**Significant Event Audit at Rainbows Children’s Hospice – a case study**

**What is Significant Event Audit (SEA)?**
A process in which individual episodes (where there has been a significant occurrence with beneficial or deleterious outcomes) are analysed in a systematic way to determine what can be done to improve the quality of care, and to indicate changes that might lead to future improvements (Professor Mike Pringle, 1997)

**Types of incidents Rainbows review**
- Hean loss incidents
- Medication incidents
- Deprivation of Liberty issues
- Tissue viability issues
- Managing challenging situations
- Compassionate end-of-life care and DOC working
- Celebrating best care in exceptional circumstances
- Whistle-blowing

**What are the benefits of SEA?**
Rainbows constantly evaluate the SEA process in the organisation, a selection of the feedback is provided:
- “We all got the opportunity to have a group meeting to be able to put all points across” (Staff)
- “Well organised and respectful meeting” (External panel)
- “To hear both sides of the argument and the SEA process is a good way to review incidents” (Parent)

**Step 1: Identification and prioritisation of a significant event**
- Young person was admitted for end of life care. A syringe driver was inserted to manage her pain. The pain was up and down as noted by her pain score in the days leading up to her death. In order to manage her pain advised to give regular breakthrough doses of Midazolam and Diamorphine. The required fresh doses. Her driver medication was increased on 3 Sunday afternoons...it was then stated that it was not enough to break the medication to the change of short 24 hours!
- Given better pain management than breakthrough doses of Midazolam and Diamorphine. She was up and down...it was then stated that it was not enough to break the medication. The driver medication was increased on 3 Sunday afternoons and it was then stated that it was not enough...the young person was expected to die, but we still needed to plan to manage her pain.

**Step 2: Information-gathering**
This stage took place as soon as possible after the incident was reported. Members of Rainbows Care team were responsible for collecting relevant information. This included a chronology and accurate response from those involved.
- Care team notes and testimony from staff were available for the meeting. This included a summary of the incident and the drug card and syringe-driver check sheet.

**Step 3: The facilitated team-based meeting**
- “What happened” and chronology were prepared by Rainbows Lead Nurse who acted as the SEA facilitator. The young person’s family were not invited to attend the meeting, but individually patient and family representatives were encouraged and supported. All staff involved in the incident related to the meeting, including the Clinical Nurse Specialist for palliative care to contribute to the learning and action planning for the future.
- “What happened” and chronology of events / medication “were read out at the meeting.

**Step 4: Analysis of the significant event**
The main purpose of the meeting was to provide a forum to review discuss significant events. The team were not told to focus on the incident itself. The team present were asked to consider the learning and action planning for the future. What contributed to the incident occurring? What were the immediate and underlying reasons that the incident occurred? The facilitator encouraged the team present to dig deep and avoid superficial causes.

**Step 5: Agree, implement and monitor change**
The team discussed what had been learned from the incident and what might be done differently in the future. The team agreed that improvements were needed to improve system and to identify a way to improve. It is much easier to organise anything on a week day! Expect the unexpected – the young person was expected to die, but we still needed to plan to manage her pain.
- Given better pain management than breakthrough doses of Midazolam and Diamorphine. She was up and down...it was then stated that it was not enough to break the medication. The driver medication was increased on 3 Sunday afternoons and it was then stated that it was not enough...the young person was expected to die, but we still needed to plan to manage her pain.

**Step 6: Write it up**
Rainbows has a standard format that is followed to write up each SEA. This report is anonymised and is available for all staff to read. This case study followed the SEA standard format with the report findings and key learning disseminated widely.

**Step 7: Report, share, and review**
Rainbows share learning from their incidents across the organisation and where applicable with other agencies. Rainbows work hard to involve parents and carers in the SEA process and they provide full feedback to families involved.

Rainbows have also shared their SEA processes and documentation within the hospice community.

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**What others say about Rainbows Significant Event Audit Process**
- “…Following the review of the death of [child’s name] panel members are asked to highlight areas of good practice/service provision. The information presented to panel outlined that Rainbows had provided significant support for family members under very challenging circumstances. The panel members wish to acknowledge the involvement of staff in these challenging circumstances and asked that this be formally noted” (Child Death Overview Panel). SEA was used following the family stay.
- “All staff involved were invited to attend meetings along with parents/young people and used to examine the situation to see what could be learned for future reference” (Care Quality Commission. Rainbows received an overall Outstanding rating and Good for the Safety domain)

Rainbows were trained in Significant Event Audit Methodology by the Clinical Audit Support Centre Limited. To find out more please visit www.caasc@ntlworld.com
IT'S ALL FUN AND GAMES UNTIL SOMEBODY GETS HURT: USING A SCAVENGER HUNT GAME TO TEACH HUMAN FACTORS TO JUNIOR DOCTORS

Dr Lucy Baxter, Simulation and Clinical Education Fellow

INTRODUCTION

WHY TEACH HUMAN FACTORS?
• Increasing awareness of human factors can help reduce medical error.
• It is now a requirement that all junior doctors have training in recognising and minimising the impact of human factors. (1)

WHY USE A SCAVENGER HUNT GAME?
Previous feedback from junior doctors on human factors teaching in this trust included comments such as 'just not relevant to us at our level'. Using a game helped to highlight the relevance to trainees of all levels. And it’s fun!

METHODS

STEP 1) Assign teams and encourage competitive spirits! Set a time limit and let the hunt begin!
STEP 2) Add distractors to increase the impact of human factors. When complete, ask groups to evaluate what went well/not well and why?
STEP 3) Define human factors. With this in mind, ask learners to make suggestions to how they could improve their performance in the scavenger hunt.
STEP 4) Apply this thought process to examples of error or near misses from their clinical practice.
STEP 5) Learners head back to their practice inspired and ready to champion changes to reduce clinical error!

RESULTS
• 33 attendees
• F1 and F2 level
• 100% found session relevant to training
• 100% enjoyed session
• Overall 37% increase in confidence
• Feedback included:
  "Really powerful and informative"
  "Interactive, fun, backed up by relevant information"
  "Turned a dry topic into something interesting and useful for our clinical practice"
  "Good that we all had to get involved, learnt a lot more by the practical demonstration in the scavenger hunt that I have in previous sessions on the topic"

REFERENCES

ACKNOWLEDGEMENTS
Thank you to Dr Amy Verrinder who is presenting and sharing this work and her experiences of the session here today at Bristol Patient Safety Conference.
Hearts over minds: Simulation as a tool to help change healthcare professionals’ attitudes to falls prevention

Lucy Baxter, Catherine Peel, Dean Metz, Subashini Thirugnanasothy
South Tyneside District Hospital

Introduction
Each year approximately 250000 patients fall in hospital, resulting in over 2500 hip fractures. Tailored multidisciplinary team (MDT) interventions can reduce falls by 20-30%. This Trust has a MDT falls prevention care plan developed in line with 2015 National Audit of Inpatient Falls recommendations. Completion of the falls care plan is 57% trust wide (January-May 2018) and 48% on the admissions unit.

Method
Participants were surveyed before and after a simulated scenario to establish their thoughts on falls prevention.

“Nothing stays the same unless you do something about it.”

The scenario
- Designed to be emotive
- Communication based
- Discussion with family member who is upset because:
  - Their Mum has been admitted with a fall
  - She had another fall after 48 hours
  - The falls care plan was not completed and staff had not taken any measures to reduce her falls risk

“The role play was totally scary but very informative, I took the whole experience on board for future training. Great way to teach falls prevention!”
- Staff Nurse

“After completing this session, I see the Falls Care Plan as an essential part of patient care. I will make it as much of a priority as clerking on a busy shift.”
- Medical Registrar

How important do you believe the Falls Care Plan is to patient care?

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<tr>
<th>% Importance</th>
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Target groups
1) Emergency Assessment Unit MDT:
- All patients are admitted here first
- Care plan should be completed early in admission
2) FY1 Doctors:
- Still ‘thirsty’ for knowledge and tips
- Work throughout hospital: make good ‘champions’ for the care plan

Results
✓ 39 attendees over 5 sessions
✓ All participants found the session useful
✓ Perceived importance of care plan increased overall
✓ 89% of attendees said they were more likely to complete the falls care plan following the session.

How would you describe the falls care plan?
Pre SIM

Post SIM

Evaluation
Simulation is a good tool to help change healthcare professionals’ attitudes to falls prevention
- Therefore we will continue to use the falls education pack and simulation scenario to educate on falls prevention.

Unfortunately this did not translate into practice and there was no increase in compliance

Time pressure was the most common cited reason for this.

Acknowledgements
Thank you to the simulation team and faculty for their support and assistance in the delivery of SIM and to the falls team for all the work past and present they’ve done to reduce falls.

References
1) National Audit of Inpatient Falls 2015 Summary, National Audit Organization, Department of Health
2) National Audit of Inpatient Falls 2017 Summary, National Audit Organization, Department of Health

What can we do about falls prevention? Please scan the QR code with your smartphone camera.
The improper management of Acute Kidney Injury (AKI) is a leading cause of preventable morbidity and mortality, which costs NHS England an estimated £1.02 billion per year\(^1\). At our institution, a hospital-specific “FLUIDS” care bundle for the management of AKI, based on guidelines from the National Institute for Health and Care Excellence, is in place:

- **Fluid balance** – Check for signs of dehydration and prescribe IV fluids if indicated
- **Low BP** (SBP <110mmHg) – withhold antihypertensive and monitor; bolus 250ml of 0.9% NaCl if hypovolemic unless evidence of symptomatic heart failure
- **Urine** – Urine dipstick for ALL and catheterise if palpable bladder/ urinary retention/ oliguric AKI stages 2 or 3
- **Imaging** – Request urgent renal USS if suspected obstruction/ no clear cause of AKI
- **Drugs** – Review medication and consider stopping nephrotoxins
- **Sepsis** – assess for signs of sepsis and urgent management if indicated (consider discussion with microbiology)

However, a preliminary analysis revealed that only 41.1% of patients identified to have AKI on admission were managed in full accordance with the care bundle.

**AIM**

This project set out to improve complete compliance with the local AKI care bundle within 24 hours of admission. We targeted three wards and aimed to increase complete compliance by 20% over a three-month period.

**METHODS**

Data was collected from 68 patients over 14 weeks, during which changes were implemented in the form of Plan-Do-Study-Act (PDSA) cycles. Two weeks of preliminary data collection were followed by three four-week cycles.

- **PDSA 1**
  - Alterations to the hospital’s medical admission pro forma
  - A hospital-wide screensaver
  - Posters on target wards

- **PDSA 2**
  - A care bundle sticker

- **PDSA 3**
  - Consultant-led teaching aimed at junior doctors

**RESULTS AND CONCLUSIONS**

Complete compliance with the AKI care bundle rose to:

- 62% (PDSA1)
- 83.5% (PDSA2)
- 87.5% (PDSA3)

This was a total increase of 46.4% on baseline [Figure 1]. Failure to complete urinalysis accounted for 83.3% of cases of sub-optimal management. The sticker was used in just 6.25% of patients (n=2), but led to full compliance in both cases.

This project far surpassed our initial target, demonstrating that the cumulative effect of several simple interventions can make a significant contribution to the optimal management of AKI.

**Figure 1.** A run chart to show the effect of three PDSA cycles on the outcome measure – percentage of patients managed in complete compliance with the “FLUIDS” AKI care bundle.

**RELEVANCE TO PATIENT SAFETY & QUALITY IMPROVEMENT**

AKI is multifactorial and definitive treatment depends on the underlying cause but, with most underlying causes, AKI can be easily reversed in the early stages. Failure to intervene appropriately, however, can lead to worsening AKI, loss of reversibility, prolonged hospital stay and increased treatment requirements; contributing to increased patient morbidity and mortality\(^2,3\). As such, the early provision of optimal management for AKI is key to prevent avoidable deterioration of the patient and improve healthcare outcomes.

**EFFICIENCY SAVINGS**

The same adverse consequences of sub-optimal early management for AKI lead to increased healthcare expenditure and are responsible for exerting significant pressure on the National Health Service budget\(^2,3\). The simplistic, low cost and relatively non-time intensive nature of these interventions offers the potential to reduce the substantial cost associated with avoidable AKI morbidity whilst requiring minimal outlay of resources. We, therefore, hope that our interventions will provide an easily implementable model for other institutions aiming to optimise AKI management.

**REFERENCES**


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**IMPACT**

This project far surpassed our initial target, demonstrating that the cumulative effect of several simple interventions can make a significant contribution to the optimal management of AKI.
An Audit to Evaluate Venous Thromboembolism Prophylaxis in Post-Operative Bowel Cancer Patients

Dr Benjamin Walters, Dr Sophie Collins
Royal Hampshire County Hospital

1. Background: There are almost 42,000 new diagnoses of bowel cancer each year in the UK, making it the 4th most common cancer [1]. These patients, particularly those who undergo operative management, are at a high risk of venous thromboembolism (VTE) due to increasing age, presence of carcinoma, potential chemotherapy, abdominal surgery, and post-operative immobility. We wanted to evaluate the VTE rates in post-operative bowel cancer patients at the Royal Hampshire County Hospital (RHCH) and identify if NICE guidance was being followed. NICE states that in addition to mechanical prophylaxis, pharmacological prophylaxis (either LMWH or fondaparinux), extended to 28 days, should be considered in those who have had major cancer surgery in the abdomen [2].

2. Standards of Care

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<thead>
<tr>
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<tr>
<td>28 days post-op LMWH</td>
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</tr>
<tr>
<td>Mechanical VTE prophylaxis</td>
<td>NICE 2018 CG89 1.14.2</td>
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3. Data Collection: Initial audit undertaken Spring 2018. Retrospective data collection using the RHCH colorectal database; a confidential excel spreadsheet comprising all patients admitted to the colorectal surgery team. We selected the year 2017, the diagnosis of bowel cancer and filtered to those who had abdominal/pelvic surgery, giving a total of 93 patients. Hampshire Health Records, EPR and JAC Medicines Management were accessed using hospital numbers to evaluate which pharmacological and mechanical VTE prophylaxis patients were prescribed as an inpatient. Discharge summaries were accessed to identify who was discharged on LMWH and if patients had suffered VTE post-operatively, be it during that admission or on a subsequent admission.

4. Findings:

- 3/93 (3%) patients suffered a DVT/PE post-operatively
- 10/93 (11%) met standard set by NICE for pharmacological VTE prophylaxis (1 due to an inpatient PE, 1 due to background of recurrent PEs and 7 due to pre-existing medical conditions and thus discharged on NOAC/Warfarin)
- 48/85 (56%) received mechanical VTE prophylaxis (of the remaining, only 3/37 had a justified contraindication)

5. Implementations: We presented these important findings to senior colorectal staff at a departmental meeting, sparking change in local guidelines to comply with NICE guidelines. We presented the findings to the cohort of foundation doctors, and updated them on the change of policy. We carried out ‘on-the-ward’ teaching regarding length of VTE prophylaxis, particularly aimed at facilitating weekend discharges covered by non-colorectal juniors.

6. Re-Audit at 6 Months

Using the same methods, we collected data from January – August 2018 yielding 66 patients, and found impressive improvements in all domains:

- 41/66 (62%) patients received 28 days of LMWH post-operatively as per NICE criteria, a marked increase from the original audit
- 0 patients suffered a DVT/PE post-operatively
- 45/66 (68%) patients received mechanical VTE prophylaxis
- 1/66 (1.5%) had bleeding significant enough to reduce duration of LMWH to less than 28 days

7. Ongoing Suggestions:

- Ongoing educations on wards
- Surgeon to write clearly in the ‘Post-Operative Note’ plan:
  - TED stockings to be prescribed
  - 28 days of enoxaparin post-operatively

Basingstoke are currently undertaking a parallel audit due to the success of this audit.

8. Cost Effectiveness:

The average annual cost of treating DVT/PE per clinical commissioning group (CCG) is over £900,000 with >55% of VTE occurring during or after hospital admission.[3] Evidence used to create NICE guidelines [2] found that extended VTE prophylaxis in post-operative abdominal surgery patients had an incremental net benefit of £49 per person when compared to those who did not receive thromboprophylaxis on discharge, and that life expectancy would have to be halved for it to no longer be cost-effective for these patients.

9. References:

2. NICE.org.uk. (2019). Recommendations | Venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolism | Guidance | NICE [online] Available at: https://www.nice.org.uk/guidance/ng89/chapter/Recommendations#interventions-for-people-having-abdominal-thoracic-or-head-and-neck-surgery
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Friday Ward Round Proforma
For patient safety and weekend staff’s sanity
Dr Annie Wood (FY2), Dr Isobel Spring (CT2), Dr Mohammed Malik (CT2)

Issue and Aim:
Documentation prior to the weekend is variable and inconsistent, putting undue pressure and decisions on weekend on-call staff. This project proposed to create consistent documentation with clear escalation plans for all patients prior to busy weekend shifts.

Background:
Currently all ward round documentation on a Friday is written on continuation sheets at the doctors discretion. The information varies from entry to entry, and some vital information is left undocumented, such as escalation plans. Weekend teams are not getting the handover information necessary for best patient care and safety.

As previously proven a good handover is key to allowing the safe transfer of care between teams1. It would be unfeasible to verbally hand over every inpatient at the weekend, therefore the written documentation on reviewing a patient is vital. Due to the inconsistency in what is documented in the patient plan and omission of important information such as escalation status it can create additional work, acting as a barrier to patient safety.

Other trusts have developed similar ideas2,3,4 reporting that it aided reviewing patients with more information to hand, escalation plans documented clearly to more senior decisions. We also reviewed the limitations and improvements, suggesting stickers were not practical, costly and not as easily available as an A4 sheet.

Results:
Pre implementation, a survey was conducted to gain staff views.
• 95% reported it was not easy to gather information when on-call
• ½ felt there were discrepancies between telephone and written information
• 82% of doctors felt escalation plans were not documented

Post implementation, a questionnaire for staff and data on use of the proforma was gathered.

• 83% of eligible patients had a proforma in their notes across all wards
• Diagnosis, Background and Today was filled in 100%
• 90% agreed the proforma was easy to fill in and should be implemented long term
• 72% of patients had a documented escalation plan on Friday
• More than half of doctors found it easy to find the information needed for reviewing patients
• Positive verbal feedback from all members of the MDT

Conclusion:
There was clear need for a way to unify information provided to the weekend team of doctors and nurses. This proforma was accepted by the MDT and provided vital information at the tips of the weekend teams fingers especially in emergency and time demanding situations.

Closed Loop Data:

• 90% of eligible patients in the hospital had a proforma in their notes
• As before, ‘diagnosis’, ‘background’ and ‘today’ sections were filled in 100%
• Comparisons between 2018 data and 2019 data reveal an improvement in the number of proformas being utilised.
• 81.3% of patients had a documented escalation plan on Friday- an improvement compared with our previous data

References:
4. Ekanayake L, Webster G, Stamilio T. What was said and when was the escalation plan delivered? BMJ Qual Improv Rep. 2020;9(2):e001378.

Plan: the plan made on the ward round that day
Escalation: prompt discussion with senior
Checklist: prompt juniors to remember and ask and do
SBAR: who to call and what information is needed if they call. Aid telephone handovers.

Comments post proforma

Improvements in sleep quality for hospital inpatients following a multidisciplinary quality improvement project

P Sparks, J Somerville, A Rimmer, O Angkanawatana, M Wood, N Perechuda, N Awal, N Kelsall

Introduction
Sleep plays an essential role in maintaining and restoring our physical and psychological health. Hospital inpatients suffering from acute illness are known to have disturbed sleep patterns. Sleep disturbance impairs recovery from acute illness by multiple mechanisms including dysregulated immune responses and neuropsychological dysfunction. Therefore, improving sleep quality in acute illness may promote recovery. In this multidisciplinary quality improvement project, we aimed to improve sleep quality for patients admitted to an Orthopaedic ward at Poole General Hospital.

Project Outcomes
Guided by preliminary data regarding patient-perceived barriers to sleep we designed four interventions which were assessed through separate plan-do-study-act cycles. The first was provision of earplugs on the evening drug round. The second was provision of chamomile tea on the evening tea round. The third was introduction of a protected sleep time from 11pm-7am which was advertised through posters. The fourth was a hospital-wide screensaver advertising the protected sleep time. The primary outcome was sleep quality measured by the Richards-Campbell Sleep Questionnaire (RCSQ). This tool has been validated for assessment of sleep quality in acute illness.

Results and Conclusions
Our preliminary data suggested that the most important patient-perceived barriers to sleep were noise and being woken for observations. At baseline, the mean RCSQ score was 5.1 (n=14). Provision of earplugs improved RCSQ by 2.3% (RCSQ=5.2, n=9). Provision of chamomile tea improved RCSQ 9.9% (RCSQ=5.6, n=6). Introduction of a protected sleep time advertised by posters led to a 17.7% reduction in RCSQ (RCSQ=4.2, n=11) and 14.5% reduction when advertised with screensavers (RCSQ=4.3, n=11).

Cost savings
Given the existing literature regarding the benefits of good quality sleep on the recovery from illness, it is possible that the present findings may be associated with physical health benefits. These benefits have not been investigated in the present work and should be an avenue of future research.

Relevance to quality improvement
This work provides evidence that simple multidisciplinary interventions can lead to small improvements in sleep quality for hospital inpatients. Specifically, provision of earplugs and chamomile tea is associated with improved sleep quality. Introduction of a protected sleep time did not improve sleep quality. Future work should focus on whether these improvements in sleep quality are associated with improvements in physical health outcomes such as length of admission or incidence of complications.

Patient reasons for poor sleep:
- Noise
- Being woken for observations
- Uncontrolled symptoms

References
USE OF A PAEDIATRIC ORTHOPAEDIC ADMISSION BOOKLET SIGNIFICANTLY IMPROVES CLERKING DOCUMENTATION

Beverstock A, Lewis C, Bruce D, Kelly A, Barnes J
Bristol Royal Hospital for Children

Aim
To improve the quality of documentation of paediatric orthopaedic emergency admissions using an admission booklet with prompts for history taking, examination and investigation results.

Methodology
Baseline audit: Standards created using Royal College of Physician Healthcare Record Standards and local guidelines.

Case identification: 40 emergency admissions audited using scanned patient notes—excluded if no admission clerking identified. Cases all clerked on blank continuation sheets.

Intervention: Clerking booklet introduced for all emergency admissions.

Repeat audit: Further 40 admissions audited, all using the booklet. Standards compared.

Results
12 of 18 standards reached 100% inclusion when documented on admission booklet.

Results of standards with <80% inclusion when clerked on blank paper:

- Time
- Referral source
- Location seen
- Bleep
- Consultant
- Person with child
- Past medical Hx
- Medications
- Vaccinations
- Allergies
- Social Hx
- Investigations

Overall compliance improved: 64% → 98%

Discussion
- Simple and effective way to improve documentation
- ‘Time’ worse: likely due to combined ‘date/time’ box—which has been altered for future booklets (separate box for each)
- Will be introduced across all paediatric specialties in our Trust

andrew.beverstock@uhbristol.nhs.uk

Many thanks to N Conway for her assistance with data visualisation and poster design

Improving care of nursing home residents with dementia by implementing a new model for annual dementia reviews

A quality improvement project by Dr J Westwood, Dr B Mayhew, Dr Z Green, Dr V Sudunagunta and Dr G Shaw

Background

- 850,000 people with a dementia diagnosis in the UK
- Dementia QOF for yearly face-to-face dementia reviews
- Vulnerable and highly comorbid cohort.

Methodology

STUDY: Assessment of current dementia advice
• Review NICE guidelines recommendations for Dementia Annual Reviews
• Review dementia QOF requirements in primary care

ACT: Quantify current practice and clinician views
• Compare last 20 reviews to 12 domains outlined in NICE guidelines
• Questionnaire to clinicians regarding use of current template

PLAN: Create new Annual Dementia Review (ADR) template
• Based on NICE guidelines
• Incorporating feedback from questionnaire

DO: Trial new template
• Multiple members of staff
• 10 annual dementia reviews using new template completed

STUDY: Review change
• Comparison of results assessing for degree of improvement

Aims

• This project aimed to improve quality and standardise annual dementia reviews undertaken in nursing homes by GPs, thus improving quality of care and safety in this cohort.
• Create new annual dementia review template on basis of NICE guidelines and successfully implement use

Results

• The physician questionnaire found only 17% regarded the current template useful; 0 of the last 20 ADRs had used it.
• A comparison in the 12 domains of 20 ADRs pre-, and 10 ADRs post-new template implementation found significant improvement in all domains (fig.3).
• 42% rise in symptom assessments, 43% increase in mood reviews, and a 53% improvement in medication reviews.
• A 69% increase in recording of advanced care plans was seen

Conclusions

1. The creation of a dementia template allows for standardisation of care reducing inter-physician discrepancy between assessments
2. Significant increased % of assessment in every domain deemed by NICE guidance to be essential to annual dementia review
3. Noted an increase in number of patients with advanced care planning – potentially cost-saving implications via avoidance of unnecessary hospital admissions
4. Assessment lead to an increased percentage of physical assessments and symptom assessment allowing optimisation of chronic conditions and treatment of acute illnesses - reducing risks of associated disease sequelae and consequential costs.
5. Efficiency savings via reduction of time taken for GPs to complete dementia assessments

Limitations and future considerations

• Small sample size, in order to increase power of study would need further data collected
• Lack of MDT participation - recommend a repeat of the cycle with nurse led dementia reviews with GP input
• Larger variety of clinicians to use the template to assess real world application.
• Unable to transfer the template onto system for digital use, recommend integration of template onto EMIS system

References

2. NHS England Good care planning guide for dementia – case study: Example QOF annual review templates. Published 2017
3. NICE CKS Guidelines “Follow up of confirmed dementia in primary care” https://cks.nice.org.uk/dementia#!scenario:1 accessed 28/12/18
A SEPSIS QUALITY IMPROVEMENT PROJECT ON AN ACUTE MEDICAL WARD IN AN INNER CITY HOSPITAL

K. Nweze¹, N. Hansi¹, A. Iqbal¹, N. Fletcher², A. Rochford¹
¹Gastroenterology, Newham University Hospital, Barts Health NHS Trust, London UK
²Department of Medical Education, Newham University Hospital, Barts Health NHS Trust, London, UK

Background

- Sepsis is defined as organ dysfunction caused by a dysregulated host response to infection and is thought to be the cause of >46,000 deaths per year in the UK.¹,²
- Research has shown that implementation of the ‘Sepsis Six’ in the first hour of recognition can reduce mortality by as much as 50%.³ As such, understanding and management of sepsis has become a core competency across multiple healthcare curricula.
- Preliminary data from our target ward showed that 0% of patients were receiving antibiotics within the first hour of recognition.

Objectives

The aim of the project was to improve the assessment and management of patients with sepsis on an acute medical ward through the use of facilitated multi-professional learning.

Methods

An initial preliminary questionnaire was distributed in March 2018 to multiple healthcare professionals to assess their baseline knowledge of sepsis.

Interventions:

1. Teaching Programme - A bespoke teaching programme was designed and delivered based on the results of the questionnaire. A weekly teaching programme was delivered by two clinical education fellows consisting of four x 15 minute case-based teaching sessions for ward doctors and nurses.
2. Knowledge based assessment - Pre- and post-teaching questionnaires were used to assess staff knowledge and confidence.
3. Sepsis Proforma - A standardized proforma with clinical intervention prompts was developed and used on the ward for patients with suspected sepsis.
4. Sepsis Trolley - Equipped with blood culture bottles, arterial blood gases and cannulation equipment was made available on the ward.
5. Sepsis champion – Was identified and used to promote the work across the multi-professional team.

Baseline knowledge of managing patients with sepsis demonstrated a need for improvement

A pre-intervention questionnaire was sent to members of the ward MDT. 23 responses were received (15 doctors, 6 nurses, 2 allied healthcare professionals).

Sepsis education:
- 87% recalled face to face teaching, 52% ward based and 43% e-learning.

Sepsis recognition:
- 60% felt confident in recognising sepsis.
- Most were familiar with the NEWS score, 50% staff used AVPU.

Knowledge:
- 13% correctly identified Sepsis Red Flags
- 43% correctly identified Sepsis 6 Care Bundle
- 56% responders felt confident anticipating and managing sepsis.

Responders acknowledge poor early recognition of the patient with suspected sepsis.

Lack of training and workload of nursing staff was raised as major delays to treatment.

Results

Percentage of correct answers were seen to rise immediately after teaching.

Confidence recognising Sepsis

Confidence escalating Sepsis

Confidence anticipating Sepsis

Confidence implementing Sepsis 6

Confidence managing Sepsis

Figure 2 - Immediate improvement in reported confidence following teaching sessions

Figure 3 - Test of knowledge immediately post teaching programme

Figure 4 - Test of knowledge 3 months post teaching programme

Discussion

- We have demonstrated the benefit of using a bespoke, multi-dimensional intervention to improve the knowledge, skills and attitudes of clinical staff regarding the management of patients with suspected sepsis.
- The intervention has shown consistent improvement over a 3 month period.
- Staff have been able to supplement their learning with access to other sources of information such as e-learning.
- We believe that the critical factor for success was assessing knowledge across the MDT in a non-judgmental fashion and using this information to design and deliver bespoke interventions for that team.
- We believe that ward-based clinical simulation should be the focus of future ward-based teaching; however, the logistics of implementing this are challenging.
- Work is on-going to assess and evaluate the clinical outcomes of this project. Further work involves re-auditng antibiotic prescribing and mortality.

References


Fig. 1 Schematic of all components of Sepsis Quality Improvement Project on our target ward

Fig. 2: Comparison of responses of quantitative questionnaire assessing level of confidence before and after teaching on a Likert scale. N=19.

Fig. 3: Comparison of percentage of correct responses to 4 clinically orientated questions around Sepsis criteria and escalation. N=19. Percentage of correct answers were seen to rise immediately after teaching.

Fig. 4: Percentage of correct responses for recognition of the septic patient (left) and identification of Sepsis Six (right) from participants 3 months after teaching programme. (N=13, doctors = 6, nurses = 7). 12/13 identified the septic patient in all case based scenarios (A) and 12/13 could identify all elements of Sepsis Six.

Fig. 5: Qualitative feedback from staff following teaching sessions.
Improving Discussion about Escalation and DNACPR in Oncology

Joseph Page, Jason Chai, Katherine Belfield, Rebecca Squires, Esther Hindley, Rachel McCoubrie (Supervisor)
Bristol Haematology and Oncology Centre, University Hospitals Bristol

Background:
➢ Oncology patients are regularly confronted with the decision to choose between continued treatment and best supportive care (1)
➢ The most appropriate time to discuss CPR is difficult for both the patient and clinician
➢ Early and open dialogue is frequently reported as a practical solution to improving the decision-making process (2,3)

Aims:
1) To ensure that all patients admitted to oncology had an appropriate CPR decision established
2) CPR decision to be made within 48 hours
3) Consultant oncology to review decision within 48 hours of it being made

Methods:
➢ CPR decisions audited at baseline and monthly for 5 cycles
➢ Decisions were deemed appropriate based on treatment intent, prognosis and functional status

Results:

Interventions:
1) Changing departmental culture:
   ➢ Discussions during board rounds, including “Messages of the Week”
   ➢ Encouraging use of admission paperwork by nursing staff to include DNACPR
2) Staff education:
   ➢ Teaching sessions where staff nurses were taught about principles behind DNACPR
   ➢ Mortality and Morbidity presentation
3) Changing systems and protocols:
   ➢ Adjusting electronic clerking proforma with DNACPR
   ➢ Safety brief and handover

Conclusion:
➢ DNACPR discussions often occur at the point of deterioration
➢ Early discussions can enable patients and their families to start processing the concept of their deterioration and death
➢ Inappropriate CPR denies patients of a good death and causes unnecessary distress to all
➢ Our QIP creates a conducive environment to discuss deterioration, death and dying within an acute oncology service

Ongoing plans: discussion with patient members of the Trust to share experiences of DNACPR discussions

References:
Sepsis screening

Barney Kyle, consultant anaesthetist and clinical lead for sepsis
Pippa Richards, sepsis lead nurse
Sandy Patterson, sepsis awareness nurse
Carole Russ, operational governance liaison
Rowena Ford, junior sister (ED)
Sarah Crean, assistant practitioner (ED)
Nikala Jones, midwife (maternity)
Linda Whiteford, consultant paediatrician
Charlotte Evans, junior sister (AMU)
Gary Filer, clinical quality and patient safety analyst
Outreach team
Carrie Langley, emergency medicine consultant
Karen Tyler, lead nurse
Sarah Ames, process design analyst

Aim
Screen a minimum of 90% of patients who need it.

Why
- Early diagnosis and intervention
- Promotes better clinical outcomes and may avoid deaths.
- Reduction in length of stay
- Reduces bed day costs
- Improves patient flow

How
Developed improvement driver diagram to ensure change ideas deliver aim. Used ‘Plan, Do, Study, Act’ cycles to test ideas. Took learning from each test.

Created visual prompts for observation machines
Visited departments to engage colleagues and encourage learning
Refreshed intranet information pages
Established staff recognition scheme to highlight those successfully screening and treating sepsis

Comprehensive communications strategy
Created high-impact video and presentation of patient’s sepsis experience
Review notes regularly to learn from where things didn’t go as expected
Sepsis champions surveying wards on screening compliance

Results
Screening is above 90% for admission units and 80% for inpatients.

With sustained increase since April 2017.

Over 360 healthcare assistants, doctors and nurses awarded ‘Sepsis star’ for recognising, screening and commencing ‘sepsis six’ using proforma.

816 trained since April 2017

Trust-wide use of screening proforma, modelled on The UK Sepsis Trust.

Greater awareness of long-term impact on patients and families.

Trust is a rotating host for sepsis support group.

Sepsis has been referred to before as a ‘silent killer’; silent, because it can be extremely difficult to identify for both professionals and the public alike, with symptoms often suggesting less serious illnesses. Sepsis claims more lives than lung cancer, is the second biggest cause of death after cardiovascular disease, and is the cause of more than double the annual deaths from breast and bowel cancer combined. See sepsistrust.org/about/about-sepsis/ for further info.

Percentage of patients requiring screening that were screened
- 66.7% (100/150)
- 99.3% (149/150)

Percentage of patients with red flag sepsis where antibiotics were given within 60 minutes of NEWS time
- 85.7% (6/7)
- 94.2% (16/17)

Percentage of patients with red flag sepsis where antibiotics prescription was reviewed within 72 hours
- 100% (7/7)
- 70.5% (12/17)

Total antibiotics consumption for all areas:

Reduction in length of stay
Improves patient flow
Reduces bed day costs
Greater awareness of long-term impact on patients and families.

Musgrove Park Hospital, Taunton, United Kingdom
Being S.U.R.E.—The Patient List Redefined

Shah V*, Davidson R*, Ramkissoon S*, Jain P*

*Junior Doctor, St. Mary’s Hospital London, Imperial Healthcare Trust, *Senior Sister, Clinical Informatics, St. Mary’s Hospital, Imperial Healthcare Trust

Background

Patient lists are the mainstay of effective handover and accurate aide-memoire throughout the hospital environment. It was noted that the patient list used on the adult intensive care unit (AICU) at St. Mary’s Hospital had minimal and irrelevant information. This frustrated doctors and nurses, prolonged handovers and risked patient safety incidents. Doctors and nurses often wasted time updating their own individual lists and this further impacted clinical continuity. The old patient list is pictured below.

A thematic analysis of the initial pre-intervention survey yielded four key qualities of a good patient list. Our aim was to make a patient list that was: Safe, Useful, Relevant and Efficient (S.U.R.E).

Intervention

IntelliSpace Critical Care & Anaesthesia (ICCA), is an IT patient data management system designed by Philips and used by St. Mary’s AICU. Using existing functionalities and developing new ones, we designed a new patient list. We reformatted the layout and included key patient information such as demographics, diagnosis and current issues—these were highlighted on our survey as the most important inclusion on a patient list. ICCA now auto-populates the new list every morning and evening prior to handover with information from the most recent medical review – forgoing the need to maintain the list manually. This ensures the list is up-to-date, clinically relevant and efficient to produce.

The new patient list is pictured above. CPR status was not one of our initial interventions, however, it was later added at the request of band 7 senior sisters after closing the loop, prior to the post-intervention survey.

17 doctors were surveyed before and after the intervention—closing the PDSA cycle.

100% of doctors felt the old list needed to be improved.

100% of doctors felt the new list was an improvement over the old one.

The list was scored on our four domains: Safety, Usefulness, Relevance and Efficiency (SURE). The new list significantly outperformed the old one: (higher is better, out of 10)

<table>
<thead>
<tr>
<th>Safe</th>
<th>New list (median score)</th>
<th>Old list (median score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

35% of doctors experienced patient safety incidents (PSI’s) because of the old list, compared to only 6% with the new list:

Some comments about our old list from the pre-intervention survey:

“not clinically useful” “very little info on it” “no space for notes” “most inefficient list I have used” “no diagnosis information” “no real information that’s useful for handover”

Some comments about our new list from the post intervention survey:

“handy to have the background information of the patients rather than writing it down every shift” “easier, safe handover” “concise, informative and useful” “more useful details, enough space for notes” “contains pertinent details and tasks making a streamlined, yet relevant handover list”

Conclusion

Updated, clinically relevant patient lists are vital to ensure optimal patient care and safe handover between shifts for both doctors and nurses. The new list has decreased patient safety incidents experienced by doctors by 29%, and verbal feedback from nurses has also been overwhelmingly positive. Concise, thorough clinical information prevents confusion between patients with similar names or presentations and aids acute management. Auto-population ensures relevance, efficiency and accuracy, as often, user-dependent lists collect old information over time.

All three of us have now left the unit, but the list is still very much in use amongst the current doctors and nursing staff. Furthermore, the paediatric intensive care unit have decided to also base a handover list on this format.
Improving Care of Children and Young People Presenting to the Emergency Department with Surgical Problems

Max Denning, Zhi-Yang Low, Hao Meng Yip, Charlotte Clements
North Middlesex University Hospital NHS Foundation Trust

ABSTRACT

Background

North Middlesex University Hospital sees 48,000 children each year, of which a subset attend with Urological or General Surgical complaints. Accident & Emergency is largely staffed by clinicians with limited experience in paediatrics. At present no trust guidelines exist. A recent serious incident occurred due to a missed testicular torsion and this highlighted the need for paediatric surgical guidelines.

Objective: To demonstrate if they felt guidelines would be helpful.

Methods: Attendance and admission data was examined to demonstrate the surgically relevant cases. Survey response were collected from clinicians regarding their level of experience, their confidence in dealing with paediatric surgical cases as well as frequency and common sources of further information. Finally we asked clinicians to demonstrate if they felt guidelines would be helpful.

Results: 691 attendances and 235 admissions occurred in the timeframe examined. 75% of attendances had less than 6 months experience in paediatrics after graduating medical school. 94% had managed surgical patients in paediatric ED yet only 75% confident of who or where they should be referring patients. 49% of attendees stated they ‘always’ or ‘frequently’ sought senior or online advice regarding paediatric surgical patients. 70% of trainees used non-trust guidelines online or a textbook. 62% respondents indicated guidelines would be extremely useful. 100% felt they would either be very useful or extremely useful.

Conclusions: A significant burden of pathology attends and is admitted each year and yet no guidelines were available. The guidelines are in the process of ratification by respective trust guidelines and will be available online or in a textbook. 62% respondents indicated guidelines would be extremely useful. 100% felt they would either be very useful or extremely useful.

Results

Methods

Attendance Data

- As a baseline we sought to determine the burden of surgical pathology attending the North Middlesex Paediatric ED
- We analysed the number of patients attending with the following presenting complaints:
  - Abdominal pain
  - Appendicitis or testicular pain
  - Testicular torsion
  - Intussusception
- We calculated the number of attendances to PAU, Starlight ward, Rainbow ward or theatres with:
  - Testicular torsion, Torsion of the hydatid of Morgani, Epidymo-orchitis, Hydrocele, Balanitis, Paraphimosis, Appendicitis, Inguinal hernia, Pyodic abscess, Malignation, Intussusception, and Umbilical hernias

Clinician Factors

- In addition to demonstrating the burden of surgical pathology that is treated, we sought to demonstrate a need for the guidelines
- We used self reported survey data to demonstrate:
  - Amount of post-graduate paediatric experience
  - Frequency with which juniors seek guidance
  - Sources of advice
  - Confidence of juniors in dealing with paediatric surgical emergencies
  - Demand for a set of paediatric surgical guidelines

Guideline Formation

- After these baselining activities 2 sets of guidelines were produced:
  - Guidelines were referenced against current NICE guidance
  - Guidelines were intended not to be fully comprehensive, but a quick reference guide in sufficient depth for ED clinicians
  - Guidelines include a small number of pictures to aid in understanding and recognition of conditions
  - The guidelines were tested and submitted to allied specialties for approval
  - The guidelines will be evaluated with a closing loop of the audit after implementation next month
  - After implementation, we intend to audit clinical notes and compare them against guidelines and best practice

How much experience do you have in paediatrics since graduating medical school?

- 75% of trainees had less than 6 months experience in paediatrics after graduating medical school (see Fig. 3)
- 34% had managed surgical patients in paediatric ED
  - Respondents were only 71% confident of who or where they should be referring patients
- 88% of trainees stated they ‘always’ or ‘frequently’ sought senior or online advice regarding paediatric surgical patients (Fig. 4)
- 56% of trainees consulted non-trust guidelines online or used a textbook
- Trainee confidence in dealing with the paediatric surgical subset of patients gave a mean VAS of 57%

Clinician Factors

- These survey data shows doctors working within the paediatric ED treat patients with surgical pathology yet have limited paediatric experience
- These doctors frequently seek guidance from a number of sources and do not feel fully comfortable in treating this subset of patients
- 62% respondents indicated guidelines would be extremely useful
- 100% felt they would either be very useful or extremely useful

Limitations

- The data collected in this project is not necessarily representative of the whole sample due to variations in the coding of presenting complaints.
- As with all survey data, answers may not be representative of a fully stratified sample
- As survey data was collected retrospectively, findings about the efficacy of the intervention will have to be interpreted with caution.

Conclusions

- A significant number of paediatric surgical conditions present to the ED each year and yet no guidelines were available
- A significant burden of pathology attends and is admitted each year
- There is a demand for some Paediatric Surgical Guidelines
- These Paediatric Surgical Guidelines are hoped to improve the confidence, efficiency, and clinical knowledge
- The guidelines are in the process of ratification by respective departments and shall be implemented shortly.

For additional information please contact:
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North Middlesex University Hospital Trust, Accident & Emergency Department
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Introduction

- Multiple myeloma (MM) accounts for 1% of all cancers and ~13% of all haematological malignancies, with approximately 86000 new cases occurring annually worldwide.
- High-dose chemotherapy (HDT) with autologous stem cell transplantation (ASCT) is the standard of care for eligible MM patients with improved progression free and overall survival.
- Our ambulatory care unit (ACU) has been delivering HDT/ASCT for MM using the following pathway:
  - As multiple myeloma remains the biggest indication for stem cell transplantation in the UK, continued optimisation of the transplant pathways for patients is of interest.
  - Our aim was to review our ambulatory care pathway (AC) for MM patients who underwent HDT/ASCT to assess its safety, efficacy and outcomes.

Results

- Distribution of the date of hospital admission from ambulatory care post-transplant

![Graph showing distribution of hospital admission dates](image)

- Post-transplant response and complications:

<table>
<thead>
<tr>
<th>Disease status at 3 months:</th>
<th>Number of patients (% of total known cases)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete response (CR)</td>
<td>1 (2%)</td>
</tr>
<tr>
<td>Very good partial response (VGPR)</td>
<td>33 (6%)</td>
</tr>
<tr>
<td>Partial response (PR)</td>
<td>17 (31%)</td>
</tr>
<tr>
<td>Number of patients who relapsed</td>
<td>24 (53%)</td>
</tr>
<tr>
<td>Median progression free survival in months</td>
<td>20.2 (19-21.5)</td>
</tr>
<tr>
<td>Median duration to follow-up in months</td>
<td>27.4 (21-46.4)</td>
</tr>
</tbody>
</table>

- Areas where we have done well:
  - Patient can receive HDT/ASCT on a day care basis with full nursing and medical support, while staying in a nearby hotel → granted more freedom, mobility and time outside of hospital and allow more appropriate use of limited inpatient resources
  - Admissions from AC to hospital done in a safely and timely manner
  - 38 (70%) patients did not require readmission within a year post-transplant

- Areas where we could improve on:
  - Hospital admission from AC during ASCT due to toxicity
  - Symptom control → common indication (11%) for post-discharge readmissions
  - Need for vigilant management of symptoms in the post-transplant period:
    - Symptom control e.g. nausea, vomiting and mucositis (59%), fatigue (52%), back pain (26%) and neuropathies (31%)
    - These could be managed with lifestyle advice, exercise programs and diet

- Future work:
  - Look at longer-term outcomes of the AC pathway beyond a year
  - Evidence for financial cost-savings of AC pathway compared to standard practice
  - Anecdotal feedback regarding patient experience

Discussion

- The AC mode offered for myeloma patients undergoing HDT/ASCT is a safe alternative pathway.
- Symptom control remains a significant issue and need in this period.
- The pathway could therefore be improved further by addressing early symptom control management to allow patients maximum benefit.

Conclusion

- The AC model offered for myeloma patients undergoing HDT/ASCT is a safe alternative pathway.
- Symptom control remains an important issue and need in this period.
- The pathway could therefore be improved further by addressing early symptom control management to allow patients maximum benefit.

References

1. Hao Meng Yip, Dunnya De-Silva, Kwee Yong, UCL Cancer Institute
2. British Society of Bone Marrow Transplantation, ‘2016 Uk & Roi Transplant Table Indications’, in British Society of Bone Marrow Transplantation Relapse, 1 (2016), 45-48
6. British Society of Bone Marrow Transplantation, ‘2014 Uk & Roi Transplant Table Indications’, in British Society of Bone Marrow Transplantation Relapse, 1 (2014), 1-32
Reducing heel pressure ulcers in an episode of care

Aim
Reduce incidents of heel pressure damage in an episode of care by between August 2018 and July 2019.

Why
In serious cases, pressure ulcers can be life-threatening. Even lower grade pressure ulcers are often extremely painful and debilitating and can cause extended length of stay in hospital.

Many pressure ulcers are preventable.

How
Tests of change include:

- Additional spot checks, increasing use of SSKIN bundle
- Wards encouraged to add pressure damage to handover and huddles
- Exposing heels when bandaging, if appropriate
- ‘Keep heels healthy’ patient posters, promoting what patients can do to reduce the chances of pressure damage
- ‘Reveal the heel’ campaign, promoting visualisation of skin between dressings, using mirrors. Particularly helpful for patients with mobility difficulties as it reduces manual handling.
- Correct categorising and documentation of pressure ulcers. Reviewing notes to accurately determine the root cause.
- Empowering healthcare assistants to make autonomous decisions on pressure relieving equipment, and encouraging them to speak up
- Therapy colleagues encouraged to undertake pressure ulcer training and contribute to checking skin.

Results and Spread
Latest data, to 1 May 2019, shows the two wards trialling changes have gone a combined total of

532
DAYS WITHOUT A PRESSURE ULCER IN AN EPISODE OF CARE

We are sharing learning and spreading success on other wards.

Preventing the risk of acquiring them in hospital improves:

- Health outcomes
- Quality of care
- Patient experience
- Patient safety
- And reduces extended length of stay
Introduction
The 'Start Smart- Then Focus' toolkit is an antimicrobial stewardship programme led by Public Health England to combat the increasing threat of antibiotic resistance on patient safety in the 21st century. One key aspect of this is to promote proper documentation of antibiotic prescriptions including: indication, stop/review date & a 48-72 hour intravenous antibiotic review. Poor documentation can lead to prolonged courses of antibiotics beyond therapeutic benefit & thus: resistance selection, associated illnesses (C.Difficile), increased side effects & healthcare costs.

Aims
● To audit antibiotic prescribing documentation against current guidelines
● Create intervention to educate prescribers & to inform allied health professionals of the standards
● Re-audit to evaluate for improvement
● Establish ongoing audit for successive junior doctors to continue

Guidelines

Start Smart Then Focus

ANTIMICROBIAL STEWARDSHIP Treatment algorithm

DO NOT START ANTIBIOTICS IN THE ABSENCE OF CLINICAL EVIDENCE OF BACTERIAL INFECTION

CLINICAL REVIEW & DECISION AT 48-72 HOURS

Clinical review, check microbiology and make a clear plan. Document this decision.

1. STOP
2. W/ bacterial etiology
3. Change antibiotic
4. Continue
5. DONOT

DOCUMENT ALL DECISIONS

Guidelines

• Guidance supported by Public Health England
• Aims to instruct health care providers on the appropriate use & prescription of antibiotics
• Many hospitals have read this guideline but very few have implemented an antibiotic stewardship programme

Process, Methods & Outcomes

Stage 1: Planning: Literature search, national guidelines, & problem identification in clinical setting
Stage 2: 1st Cycle: All inpatient prescription charts were reviewed for: Indication Stop/review date IV 72 hr review
Stage 3: Intervention: 3 tier educational awareness campaign aimed towards the MDT members
Stage 4: 2nd Cycle: Prescription charts were re-audited
Stage 5: Analysis, Conclusions, presentation & future sustainability plan

Results

Indication for Antibiotic

Stop/Rv Date for Antibiotic

72hr IV Rv for Antibiotic

Documentation rate improved from 9 > 85%
Documentation rate improved from 21 > 81%
Documentation rate improved from 3 > 81%

Conclusion

1) Improvement of antibiotic prescribing in all three categories achieved in time efficient audit
2) Raises awareness of importance of appropriate antibiotic prescribing
3) Potential economical impacts (reduced length of stay and monetary expenditure)
4) Positive impact on patient safety short term: reduced risk of C. difficile infection, side effects & long term: reduced risk of antibiotic resistance

References


Contact: nikheel.patel@icloud.com
MIst
Micro In situ Simulation Training
Phenytoin

Inspired by patient safety concerns raised in the ED about the prescription and administration of intravenous loading doses of phenytoin we set out to design a multiprofessional, simulation-based learning session.

Datix

**PHENYTOIN**
Patient safety concerns
SIRI
Status epilepticus
Loading dose

Team

Medication safety
CCOT
SIMULATION
ED
ICU
Anaesthetics

In situ in BUSY Emergency Dept

Early morning

Guidelines
BNF
Pharmacy
Infusion pumps
Phenytoin filters

23 staff trained in first session

Improving knowledge

First aid
Status epilepticus guideline
Phenytoin dosing (loading dose and adjustments)
Rate of infusion
Pump and filter set up
Monitoring

Testing the system
Where's the phenytoin?
Where are the keys?
How to use the filters
Cardiac monitoring
Guidelines and prescribing stickers

- 5 minutes with each participant
- Scenario adjusted in real-time to suit experience and role
- On-the-spot debrief
- Real equipment in real setting

Brought to you by the Simulation Team

Emily Heathfield, Robyn Jacobs, Mark Fleet, Donna Baker-Lacey, Fraser Brown
Correspondence to: e.heathfield@nhls.net

@ASPHgas
**Background**

NICE have stated that all adults aged over 65 should have a full clinical assessment before a diagnosis of urinary tract infection (UTI) is made. The clinical assessment should include a face-to-face review, physical examination, assessment of pulse, blood pressure and recording of symptoms. In over 65s, urine dipsticks are not recommended in the investigation of UTI due to their variable accuracy.

The aim of our QI project is to reduce the use of urine dipsticks in the diagnosis of UTI in >65 year olds. Instead, we encouraged the use of clinical assessment, sending a urine sample for culture and treating for a UTI on clinical suspicion.

**Aims and Drivers**

**AIM**
- To reduce the number of urine dipsticks performed for suspected UTI in over 65 year olds.

**BALANCING MEASURES**
- Reducing the reliance of urine dips in clinical practice
- Changing the belief that a negative dip can be reliable in ruling out UTIs

**INTENDED BENEFITS**
- To reduce the rate of >65s being diagnosed with UTI off dipstick alone
- To improve antibiotic prescribing in UTIs in over 65s

**PRIMARY DRIVERS**
- Improving knowledge amongst staff members around the use of urine dips in >65s
- Improving the clinical assessment in >65s with suspected UTI
- Improving documentation of urine dips in notes if used for non-UTI investigation

**SECONDARY DRIVERS**
- ED based teaching for nursing staff
- Posters in clinical areas to target reducing urine dips in >65s
- Grand round presentation to the medical and surgical teams
- Publishing an article in the newsletter to encourage the use of NICE guidance when considering UTIs in >65 year olds

**Data Collection**

Over 9 weeks, we randomly selected 5 over 65 year olds who had presented to ED as an emergency admission, to see whether they had a urine dipstick performed:

- Week 5 = Introduction of ward teaching
- Week 6 = Introduction of ward posters
- Week 7 = Grand round teaching

**Outcomes**

- Reduction in patients aged >65 having a urine dipstick as investigation for a suspected UTI in the ED department
- Increased awareness and education of staff in treating a UTI in over 65s on clinical suspicion following a thorough history and examination
- Reduced numbers of urine dipsticks being used therefore saving money for Weston Area Health Trust

**References**

1. National Institute for Health and Care Excellence (NICE); Urinary tract infections in adults, Quality Standard, June 2015 (NG 109)
Background:
Incorrect prescribing of vancomycin is potentially threatening to patient safety. In Weston Area Health Trust, baseline data showed that only 50% of patients received the correct dose, 75% received correct frequency, 74% had levels checked appropriately and 62% had dose adjusted as needed. To address this issue, a vancomycin drug chart was designed and implemented alongside a drug specific dose calculator application.

Driver Diagram:

AIM
Aim measure
Reduce vancomycin prescribing errors to zero by the end of July 2019

PRIMARY DRIVERS
Outcome measures:
- Education
- Raising awareness
- Tools to improve prescribing

SECONDARY DRIVERS
Process measures:
- WESMILE (hospital magazine)
- Grand rounds
- Dose calculator
- Trust wide communication

Results:
The project was initiated with a baseline audit which showed that 50% of patients were receiving the correct dose, 75% at the correct frequency, 74% had their levels check appropriately and 62% had their dose adjusted appropriately.

We subsequently introduced a chart to attempt to ensure safer prescribing of the medication, by sending a trust-wide email and discussing it a medical grand round. We were also the ‘hot topic’ in the Weston General Hospital ‘WESMILE’ magazine to further publicise its usage. Our final intervention was the introduction of the vancomycin and creatinine clearance calculator on the trust intranet, which made dose calculation much more simple for the prescriber.

Our data collected after the chart showed improvement in prescribing accuracy over all four domains with correct dose in 86.7%, correct frequency in 100%, levels checked correctly in 88.9% and dose adjusted correctly in 83.3%.

Lessons Learnt:
- The vancomycin chart and calculator have improved safe prescribing of vancomycin.
- As awareness has increased there has been a more sustained improvement in vancomycin prescribing.
- Our survey to prescribers highlighted some minor issues with the chart.

Next Steps:
- To improve the current chart as suggested by the survey and then to gain further feedback on the amendments.
- To continually monitor accuracy of vancomycin prescribing.
- Set up a strategy to make new foundation doctors at the beginning of August aware of the chart and calculator.
Standardising Management of Acute Agitation in patients with Acquired Brain Injury
Dr Thomas Salisbury FY2

Introduction
- Neuropsychiatric disorders are a very common consequence of acquired brain injury, both traumatic and non-traumatic.
- Agitation and aggression occur in approximately 33% of those with brain injuries.
- This can lead to significant consequences to both carers and the patient.
- Agitation is managed using both pharmacological and non-pharmacological techniques.
- We identified on our Neuro-rehabilitation unit that Agitation was not being assessed in a standardised fashion and therefore appropriate management was not being used.

Definition
“Subtype of delirium unique to TBI which occurs during period of Post-traumatic amnesia, characterized by excess of behaviour that includes some combination of aggression, disinhibition, akathisia, disinhibition, and emotional liability.”

Method
- This was a retrospective study. We highlighted all patients within the last two years with brain injuries.
- We selected the most recent 40 patients with documented agitation, and identified whether a standardised tool had been used to assess their agitation, and whether pharmacological methods had been used to help the patient.

Results

<table>
<thead>
<tr>
<th>ABS Scale completed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>
- Initially we identified that none of the 40 patients with Documented Agitation had a completed ABS Scale before commencement of treatment.
- Following this we instrumented MDT wide education around the use of the ABS; focusing particularly on Nurse and HCA education.
- Posters were also created and placed around the ward as visual prompts for completion of the scale.
- Following this implementation a re-audit was completed 1 year later; this demonstrated an improvement to 71% completion rate.
- Furthermore all but 1 patient requiring pharmacological intervention had an ABS Scale performed prior to management.

Conclusion
- Following our intervention there was a significant improvement in standardisation of management of agitation. This in theory should lead to better outcomes for the patient and carers.
- There were still a number of cases where an ABS scale was not completed. Going forward we are working with the Psychology team to provide ongoing education to any new staff joining the ward.

References
2. TRIUMPH Guidelines. 2015
Reducing the Number of Rejected Pathology Samples at North Bristol Trust
Laura Powell, Shuchita Soni & Francesca Knapper

Background

- Important pathology specimens were frequently being rejected by the lab
- Rejected tests delay diagnosis, and negatively impact on patient flow and antimicrobial stewardship
- There are also cost implications due to the requirement of additional resources and increased staff workload
- Our aim therefore was to reduce the number of rejected samples received at North Bristol Trust laboratory

Baseline Data

- 780 rejected pathology samples at North Bristol Trust over 6 months (March-Aug 2018)
- Samples included bronchoalveolar lavage, cerebrospinal fluid and ascitic fluid
- Most common reason for rejection was incorrect sample container (55% of rejected samples)

<table>
<thead>
<tr>
<th>Types of Sample</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urine</td>
<td>194</td>
</tr>
<tr>
<td>Faeces</td>
<td>110</td>
</tr>
<tr>
<td>Gynae</td>
<td>82</td>
</tr>
<tr>
<td>MRSA/MSSA/MRC screen</td>
<td>71</td>
</tr>
<tr>
<td>Throat Swab</td>
<td>60</td>
</tr>
<tr>
<td>Blood</td>
<td>39</td>
</tr>
<tr>
<td>CPE</td>
<td>32</td>
</tr>
</tbody>
</table>

- Survey of 31 ward staff asked to match the correct specimen container to the label – average score of 73%

PDSA 1

- Poster introduced initially to AMU, ICU and gastro ward
- Repeat survey of 33 ward staff – average score of 85% (from 73%)

PDSA 2

- Poster more widely distributed within the hospital and on multiple online resources
- Repeat survey of 24 ward staff – average score 86%

- Post-intervention there were 159 rejected samples over 5.7 weeks (14/1/19-22/2/19) = 28 per week (compared to 29 per week pre-intervention)
- Of note there was a reduction in the number of rejected samples due to wrong container from 16 to 13.5 per week
- Reduction in the number of rejected blood samples from 1.5 to 0.5 per week. The lab no longer received heparinised samples when clotted blood/serum was required (green topped bottle sent instead of gold) compared to 4.5 samples per week pre-intervention.

Conclusion

- The high number of rejected pathology specimens is partly due to a lack of staff knowledge of which containers to use. This is likely precipitated by poor communication around changes in protocol, and ambiguous request labels
- This project has improved staff knowledge of which specimen container to use
- There was a modest reduction in the number of rejected samples following our intervention. The post-intervention data was taken during winter, over a shorter time period, and may therefore underestimate the benefit of the intervention
- To take this project further we aim to make the sample request labels less ambiguous, develop an e-learning resource, and create an online link to the Severn Pathology Website that can be accessed on ICE when the sample is being requested (see figure below).
A highly functioning resus team has:

- Effective communication
- Excellent leadership
- Structure

**Resuscitation Council (UK)**

This recommends a team meeting that should take place at the beginning of each duty period. This is paramount in an environment where doctors are frequently rotating.

### What did we do?

- At Royal Cornwall Hospital NHS Trust
- Introduced a formal arrest team meeting:

  **When?**
  - Daily 9am and 9.15pm

**Time to “Meet and Greet”**

- Improve name and facial recognition
- Allocate roles
- Identify skills and gaps
- Reduce avoidable challenges

**Key secondary aims**

- Evaluating whether there is an improvement in the arrest team’s:
  - Awareness of skill level
  - Awareness of names
  - Awareness of roles

**STUDY**

- October 2017 Survey 2
- March 2016 Survey 3
- June 2017 Survey 4

### ACT

- **April 2018**
  - Daily register introduced
  - TBC...

- **July 2015**
  - “Meet and Greet” introduced
  - E-mail sent to hold holders

- **November 2015**
  - Meeting times changed

- **July 2017**
  - Pro forma location moved
  - Introduced at F1/F2 inductions

- **July 2016**
  - Reminder e-mail sent to bleep holders

### DO

- **May 2015**
  - Survey 1 (Baseline)

- **Survey 2**
  - March 2016

- **Survey 3**
  - June 2017 (Second Mid Point)

- **Survey 4**
  - October 2017 (Final)

**Future Ideas**

- Roll out into the simulation environment
- Introduce across all trusts in the South West Peninsula
- Use as an education tool to step up or take on new roles

**How are we doing so far?**

- Improved...

**Moving forward...**

1. Improving attendance
   - **How?**
     - Daily register from April 2018
     - Evaluating factors affecting attendance
     - Bleep reminder
     - Introduce at doctor’s induction

2. Analysing out of hours attendance
   - **How?**
     - Register at morning and evening meetings seven days a week

**References**

A quality improvement project to reduce lithium toxicity in a district general hospital
Dr Philippa Lilford (ST4 general adult and old age psychiatry trainee), Dr Katie Hall (CT3 psychiatry trainee), Dr Rosalind Ward (consultant old age psychiatrist)

Introduction

1. There were a significant number of lithium toxicities in the local hospital; over a three-month period 56% of lithium levels taken were ≥ to 1.0 mmol/L
2. There was confusion amongst junior doctors around when to take lithium levels.
3. The information on the electronic reporting system was incorrect, not highlighting high lithium levels and recommending levels were taken at the wrong time.

Methods

1. Teaching sessions were delivered to junior doctors.
2. The alert system and display message on the electronic reporting system was changed to highlight lithium levels ≥ 0.8 mmol/L and recommend levels should be taken 12 hours post dose.
3. A guideline on lithium prescribing and monitoring was written and uploaded onto the Trust intranet.

Results

1. We found a 57% improvement in junior doctor’s knowledge on when to take lithium levels
2. After our first two interventions we found a reduction in lithium toxicity by 23%.
3. After three interventions rates of lithium toxicity reduced by 46% (from 56% to 10%)

Discussion

Lithium toxicity is an important risk in general hospitals due to concurrent illness and interacting medication. We found a high rate of lithium toxicity in this local general hospital, which fell by 46% after our interventions. Lithium toxicity has a high mortality and this project therefore has been important in improving patient safety.
Improving the Weekend Handover in a small DGH

Dr. Emily Firmston-Williams and Dr. Sally Ko

Background

Whilst working as F1 doctors in a small DGH on medical cover we struggled with the quality of handovers for the weekend. The medical handover was in two parts: a poorly attended lunchtime meeting, and a vague proforma. This resulted in newly qualified junior doctors having to make difficult decisions which the day team would have been able to make much more easily due to their background knowledge of the patient.

Analysis

We looked at the two handover processes and their weaknesses when deciding how to improve the transfer of care.

Friday Handover Meetings

- Lack of attendance
- Problems with punctuality

Weekend Handover Proforma

- Lack of detail in request; including indications
- Poor description of action plan

On reflection we felt that changes to the proforma would have greater effects on the quality as it was a documented care plan, stayed with the junior, and was more likely to have a sustainable effect.

Target Statement

- To improve the quality of information shared
- Therefore improve patient safety over the weekend.

Implementation

Firstly we gathered data on the contents of the current handover. We found the vast majority to be the following:

1. Bloods request and review
2. Review for discharge
3. (Review for patient of concern)

We then looked at the level of detail documented for these requests, and scored them 1 to 5 for clarity of indication and plan/criteria.

From the inadequacies we found we created a more detailed proforma with more closed questions in order to prompt the teams completing them to be more specific about indication for bloods, plan following results, discharge criteria and Treatment escalation plans.

We then repeated the data collection to see if these prompts triggered a more complete handover.

Results

Overall we found that our new proforma with specific questions led to clearer, more detailed handover of patient situations.

We increased the percentage of handover sheets including an indication for the bloods from 74% to 100%, as well as increasing those with a plan following the blood results from 58% to 75%.

We also improved the handover of discharge plan and criteria to 100% and TTA completion to over half. Although we date collection is flawed as in our first round there were minimal patients for discharge review.

Our other limitations were as follows – Small sample size, time restrictions for completion of handover form, late MAU transfers (patient’s unknown to doctor), and change bias.

What next?

Move to a ‘virtual’ list on a central and secure G drive. Where consultants can also review the quality and quantity of handovers. Whilst also reducing waste, and improving patient confidentiality by preventing doctors carrying around patient sheets.

Another important aspect to whether we have improved the handover would be to study whether the quality of patient care has improved- did our proforma improve patient safety?
Hand-written Summaries for Parents and Specialist Teachers (Special Educational Need Coordinators-SENCOs) given at the end of a Community Outpatient Clinic, after Children with a Disability were assessed by a Paediatrician

Brooks J, Hussain S

Introduction
Timely and accurate communication in complex cases is essential. We are giving a brief, hand-written summary of the clinic consultation to parents, and a copy for parents to give to the SENCO, for reference until they receive the formal clinic letter. The purpose is to keep everyone up-to-date immediately after a clinic consultation, and to ensure coordinated patient care.

Methods:
We gathered feedback from parents and SENCOs about hand-written summaries given to 20 selected cases and report our findings.

Results:
79% of parents found that the summaries were helpful for future reference, record-keeping and sharing information with school. 75% reported giving the copy of the summary to SENCO/school staff, although only 55% of summaries were received by SENCOs. Out of them, 82% were found to be helpful by SENCOs for immediate planning and developing support for the students.

Conclusion:
With high numbers of outpatient visits, and potential delays in sending formal letters, short hand-written summaries of clinic consultations were found to be an effective and rapid way to communicate with parents and SENCOs. Time was saved by fewer enquires made to request clarifications.

Helpfulness Ratio (excluding NA*)

<table>
<thead>
<tr>
<th></th>
<th>Parents</th>
<th>SENCOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpful</td>
<td>79%</td>
<td>21%</td>
</tr>
<tr>
<td>Not Helpful</td>
<td>21%</td>
<td>79%</td>
</tr>
<tr>
<td>NA*</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Effective Receipt of Summaries

<table>
<thead>
<tr>
<th>Given to School or SENCOs by Parents</th>
<th>Received by SENCOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received by SENCOs/Not Given or Lost</td>
<td>Helpfulness</td>
</tr>
<tr>
<td></td>
<td>Parents</td>
</tr>
<tr>
<td></td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td>25%</td>
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<tr>
<td></td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>SENCOs</td>
</tr>
<tr>
<td></td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>65%</td>
</tr>
<tr>
<td></td>
<td>0%</td>
</tr>
</tbody>
</table>

Summary of findings:
- Parents: 79% found summaries helpful for future reference, record-keeping, and sharing information with school.
- SENCOs: 21% found summaries helpful for immediate planning and developing support for students.

Future Steps:
- To help improve the quality of patient care
- Sharing this practice and project details with colleagues
- Highlighting an option for parents to contact us, if the plan is not clear
- Ensuring that the plans are easily understood
- Finding a more secure way of delivering a copy of the summary to SENCOs
- Updating summary pro forma & re-audit in 12 months
- Keeping the hand-written summaries legible
- Sharing this practice and project details with colleagues

It comes with diagnosis and we can start working on Education, Health & Care Plan (SENCO)

It is good for record and understandably brief (Mother)

These summary letters are a bridge between clinic appointment and formal letters (SENCO)

I am happy that I had something in writing about diagnosis to show to school (Mother)
Abstract:
- The importance of protection from corneal exposure lies in the fact that bacteria and viruses can only penetrate the cornea once it is damaged.
- Sedated and ventilated patients on ITU are at a risk of complications associated with corneal exposure.
- The aim of this audit was to measure the current practices by the Intensive care team, in the recognition and management of patients with high risk of developing ophthalmic complications against recommendations present in the Royal College of Ophthalmologists and Intensive Care Society’s guidance on Eye Care in the Intensive Care Unit.

Introduction:
Ventilated and sedated patients are at higher risk of developing ophthalmic complication due to suboptimal blink reflex.

75% of patients who are sedated develop incomplete eyelid closure.

This exposes the cornea and causes dryness of the epithelium increasing the risk of exposure keratopathy and corneal ulcers.

Objectives:
- To determine whether patients that are intubated and sedated are highlighted as high risk for developing ophthalmic complications.
- To determine whether patients that are intubated and ventilated are prescribed protective measures.
- To determine if patients are receiving prescribed protective measures.

Standards:

**Standard 1:** Patients whom are sedated and ventilated should be highlighted as high risk for corneal injury, based on their corneal exposure grading. The set standard is 100%. Either a Doctor or a Nurse should document patient’s corneal exposure risk.

**Standard 2:** Patients highlighted as high risk for corneal injury i.e. Grades 1 and 2 should be prescribed protective measures: based on guidance published by RCOphth and ICS. The set standard is 100%. Doctors regardless of their grade are able to prescribe the necessary protective measures to ensure minimal corneal exposure.

**Standard 3:** Patients highlighted as high risk for corneal exposure whom were prescribed the necessary protective measures should be given by the protective measures by Nursing Staff. The set standard is a 100%. Following instructions from the medical staff, nurses should administer the aforementioned measures.

Methods:
**Population Sample:** this is a one-site audit conducted at a large NHS trust in the south west of England within the Intensive Care Unit.

**Inclusion Criteria:** Patients with pre-existing corneal pathology or ophthalmic problems.

**Exclusion Criteria:** Patients with pre-existing corneal pathology or ophthalmic problems.

**Data Collection:** Data collected via a questionnaire. Questionnaire graded the eyelid closure to three grades. Based on the grade the management of those patients will be measured against guidelines suggested in Eye Care in ICU guideline. Data obtained from patients’ notes on Innovian, and paper drug charts.

**Data Analysis:** The percentage of patients achieving the set standard and the number of patients meeting the guideline criteria is noted and then this is divided by the total cohort and multiplied by 100. This was done for the 3 standards.

Results:
- **First Standard:** 0% of patients achieved this standard.
- **Second Standard:** 0% of patients achieved this standard.
- **Third Standard:** 0% of patients achieved this standard.

Recommendations:
- The issue to be discussed in the safety brief that occurs in morning handover. The Nurse in charge will then make sure that nurses are aware of the risk.
- During Eye care round, nurses can be prompted to assess the grading of corneal exposure, and accordingly administer measures that will minimise risks.
- This can be facilitated by the introduction of stickers with pre-prescribed medication (in this case eye lubricant), which can be added onto to the drug chart and signed by the admitting doctor or ACCP.
- A PHNT specific guideline can be extracted from the Royal College of Ophthalmologists and Intensive Care Society’s guidance on Eye Care in ICU.
- Re-audit.

References:
- \(\text{Rev Lat Am Enfermagem} 2011 \text{Sep-Oct;19(5):1088-95.}\)

\(\text{Grade 0: Complete eyelid closure. Grade 1: Incomplete eyelid closure; any corneal exposure. Grade 2: Any Corneal exposure.}\)
Digital Safety Netting – Moving Forward Safely

Dr David Peberdy, Dr James Grant, and Dr Hugo Wigginton

AIM

To identify if reviewing radiology reports for patients discharged from A&E in a paper free way is as safe as the current paper based method. In addition there is a green motive in reducing the amount of unnecessary paper waste which builds on previous work in the same A&E department. To do this we identified the main steps in the current process.

1 – Imaging formally reported by radiologist and made available on PACS
2 – Administrative staff collate and print reports from last 24 hours and deliver to A&E
3 – Junior doctor reviews reports looking for discrepancies
4 – Discrepancies discussed with consultant and patients contacted if change to management required
5 – Paper reports scanned and uploaded to patient notes on Patient First and then disposed of confidentially

BACKGROUND

There is some evidence in the literature that reading from screen can be less effective than reading from paper. This has been demonstrated in proof reading studies which has translatable skills to that of report reviewing [1,2]. In addition there has been a push over the last 10 years to proof reading studies which has translatable skills to that of report reviewing [1,2].

METHODS

We looked at seven days worth of A&E attendances to compare if after attendance review of imaging (comparing radiologist report with impression at time of attendance) demonstrated a difference in the number of errors noticed when performing this on paper vs on screen.

1 – Imaging formally reported by radiologist and made available on PACS
2 – Administrative staff collate and print reports from last 24 hours and deliver to A&E
3 – Junior doctor reviews reports looking for discrepancies
4 – Discrepancies discussed with consultant and patients contacted if change to management required

RESULTS

No clinically significant events were missed in both paper and digital safety netting – This suggests that digital safety netting is as safe as the current paper based method.

Digital safety netting was able to identify false positives unlike the current paper based method – This has the potential benefit to reduce demand on fracture clinic slots by 5%.

The number of management changes based on radiology reports following A&E attendance appears low at around 2% during our selected 7 day period.

There was a predictable decrease in paper waste – Although this was not significant (p=0.1)

This audit demonstrates that a system change in reviewing radiology reports from the current paper based method to a digitalised version is safe and may have both foreseen and unforeseen positive externalities.

FURTHER WORK

There are some limitations to the scope of this audit, in particular measuring the time taken to complete the review process and to see if our methodology holds true for microbiology, and biochemistry and haematology reports. In addition if this is applicable in settings outside of A&E.

REFERENCES


For additional information please contact: Dr David Peberdy
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David.Peberdy@nhs.net

Dr David Peberdy, Dr James Grant, and Dr Hugo Wigginton
"I've got a little list"

The Scourge of a Surgical Junior

A Quality Improvement Project designed and implemented by Dr Hiba Khan, Dr Alexander Harding, Dr Elizabeth Flesher, Dr Benjamin Pearson, Dr James Marshman, Dr Gemma Clark, Dr Samuel Lawday, Mr Rob Bethune

Introduction

- Junior doctors were spending hours working on patient lists with Excel.
- Human error, safety concerns and increased junior doctor workload were the main issues

Aim: To reduce the amount of time surgical juniors spend on the list by 50%.

Methodology

Junior doctors measured the time they spent on the list during surgical on-call and night on-call shifts.

Intervention

- IT adapted pre-existing software to automate the list creation
- Software was trialed with strong feedback mechanisms
- Junior Doctors were educated about the new lists (Poster below)

The NEW Surgical List

How to use it

1. Log in to Doctors’ Taskboard
2. Locate patient by patient identifier e.g. hospital number
3. Click on “Place on Surgical List” (Right)
4. Click on the “Take list” option

How to locate it

5. Click on the “Surgical List” option on the filter section (Top left) and enter the on-call date (Top right)
6. Click on “specific view” then “Apply”

What can one Junior Doctor do with an extra 2 hours?

- Run a half marathon
- 15 cannulations
- Clerk 4 patients
- 2.5 hernia repairs
- Watch 2/3rds of Avengers Endgame
- Watch England lose to Germany on penalties in the World Cup

Results

Day on-call: 121 minutes before to 7.7 minutes after (Reduction of 96.15%)

Night on-call: 91 minutes before to 7.38 minutes after (Reduced by 91.89%)

Conclusion

- Our intervention has significantly reduced the amount of time junior doctors spend on the on-call surgical lists.
- All surgical specialties have started using the new list
- Our list has been designed to prevent the errors highlighted as an issue with the original list
**IMPORTANT ANNOUNCEMENT:**
Ladies and Gentleman, welcome on board. This is your captain. I hope you enjoy the flight with us. I would like to reassure you I am the best pilot in world, however I would like to confess here that I have never been in a plane of this type and do not know the controls. There is nothing to worry as this is a fully automated state of art plane………

**HOW DOES IT FEEL? WOULD YOU LIKE TO FLY WITH THAT PILOT?**

**NOW WILL YOU TAKE THIS RISK WITH A DOCTOR?**

**INTRODUCTION**
A district hospital relies heavily upon locum doctors. They are poorly inducted at last minute to provide emergency care especially at night. This lack of the knowledge of system poses significant risk of missing useful information and putting patients at risk. We developed a step by step guide to all the useful links for patient related information, thus eliminating risk of missing vital information for patient care.

**TASKS**
Improve patient safety by easy access to their records, reduces errors, reduces induction time (this save time for inducting person as they don't have to cancel their clinics), quick independent start for locums.

**ACTIONS**
Written down and formulated step by step guidance for locums e.g. for Pathology, radiology, endoscopy, theater records, clinic letters, discharge summaries etc.. The contacts and relevant protocols locums need to follow. Now this will be going on hospital website as dummy practice sessions for locums to practice prior to their shift start within trust.

**RESULTS**
This projected in urology had brilliant outcomes. There is less frustration for locums, they manage patients confidently, don't have to keep asking other staff for help avoiding mistakes in patients management with precious time savings. This is rolled out to other specialties. Even allied health professionals in wards and theaters are keen to induct their bank staff in similar fashion. This will be made available on our hospital webpage so that locums will come prepare to hospital prior to their shift.

**RELEVANCE TO QUALITY IMPROVEMENT**
Without Access to patients records Healthcare team workers are blinded to the vital information thus increasing risk to patients and in order to minimize that risk they constantly keep seeking help from other co workers. This not only affect their work but for the whole team and thus put pressure on time and resources. Its patient's fundamental right to be treated in a safe environment by physicians who have the knowledge plus means to apply it with proper care access.

**COST SAVING**
The real time saving includes Locums time, inducting doctors time, avoiding cancellations of other direct clinic activities and co workers time. This helps to speed up patient's treatment and means more patients are treated within same amount of time and more effectively.

**Confused doctor = Dangerous doctor**

**Trained Doctor = Confident Doctor**

**Confident Doctor = Safe Doctor**

Safe Doctors save lives
WHO Checklists - The Writing’s on the Wall

Tom Knight, Claire Cushley, Helen Murray, Lawrence Kidd
Anaesthetic Department, Gloucestershire Hospitals NHS Foundation Trust

Introduction
The World Health Organisation (WHO) Surgical Safety Checklist, introduced in 2008, has been shown to improve patient safety, as well as improving teamwork and communication in theatres. However, the ability to bring about these improvements appears to be related to the style of implementation used, and the engagement of clinical teams, rather than the introduction per se. Currently, there is no standardised way the checklist is performed, and in Gloucester Royal Hospital and Cheltenham General Hospital, a paper checklist was used (see below).

Review of current practice
In April 2018, a survey of 110 theatre staff and an audit was carried out.

Aim
To improve compliance and engagement with the WHO Surgical Safety Checklist.

To achieve this the following was proposed:
- Move from a paper checklist to a wall-mounted checklist
- Refine the points included
- Change the timing of ‘time out’ to immediately prior to knife-to-skin

The wall-mounted checklist was designed, and trialled in one of the general theatres in Gloucester Royal Hospital in September 2018.

Results
In September 2018 the new checklist was re-audited. Data was collected over a 5-day period. 17 ‘sign ins’, ‘time outs’, and ‘sign outs’ were captured.

Findings
- The new process was well received
- All points on the checklist were discussed between 80-100% of the time
- Full attention by the entire theatre team was achieved 100% of the time, compared to an average of 58% of the time with the paper checklist (see right)

Figure 1. Paper WHO Surgical Safety Checklist used in Gloucester and Cheltenham hospitals

Figure 2. Wall-Mounted WHO Surgical Safety Checklist

Figure 3. Bar chart showing attention during ‘time out’ by the theatre team with the paper and wall-mounted checklist

Figure 4. Checklists in theatre and staff filming online video

References
Optimising Admission Temperatures of Preterm Infants to the Neonatal Intensive Care Unit.
Dr Jayne Sage, Dr Claire Rose, Dr Rebekka Jones, Southmead Neonatal Unit

Background
Preterm infants are highly susceptible to heat loss following delivery. The aim is to maintain an infant’s temperature between 36.5°C and 37.5°C. This is measured on admission to the neonatal intensive care unit (NICU). Temperature outside of this range is associated with an increased risk of morbidity and mortality.

Project Intervention
In our unit, the previous standard of care was to use a food grade plastic bag for infants born at less than 32 weeks gestation alongside an overhead heat source.

In September 2016 we introduced the use of a double-layer polyethylene suit during stabilisation. This reduced the percentage of infants with a low admission temperature. There was however an increase in the number of infants with a high temperature.

To further improve control we introduced the use of continuous skin temperature monitoring during stabilisation. This allowed for adjustment of the overhead heat source to optimise temperature.

Implementing Change
Saturation monitoring is routinely performed during stabilisation of preterm infants. There was minimal cost to the unit to purchase additional leads. Education time was used to provide training to staff through simulation of the set up and information was shared during daily safety briefings.

Results
The use of a double-layer polyethylene suit was effective at raising the admission temperature of preterm infants. Although this reduced the risk of hypothermia, it increased the risk of hyperthermia in our clinical setting. Admission temperature can be further optimised through skin temperature monitoring at delivery allowing the intensity of any external heat source to be adjusted.

Supporting Ongoing Change
Data will continue to be collected to ensure sustained change. A poster containing trouble shooting points on managing infants with a temperature outside the target range has been produced to further optimise temperature management.
INTRODUCTION

One wise man once said:

A customer is the most important visitor on our premises. He is not dependent on us. We are dependent on him. He is not an interruption of our work. He is the purpose of it. He is not an outsider of our business. He is part of it. We are not doing him a favour by serving him. He is doing us a favour by giving us the opportunity to do so."

What a beautiful quite and key to success for every business. Unfortunately NHS needs to learn a lot as first thing that comes to mind with NHS are long waits.

Question here is: Are these Delays unavoidable?

TASKS

Fast track patient treatment by easy access to senior specialist clinic, reduce duplication of work, making a safe and proper management plan at a very early stage by setting up a specialist clinic.

We identified one area of problem which was urinary retention where people in most part of country have to wait for long times to get a definite and more importantly properly explained treatment. Normally they attend a clinic set up by Nurses where catheters are removed and whether they pass or fail the trial they wait for a consultant assessment which is usually due after a few months. Sometimes again after starting on pharmacotherapy they are referred back to same nurses clinic to have another trial and then decide again in consultant led clinic to see if they any other form of treatment.

ACTIONS AND METHODS:

We started by writing down a simple six question algorithm (this include the pledge to start on pharmacotherapy if no contraindication) for the teams (GP, A&E, Other departments within trust) who would like to book patients directly to a specialist Trial without catheter (TWOC) clinic where the patients are assessed by a senior urology doctor who not only assess them for Urinary symptoms, possibility of prostate cancer but also discuss future plans with the patient and family whether they Pass or fail their Trial and request specific treatment straightaway.

RESULTS

This project in urology had brilliant outcomes. There is less frustration for patients, they are managed at a comfortable pace, don’t have to keep waiting for lengthy period of times for a proper and final treatment with precious time savings. This is now planed to roll out to other specialties and even within urology for other medical problems.

In simple terms it was a success.

This was appreciated in GIRFT assessment (getting it right first time) and our small District Hospital was ranked at number 8th in United Kingdom

RELEVANCE TO QUALITY IMPROVEMENT

Without early treatment patients suffer from increase risk of

1) Physical problems like infections, bleeding and pain.
2) Psychological trauma leading to frustration, anger and lack of faith on their service provider.
3) This not only affect their work but can also financially squeeze them to the limits and put pressure on their resources.

Its patient’s fundamental right to be treated in a safe environment by physicians and it is our duty to provide them the treatment at a pace and speed they duly deserve in a safe manner

COST SAVING

The real time saving includes consultants and other allied medical professionals time as there are no repeated visits of patients, avoiding overcrowding of clinics and allocating slots to patients with other conditions. This helps to speed up patient’s treatment and means more patients are treated within same amount of time and more effectively.

Another important factor is that patients do not have to have catheters for long time and hence less visits by District Nurses saving their time in community, less budget to be spent on catheters plus the very important benefit of avoiding infections (as we all know increase catheter time is directly related to complications including infection and sepsis) and less burden on health services.