Salisbury NHS Foundation Trust

Patient Safety Newsletter

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In this newsletter

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HOSPITALS ARE NOT THE SAFE PLACES WE WOULD LIKE THEM TO BE.

A focus on reducing harm in surgical and perioperative care

Hospitals are not the safe places we would like them to be. Estimates of the proportion of patients harmed by hospital care range from 3% to over 15%[1-3] and almost two thirds of in-hospital events are associated with surgical care[4]. Interventions to increase patient safety in theatres and surgery in general have therefore been proposed and implemented including regionalisation for certain operations[4,5], establishing training programs for laparoscopic surgery,[6] improving the quality of teamwork in the operating room,[7] implementing patient safety bundles to reduce surgical site infections[8]. Last but not least, a number of surgical checklists have been developed and evaluated[9] including the WHO surgical checklist which is now part of routine practice.

A certain level of error is inevitable because surgical services are delivered by humans working in complex systems. However, there are many things that we can do to mitigate risk in our surgical environments and to make sure errors do not have consequences for patients. This is why one of our patient safety workstreams focuses on reducing harm in surgery and perioperative care.

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Welcome

Welcome to the latest edition of our patient Safety Newsletter.

This time we have a focus on surgical safety which is one of our priority areas of work as it is such a known area of risk. However please carry on reading even if you don't work in surgery directly as there is still a lot to learn and perhaps think about within your own team/speciality.

You will see that our teams have been very active in recognising and reducing surgical risk. Interventions you will read about include :

- Adoption of checklists and briefings to enhance teamwork and safety critical communication
- Implementation of a care bundle approach to reduce one of the known complications of surgery – surgical site infection
- Human factors training – which our theatre teams are now attending.

I also have to mention the great work carried out as part of the National Emergency Laparotomy audit, SFT has been recognised as the 'most improved' in this round. Congratulations to Dr Maq Jaffer and the team!

Lorna Wilkinson

Director of Nursing and Executive Lead for Patient Safety

Our Patient Safety Priorities

Our aim is to reduce avoidable harm by 50% and to reduce our HSMR further by 10% by 2018; this will be achieved through the following workstreams:

Workstream 1 – Reducing Harm in Frailty

Falls, pressure ulcers and catheter associated urinary tract infections (CAUTIs).

Workstream 2 – Deteriorating Patient

Sepsis, acute kidney injury.

Workstream 3 – Perioperative Safety

The use of safety checks and briefings, surgical site infection bundle.

Workstream 4 – Maternity Safety

Reducing still births and intrauterine deaths through improved recognition of growth issues in the unborn.

We present quarterly safety reports to our Commissioners. All past reports can be found on the Intranet. (Click on Quality and Customer Care).

Safe Surgery

Why safe surgery is important

Surgical care has been an essential component of health care worldwide for over a century. As the incidences of traumatic injuries, cancers and cardiovascular disease continue to rise, the impact of surgical intervention on public health systems will continue to grow.

Surgery is often the only therapy that can alleviate disabilities and reduce the risk of death from common conditions. Every year, many millions of people undergo surgical treatment, and surgical interventions account for an estimated 13% of the world's total disability-adjusted life years (DALYs).

While surgical procedures are intended to save lives, unsafe surgical care can cause substantial harm. Given the ubiquity of surgery, this has significant implications:

- the reported crude mortality rate after major surgery is 0.5-5%;
- complications after inpatient operations occur in up to 25% of patients;
- in industrialised countries, nearly half of all adverse events in hospitalised patients are related to surgical care;
- at least half of the cases in which surgery led to harm are considered preventable;
- mortality from general anaesthesia alone is reported to be as high as 1:150 in some parts of the world.

WHO and surgical safety

WHO has undertaken a number of global and regional initiatives to address surgical safety.

Much of this work has stemmed from the WHO 2nd Global Patient Safety Challenge "Safe Surgery Saves Lives". This aims to improve the safety of surgical care around the world by defining a core set of safety standards that could be applied in all WHO Member States.

What are we doing here?

In June 2015 we audited our practices surrounding our Team Brief and WHO Safety Checklist. Our findings revealed that different teams were doing things differently and practice was not uniform when completing the Team Brief and the separate components of the WHO safety checklist.

We also noted that the Theatreman electronic record did not match the process or gave realistic timings which therefore provided inaccurate data. The decision was made to switch Theatreman off ensuring there was only one stream of accurate data.

The decision was made to relaunch the WHO Safety Checklist and Team Brief in both Main Theatres and Day Surgery Unit and a working party was set up. After consultation with all staff groups a new template was developed and printed for relaunch.

Getting started August 2015

The templates were put in all operating rooms with the staff having early access to gain confidence in using the document when we finally went live.

The new templates were generally embraced by all staff and any non-compliance was reported through direct feedback

to the individuals concerned. Support was provided by all clinical directors.

An audit tool was also developed to measure our improvement. Audits were completed every day for each operating session for the first 4 months. The data very quickly demonstrated that most areas were compliant. However failures were noted regarding sign-off by the surgeon. With the surgeon scrubbed when the document was being completed they were unable to sign their relevant section.

The working party reviewed the data and the template was revised and amended with each sections having "signed on behalf of" added. This enabled the data to demonstrate a more accurate record of what was actually happening.

The audit team were involved and developed spreadsheet for us to analyse the data.

Monitoring - review September 2016

Following feedback and discussions with the multiprofessional theatre team, a decision was made to review the templates. A new working party was formed and the templates were reviewed and amended. The aim was to make the document more user-friendly and provide only relevant patient safety information.

The revised documentation was relaunched giving staff one month to adjust and become compliant with the new form. The audit tool was amended so it matched the new template.

Compliance was audited weekly at first but when we could demonstrate that the new templates were being used as planned, audit became monthly. Reports were made to the Safety Steering Group quarterly.

The compliance is good and runs at around 100%. Any non-compliance is predominately due to missing data when staff fail to complete the audit documentation.

To remove this obstacle a new process was developed. On the first Monday of each month the administration team distribute the audit tool directly to each room during the Theatre Board Meeting and any documents not returned are followed up with the people concerned.

Another issue that was identified was staff failed to complete all sections of the audit form, this was common in long cases where surgery was over 6 hours. During observations in practice it was noted that it was not the case that the interventions had not taken place, but that staff had failed to complete the audit paperwork at the end of the procedure. If this happens now, the audit form is given to the Lead for that theatre room who completes the paperwork.

Development and Ratification of the Team Brief and WHO Surgical Checklist

Following the visit from the CQC 2015 one of their recommendations was that we wrote a Team Brief and WHO Checklist trust policy. This work has been completed and the policy was finally ratified in May 2017. From the original policy further work was undertaken using this document as a foundation for the trust's first Local Safety Standards for Invasive Procedures (LocSSIP) template.

LocSSIPs

Whilst the introduction of the WHO Safer Surgery Checklist was a great step forward in the delivery of safer care for patients undergoing operations, experience suggests that the checklist approach can be extended beyond surgery to all invasive procedures performed in hospitals. Our Theatre Policy provides the framework for other areas within the hospital that undertake invasive procedures to write their LocSSIPs

The development of LocSSIPs in itself cannot guarantee the safety of patients. Surgical teams should undergo regular, multidisciplinary training that promotes teamwork and includes clinical human factors considerations. This is currently happening in Salisbury. For more information or to get involved please speak to the Clinical Risk Team.

Liz Pickering
Clinical Lead - Scrub
Bleep 2048 / Ext 4470

Changing Behaviour with a Human Factors Approach

The Francis Report[1] identified multiple problems relating to the safety culture of Stafford hospital in the period 2005-2009, as well as serious failings in the supervisory and regulatory systems of the NHS. Particular criticism was directed at the Trust Board and clinical professionals for the culture that developed, notably organisational silence[2], cultural censorship[3], consensual neglect[4] and compassion fatigue[5]; conditions that conspired and failed to safeguard patients. Tolerance of the unacceptable simply became the 'way we do things around here'[6]. In response to the findings, one of several commitments made by NHS England was the establishment of the Patient Safety Collaboratives. Mid Staffordshire was not an isolated case and sub optimal care and poor professional standards could have been found elsewhere in the NHS at that time as could they be found today. Our collective challenge concerns the scale of variation in the NHS in terms of patient quality and clinical outcome and the pervasive and insidious acceptance of the unacceptable.

In terms of Surgical Safety (as one example) we know that routine violation migration of essential standards of swab, needle and instrument control, poor communication and teamwork, failure to engage in pre list safety briefings, use of the World Health Organisation (WHO) surgical safety checklist and essential safeguards of read back techniques in situations of laterality contributes to the incidence of surgical never events[7]. With regard to Sepsis care - too few staff apply the care bundle, we also know that further attention needs to be paid to mitigate avoidable harm with regard to falls, pressure care, Ventilator Acquired Pneumonia (VAP) and the list goes on.

To the detriment of patient care and public confidence, safety culture in healthcare is too often noted when lacking, rather than celebrated and embraced as an enduring value, prioritised by all staff - Board to ward. If the NHS aspires to high reliability, then building and sustaining a safety culture is an essential part of that endeavour and Patient Safety Collaboratives are contributing. In a safe culture, system leaders are sensitive to the unintended consequences of policy, and staff at every level share responsibility for safety; acting to preserve, enhance and communicate safety concerns; striving to actively learn, adapt and modify behaviour that enhances both patient and worker safety[8].

Improvement starts by examining current behaviour patterns and identifying what needs to change. The airline industry did so 30 years ago, following a series of accidents that could not be attributed to technical failures, or deficiencies in technical skill. It was recognised that certain behaviours were required on the flight deck, to preserve safety. These related to decision making, situation awareness, communication, teamwork and leadership[9]: Behaviours that are equally essential to keeping patients safe[10].

There are three lessons from the aviation example that are relevant today as we strive to deliver safe care in a financially challenged system. The first is the need to fully analyse accidents to include an examination of 'human factors issues' – especially workplace behaviours. Second is the importance of linking the findings from these analyses to ongoing training of the behaviours that constitute the non-technical skills in healthcare. Finally, there is need to appreciate that humans will always be prone to fail in systems that have not been designed using ergonomics/ human factors principles.

Building an appreciation of human factors and ergonomics is a key focus of many of the 15 Patient Safety Collaboratives, including Wessex, as they strive to build capacity and capability in the service. In 290 Francis recommendations, there was no explicit mention of human factors as a 'science', but it is certainly an interventional approach that is recognised by Sign up to Safety (the national campaign for safety improvement) and the Patient Safety Collaboratives as essential, if the cases of diseased safety culture within the NHS are to be treated.

Individuals in receipt of care, deserve a safe experience, free of avoidable harm. Whilst much is focussed on research, advance and technical innovation, for the sake of our patients we need to pay greater

attention to the frailties of the human condition, the toxicity of negative behaviours and the design of safer clinical systems, if we are to realise safer care.

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Professor Jane Reid

Clinical Lead

Wessex Patient Safety Collaborative

NED Salisbury NHS Foundation Trust

Safe Surgery - preventing surgical site infections

Surgical site infection (SSI) is a type of healthcare-associated infection (HCAI) in which a wound infection occurs after a surgical procedure. Other types of healthcare-associated infections that can affect surgical patients are postoperative respiratory and urinary tract infections, bacteraemias (including MRSA infections and cannula infections) and antibiotic-related diarrhoeas (particularly Clostridium difficile enteritis). In a recent national prevalence survey, SSIs were the third most common type of HCAI after pneumonia and urinary tract infections, accounting for just over 15% of all infections[1]. At least 5% of patients undergoing a surgical procedure develop a surgical site infection[2].

A surgical site infection may range from a simple wound discharge within 7–10 days of an operation to a life-threatening postoperative complication.

Most surgical site infections are caused by contamination of an incision with micro-organisms from the patient's own body during surgery. Infection caused by micro-organisms from an outside source after surgery is less common.

Surgical site infections can have a significant effect on quality of life for the patient. They are associated with considerable morbidity and extended length of hospital stay. In addition, surgical site infections result in a considerable financial burden to the NHS. Conservative estimates suggest that total cost of treating SSIs is £57 million.

SSI risk increases when the patient:

- is immuno-compromised (by drugs or disease)
- has a pre-existing site of infection,
- is malnourished or obese
- has an ASA score of > 3
- has a body temperature of <36°C during surgery.

The risk of SSI is also associated with longer than normal operation times, the surgical procedures, long pre-operation stays, the age of the patient and smoking.

The position of the surgical site is a key factor, as it determines the number of micro-organisms that are present and available to establish infection. The risk of SSI is therefore much greater for procedures on the intestines - which are already heavily colonised with bacteria, than those performed on bone.

"The point is that being able to demonstrate 'due diligence' is not about having a thing (a policy or a system or a heap of procedures and checklists) it is about doing a thing"

Max Geyer

While it may be difficult to reduce patients' intrinsic risk of SSI, there is much that can be done in the theatre environment to reduce the risk. This includes:

- Removing micro-organisms that normally colonise the skin before making the incision;
- Preventing the introduction and multiplication of micro-organisms at the surgical site;
- Enhancing patients' defences against infection;

In SFT the team have been actively working to improve patient safety in the theatre environment for many years. The following describes what we are doing towards reducing surgical site infections.

Peri-operative warming[2]

Hypothermia is an important adverse effect of anaesthesia caused by vasodilation and reduced thermoregulation. Evidence suggests that inadvertently reducing the body temperature to <36˚C during operations is associated with increased intraoperative blood loss, morbid cardiac events and SSI (NICE, 2008). Maintaining a normal temperature during surgery is, therefore, recommended and patients undergoing surgery lasting longer than 30 minutes should be actively warmed.

Jenny Evans (whilst working in Procurement) has been undertaking an audit to establish baseline data for the Trust and to benchmark against NICE guidelines.

This audit is currently in progress and an action plan will be developed when we

have collated the data. The patients have their temperature checked initially upon admission to SAL and their temperatures are checked again in the anaesthetic room, theatres and within recovery.

Blood glucose control

BMs between 4 – 12 mmols (Known diabetics)
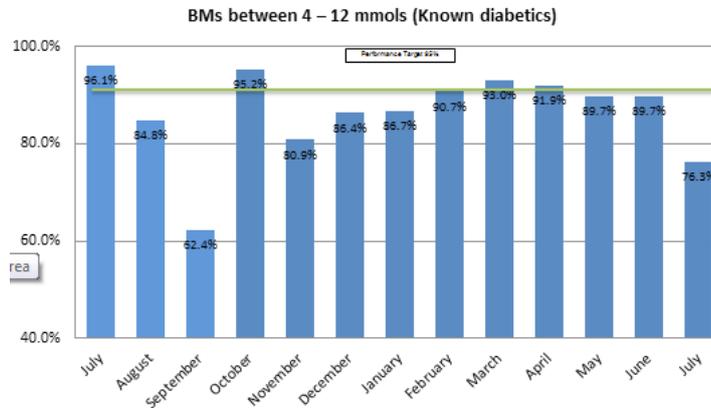
Current SSI prevention guidelines suggest that a glucose level of <11 mmol/L should be maintained in diabetic patients (this tight blood glucose control is not yet considered relevant in non-diabetic patients)[4]

With this in mind as a department we are going to review the pre-admission information and provision of updated leaflets as the initial contact and pre-operative preparation. Fasting times for diabetic patients needs to be revisited and the management of patients who are clinically sick as this will affect the BM reading.

References:
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Antibiotics

Currently we are reviewing the way that we collect the data on antibiotics and their timely administration during surgery. From the chart below you can see that we are running at around 90%. However this is not the impression we are getting from our WHO checklist audit (which puts it much higher). This work is ongoing.

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Antibiotics given (within 60 mins of skin incision)

Learning from Incidents ....Theatres

Management of specimens

There have been several incidents recently that have involved specimens and resulted in them either being lost or following an incorrect pathway—both have potentially detrimental impact on patient treatment plans

A Standard Operating Procedure (SOP) has been written to guide staff and includes flow charts for the management of different types of specimen.

Flow charts include details booking, team brief and further preparation with planning that may be required for specific procedures i.e. sentinel node biopsy processing.

Additionally there is a guide for ODO's to ensure the safe delivery of specimens and any particular agreements in place i.e. sentinel biopsies will be collected from the theatre, by the laboratory staff, for processing

Issues have been identified with the labelling of specimens

Theatres MUST be cleansed thoroughly between patients including ensuring that any patient information from the previous case is removed.

Do not have other patient notes in theatre at any time

Please remind yourselves of the processes that are in place with regards to checking patient ID, including the labelling of specimen pots.

Circulating nurses and Scrub Practitioners have a particular role to play, with accurate cross reference checks to all patient identification labelling.

PPE and Lead Aprons

There is work ongoing to re-evaluate the requirements of lead aprons within theatres to assess:

- The level of exposure and associated risks

- How risk can be minimised from staff wearing inappropriate heavy aprons

- What action is needed to ensure the correct number and sizes of apron are available at the point needed to stop staff wearing them when not required to do so.

- Introduction of a SOP on the wearing of PPE for radiological procedures.

More information will follow as known.

Sterile Services

There have been positive changes seen since the move to the joint venture with SSL such as less holes in drapes, availability of trays and a fast turnaround so trays are available when asked for. This has resulted in a reduction of cancellations on the day and a knock on positive impact for staff.

However, it was recognised that during late July/August there have been an increase in the number of holes in drapes. Please remember:

THESE MUST BE REPORTED

Work is ongoing with SSL to minimise and standardise the way in which trays are transported, stored and managed within operating theatres

Every effort must be taken to ensure Trays are NOT of stacked on top of each other at any time

Library Update

Surgical specimen handover from the operating theatre to laboratory - can we improve patient safety by learning from aviation and other high-risk organisations?

Brennan, Peter A; Brands, Marieke T; Caldwell, Lucy; Fonseca, Felipe Paiva; Turley, Nic; Foley, Susie; Rahimi, Siavash

Source: Journal of Oral Pathology & Medicine : official publication of the International Association of Oral Pathologists and the American Academy of Oral Pathology; Jul 2017

Available in full text at Journal of Oral Pathology and Medicine - from John Wiley and Sons

Essential communication between healthcare staff is considered one of the key requirements for both safety and quality care when patients are handed over from one clinical area to other. This is particularly important in environments such as the operating theatre and intensive care where mistakes can be devastating. Healthcare has learned from other high-risk organisations (HRO) such aviation where the use of checklists and human factors awareness has virtually eliminated human error and mistakes. To our knowledge, little has been published around ways to improve pathology specimen handover following surgery, with pathology request forms often conveying the bare minimum of information to assist the laboratory staff. Furthermore, the request form might not warn staff about potential hazards. In this article, we provide a brief summary of the factors involved in human error and introduce a novel checklist that can be readily completed at the same time as the routine pathology request form. This additional measure enhances safety, can help to reduce processing and mislabelling errors and provides essential information in a structured way assisting both laboratory staff and pathologists when handling head and neck surgical specimens.

Preoperative Site Marking: Are We Adhering to Good Surgical Practice?

Bathla, Sonia; Chadwick, Michael; Nevins, Edward J; Seward, Joanna

Source: Journal of Patient Safety; Jun 2017

Objectives

Wrong-site surgery is a never event and a serious, preventable patient safety incident. Within the United Kingdom, national guidance has been issued to minimize the risk of such events. The mandate includes preoperative marking of all surgical patients. This study aimed to quantify regional variation in practice within general surgery and opinions of the surgeons, to help guide the formulation and implementation of a regional general surgery preoperative marking protocol.

Methods

A SurveyMonkey questionnaire was designed and distributed to 120 surgeons within the Mersey region, United Kingdom. This included all surgical trainees in Mersey (47 registrars, 56 core trainees), 15 consultants, and 2 surgical care practitioners. This sought to ascertain their routine practice and how they would choose to mark for 12 index procedures in general surgery, if mandated to do so.

Results

A total of 72 responses (60%) were obtained to the SurveyMonkey questionnaire. Only 26 (36.1%) said that they routinely marked all of their patients preoperatively. The operating surgeon marked the patient in 69% of responses, with the remainder delegating this task. Markings were visible after draping in only 55.6% of marked cases.

Conclusions

Based on our findings, surgeons may not be adhering to "Good Surgical Practice"; practice is widely variable and surgeons are largely opposed and resistant to marking patients unless laterality is involved. We suggest that all surgeons need to be actively engaged in the design of local marking protocols to gain support, change practice, and reduce errors.

The Healthcare Library has launched an electronic form for literature search requests.

The link to the form is here

Please do use this form; it should make life much easier for you when making requests for literature searches.

If you have any problems with the form or any ideas for how it could be improved, please email library.office@salisbury.nhs.uk