risk of adverse clinical outcomes, in-hospital mortality and hospital admission and delayed treatment for patients.\textsuperscript{1-3} Care providers therefore need accurate information to manage patient flow in EDs and deliver high quality care within time constraints. Data should alert care providers to clinical risk and poor patient experience. The NHS Outcomes Framework\textsuperscript{4} proposes that three measures are sufficient to understand ‘the entire distribution of waiting times’ in EDs - the median wait, $95^{th}$ percentile and maximum wait. Prompted by a concern that these measures are insufficient, this study explores the potential use of scatterplots to provide data on performance and alert care providers to issues of concern.

**METHODS**

Anonymised patient-level data on 463,000 patients collected over two full years recording length of stay to the nearest minute from four separate EDs were analysed. Scatterplots providing a detailed representation of the distribution of waiting times were produced for all sites. For each hospital we explored how informative the scatterplots were compared to the single measures required under the NHS Outcomes Framework\textsuperscript{4} - the median wait, $95^{th}$ percentile wait and maximum wait.

**OUTCOMES/RESULTS**

There are several instances where the use of scatterplots identifies concerns that are not picked up with the use of single measures alone.

**CONCLUSION**

The use of scatterplots could help care providers better understand the distribution of waiting times in EDs, identify where EDs struggle to deliver care against time constraints and highlight poor patient experience.


2. Pines JM, Hollander JE, Localio AR, Metlay JP. The Association between Emergency Department Crowding and Hospital Performance on Antibiotic Timing for Pneumonia and Percutaneous Intervention


Title: Does individual consultant practice influence the weekend discharge rate from AMU?

Topic: Audit & Quality Improvement

Author: Gordon Morrison

Co-Authors: Chris Roseveare

Title

Does individual consultant practice influence the weekend discharge rate from AMU?

Authors

Dr G Morrison and Dr C Roseveare

Background

Acute Medical Units (AMUs) commonly experience bed pressures on Mondays; reductions in weekend discharges have been cited as a possible explanation for this. Although some factors which influence weekend discharge rate are out of the control of the hospital, individual consultants’ thresholds for discharge might also play a part.

Aims and Objectives

1. To compare the weekday average discharge rate with that at weekends.

2. To determine if there are variations in discharge rate between individual consultants covering the weekends on the AMU.

Methods

Daily admission and discharge rates were analysed for a large teaching hospital over a 4 year period. The proportion of patients discharged directly from the AMU was calculated for weekend and weekdays alongside the consultant weekend rota.

Results
Average weekday direct discharge rate was 39%, compared to 33% for weekends (see figure 1). There was significant variation between consultants’ weekend discharge rate, ranging from 27% to 40% (see figure 2); mean direct discharge rates tended to be higher for those consultants whose weekday practice was based predominantly on the AMU (37% vs 32% for consultants not based on AMU).

Conclusions

The proportion of patients discharged directly from AMU falls at weekends; our data suggest that variable thresholds for discharge between consultants influence this figure. Identifying variations in direct discharge rates may be helpful to inform consultant appraisal and support improved practice.
AIM

Medical Emergency Teams (MET) are in place in many hospitals. There have not been many studies looking at the mortality rates of patients who have an elevated Modified Early Warning Score (MEWS).

This study undertaken in a University Hospital aimed to find out the mortality and morbidity in these patients and compliance with the local MEWS policy.

METHODS

589 available adult MET call audit forms out of 945 MET calls in 2011 were reviewed. The audit standard was the local MEWS policy and NICE CG50. A MEWS of 7 and above is meant to trigger a MET call.

OUTCOMES/RESULTS

76.8% of calls were in patients aged 61 years and above.

The call was placed appropriately in 86.1%

The correct action was not followed in 28% of patients who had an increasing MEWS prior to the MET call.

Respiratory pathology and Sepsis were responsible for 29.3% and 31.8% of calls respectively.

5.1% of patients were admitted to Critical Care following MET calls.

CPR status and ceiling of treatment were documented in 43.1% and 40.1% respectively.

Adults above the age of 70 years had a survival to discharge, 1 month and 6-month survival of only 43%, 40% and 31% respectively.

Males had a worse outcome with a survival to discharge, 1 month and 6 month mortality of 44.4%, 41.9% and 32.6% when compared to 59.1%, 51.8% and 45% for females respectively.

Patients with MEWS of 12 had an 80% 1 month mortality and a 100% 6 month mortality.

Even patients with MEWS of 5 and 6 (below the threshold to place a MET call) had a near 50% 1 month and 6 month mortality.
CONCLUSION

High ‘MEWS ing’ elderly male patients have the highest mortality.

Sepsis and Respiratory pathology contributed to the majority of MET calls.

Improved compliance with the MEWS policy and a clear management plan which includes CPR status and ceiling of treatment can improve care and reduce inappropriate MET and cardiac arrest calls.

Is there a mortality benefit in lowering the MET call threshold?

REFERENCES

1. NICE CG50: Acutely ill patients in hospital, July 2007
Reducing the burden of emergency readmissions for patients with recurrent ascites

Dr G Samra
Blackpool Teaching Hospital NHS Foundation Trust

Background
A study of 100 patients readmitted within a month of discharge from hospital to the Department of Medicine highlighted that 12% of all readmissions were due to recurrent ascites.[1]

Aim
To determine whether an individual case management approach for patients readmitted with ascites may be used as an alternative management strategy aimed to –

• Reduce readmissions
• Reduce inpatient length of stay
• Improve patient experience

Methodology

Stage 1: ‘A profile of patients admitted to Blackpool Teaching Hospital with ascites; September- December 2011’ revealed:

• 19 patients admitted with ascites contributed 50 admissions
• Total number of readmissions = 34 (68% of all admissions)
• 90% of patients required therapeutic paracentesis
• Average length of stay/admission = 3.8 days
**Stage 2:** A clinical pathway (Ascites Clinic) was established to facilitate planned admissions for therapeutic paracentesis as a day admission.

**Stage 3:** The impact of the Ascites Clinic was assessed for the corresponding period of September – December 2012.

**Results**
- 23 patients admitted with ascites contributed 31 admissions
- Total number of readmissions = 4 (13% of all admissions)
- 17 therapeutic paracentesis were performed for 7 patients in the Acites clinic
- On two occasions a patient required hospital admission post paracentesis
- Number of complications post therapeutic paracentesis = 0

**Conclusion**
An ‘individual tailored case management approach’ via the Acites Clinic has reduced emergency admissions to hospital, reduced inpatient readmissions and has improved the overall patient experience.

[1] G Samra : Readmissions to Medicine, Preventable or Not?; Blackpool Teaching Hospitals NHS Foundation Trust; September-October 2011-2012
Aim

Cellulitis is an eminently suitable condition for ambulatory treatment with intravenous antibiotics (IVAB). [1] The Ambulatory Day Unit (ADU) at Gloucestershire Royal Hospital has practised 7-day working since it opened in July 2010. We aimed to review the cellulitis referrals over the past year to establish the effectiveness and the safety of this pathway.

Method

We retrospectively reviewed cellulitis referrals seen in the ADU over a year period (January 2012-December 2012). We ascertained the final diagnosis, IVAB choice, IVAB duration, bed-days saved, and the 28-day hospital readmission rate.

Results

39 patients (23 men, 16 women) were referred to our ADU in 1 year with a diagnosis of cellulitis. Modal age was 40-59 years. Most referrals were from Primary Care (38%) and the Emergency Department (33%). A final diagnosis of cellulitis was made in most patients (82%). The most common site of cellulitis was the left leg (51%). The majority (72%) of patients receiving daily IVAB got ceftriaxone as per protocol, the mean number of IVAB doses was 6.75 (standard deviation 3.7 doses) (Figure 1); these represented a total of 216 inpatient bed-days saved. No complications or adverse reactions were noted and no patients required hospital admission.

Conclusions

The majority of cellulitis referrals to our ADU are appropriate, and are managed safely with daily IVAB. There remains scope to increase our ADU cellulitis workload, and Primary Care and Emergency Medicine education is key.

References

Aim

The British Thoracic Society (BTS) guidelines on management of pneumothorax state that inspiratory chest radiographs alone are sufficient for diagnosing pneumothorax. However, some textbooks advocate the use of paired inspiratory and expiratory radiographs. The aim of this study was to assess whether current practice adhered to BTS guidelines and whether the published literature supported these guidelines.

Method

A survey was sent to 138 Emergency Physicians in the Mersey Deanery (ST3+ and Consultants) regarding their practice. A telephone survey was conducted with a radiographer in each acute trust in the Mersey region.

A literature review was performed using a systematic search of MEDLINE and EMBASE.

Outcomes

Amongst Emergency Physicians, 28.6% request paired and inspiratory radiographs routinely. 40% found expiratory radiographs useful. Only 35% would never request them. 44.3% reported that departmental policies varied throughout the region.

In 3/9 Radiology Departments paired radiographs were performed routinely and in a further 3/9 trusts radiographers performed expiratory radiographs if the Radiologists agreed.

A total of four relevant papers were identified. These papers were appraised. There was no statistically significant evidence to support the use of paired inspiratory and expiratory chest radiographs.

Conclusion

Despite BTS guidelines, there remains variation in practice regarding the investigation of suspected pneumothorax. Available literature suggests that the routine use of paired radiographs cannot be justified on the grounds of associated radiation exposure and cost.

References


Aim:

The 2008 National Guidelines on HIV testing stated that in areas of HIV prevalence \( \geq 0.2\% \) (1) routine HIV testing should be offered to all medical admissions regardless of age or admission diagnosis. Prior to introduction HIV testing was performed on between 1-3% of medical admissions with a correspondingly poor pick up rate.

In Manchester it is believed one third of patients are unaware of their diagnosis and late presentation is associated with poor prognosis.

Methodology:

Routine HIV testing at point of admission was introduced onto the acute medical unit in 2011.

Recording of verbal consent to HIV testing after explanation of rational was added to medical clerking documentation for both juniors and consultant staff.

Patients where informed that "no news is good news"

After consent a blood request card was generated and the sample was taken at the time of next routine blood testing. This sample was not routinely taken by the requesting clinician.

Patient with positive results where contacted directly by either the Acute Medical or GUM teams

Results:

Over the period of initial monitoring 30-40% of all admissions to the AMU between June - November where screened (1263) and the prevalence was confirmed at 1/200

Seven positives where identified in patients who did not disclosure status on admission

Two of these where historical cases.

Reasons for non testing where identified from medical and nursing staff surveys identifiable and anonymous.
Conclusion:

Introduction of routine testing identified five new cases and all patients were reviewed by our GUM team. However, the overall compliance with screening was disappointing.

The main barriers identified were not patient refusal but concerns from medical staff regarding time taken to consent during a busy medical oncall, fear of communication of a positive test and lack of feedback mechanism to inform patients that the test had actually not been performed.

Further electronic mechanisms are currently being evaluated to improve medical compliance with screening.

References:

Medications can contribute to significant morbidity and mortality in the elderly.\textsuperscript{1,2} The risk of harm is higher in patients with polypharmacy (6 or more medications) or the use of medications with less favourable side-effect profiles.\textsuperscript{3} Medication reviews have been shown to reduce the risk of harm in a highly cost-effective fashion.\textsuperscript{4}

Aim:

To develop and pilot a screening tool to identify patients at risk of medication-related harm who would benefit from formal medication review.

Methods:

The STOPP tool was adapted for use as a screening instrument to identify patients at risk of medication-related harm. The tool was administered by pharmacy staff to patients aged 70 and over admitted acutely to the Chelsea and Westminster Hospital between August and October 2012. Individual drug histories were further scrutinized for evidence of polypharmacy and other potential medication-related problems (such as drug-drug interactions).

Results:

210 patients were screened. The average number of medications per patient was 8.5, with 153 (73\%) on 6 or more medications. 633 medications were identified as being potentially inappropriate (35\% of patients); 131 patients (62\%) had symptoms which might have been attributable to prescribed medication. The screening process did not identify some patients who may have benefited from review.
**Conclusion:**

As the majority of elderly patients were identified as being at risk of medication-related harm and the screening tool failed to identify all patients appropriate for medication review, the screening process was abandoned. Formal medication review should be considered in all patients aged 70 and over on admission to hospital.

The team works in collaboration with other NW London CLAHRC projects improving prescribing in the elderly.
Clinical Quality Indicators in Acute Medicine Units: Data for Improvement or Data for Scrutiny?

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Situation

Non-standardised collection of Clinical Quality Indicators (CQIs) for Acute Medicine may result in confusion between use of data for scrutiny and use of data for improvement. This will potentially limit the usefulness of any data gathered.

Background

Some of the Society for Acute Medicine (SAM) CQIs are readily amenable to electronic capture from in-patient management systems. However, others require casenote review;

- Early Warning Score on arrival
- Review by competent clinical decision maker within 4 hours
- Review by consultant within 14 hours

Assessment
Currently there is no agreed process for data collection. Some units are collecting data prospectively from ‘randomly sampled’ casenotes of current in-patients. This is appropriate use of data for improvement (sequential sampling to assess the impact of a test of change). Despite best efforts however, such processes can never generate a truly representative sample, and will always introduce bias. Such data cannot therefore be used for benchmarking (data for scrutiny).

**Recommendation**

If CQIs are to be used for benchmarking, then truly representative samples must be used. At Forth Valley Royal Hospital we use a random number generator (based on atmospheric noise – www.random.org) to select a sample from a list of patients admitted each month. The sample size of 30 from 1500 admissions was selected on the basis of 15% error margin and 90% confidence limits (www.raosoft.com/samplesize.html). We are confident that this produces representative results suitable for benchmarking. However other units need to adopt similarly robust methodology in order for comparisons to be meaningful.