Patient Safety – A Moving Target

René Amalberti, a leading safety academic, highlighted why patient safety is a ‘constantly moving target’\(^1\) at the Patient Safety Congress in Manchester this month.

Improving standards and growing awareness of patient safety means that a larger number of clinical events will be considered patient safety issues, and our threshold for accepting harm is falling.

Rapid evolution of healthcare results in more complex systems and environments. Healthcare is actually made up of many industries, some of which are becoming highly standardized such as pharmacy and blood transfusion, while others are more chaotic.

Improvements in care outcomes means that people are surviving to older age, current projections suggesting that by 2030 as many as 25% of people may be surviving into their 90s. Our patients will have increasing comorbidities and present more complex care needs leading to increased risk.

“The combination of austerity, rising healthcare costs, rising standards and increased demand will place huge pressures on healthcare systems which will increase the likelihood of serious breakdowns in care\(^2\).”

To date patient safety developments have been driven by activities in other high risk industries, such as airline and nuclear, often by non-medical professionals such as engineers and psychologists. We have significant challenges to overcome if we want to ensure that the care we offer is safe and as harm free as possible. More of this work needs to be led by frontline clinicians with better skills in safety, quality improvement and human factors.

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References

Pharmacy

Beware of high strength insulin

The usual strength of insulin is 100 units/ml but recently high strength versions of insulin are available which contain 200, 300 and even 500 units per ml. This can cause confusion and there is the potential for overdose.

Recently a patient was admitted taking Toujeo (300 units/ml glargine insulin pre-filled pen) 72 units at night and Humalog (200 units/ml prefilled pen) 36 units three times daily. Insulins in the usual strength were not available so pharmacy supplied the 100 unit per ml pens. The prescriber thought they had to change the prescription and mistakenly doubled the dose of the Humalog and tripled the dose of the glargine on the insulin chart, leading to an insulin overdose. The patient received 2 doses of Humalog and had low blood sugars. Fortunately, they did not receive the high glargine dose due to their blood sugar still being low and the prescription being confusing.

Remember – insulin is prescribed and administered in units. The strength of insulin related to the volume of the injection the patient receives, NOT the dose.

An NHS Improvement alert about the risks of withdrawing insulin from pens /cartridges has been issued and can be read using the following link; https://improvement.nhs.uk/news-alerts/risk-severe-harm-and-death-withdrawing-insulin-pen-devices/

Insulin must never be withdrawn from a pen/cartridge because of the following risks;

- Incorrect dosing
- Air entering into the pen/cartridge damaging the device
- Unlicensed route of administration.

If a patient is admitted on insulin, best practice is for them to continue to administer this themselves after confirming the dose with the nursing staff. If they are unable to administer from a pen/cartridge nurses can administer from a vial. If insulin is not available as a vial nurses can administer from pens.

For more information contact the Diabetes Specialist Nurses on 772 6091 or your ward pharmacist.

Verbal Messages

A patient was diagnosed with C Difficle infection and the on call microbiologist recommended Fidaxomicin. The prescriber was unfamiliar with this antibiotic and misheard this as Daptomycin, which had previously been prescribed for this patient. The error was detected before the patient received a dose of antibiotic but there was the potential to receive the incorrect treatment.

Remember - If taking advice over the phone repeat back what has been said, checking spelling if appropriate. Ensure you are aware of the indication of what you are prescribing, even if the advice has been given by a Consultant.

Anticoagulant counselling

An incident occurred at a different Trust where a patient suffered a fatal GI bleed following recent initiation of Apixaban. The patient was not counselled on the Direct Oral Anticoagulant (DOAC) and the family were not given any information (the patient being investigated for memory loss). When the patient developed hematemesis the family did not appreciate the significance of the Apixaban. The coroner recommended the trust review it’s process for counselling patients on anticoagulants. Within our Trust pharmacy we attempt to counsel all patients newly started on anticoagulants before discharge but this is not always possible, especially at weekends.

Remember - If starting a patient on any anticoagulant please ensure they are aware of the risk and document the discussion in the medical notes

Further information about Anticoagulant counselling can be found on StaffRoom: http://staffroom.ydh.yha.com/policies-and-procedures/clinical/vte-files-to-be-linked/doac-counselling-checklist

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The IGNAZ App – for junior doctors

The IGNAZ smartphone app has been developed within the Trust to provide junior doctors with access to the latest key clinical information from Staff Room in an easy and simple way.

The app is available to download on Staff Room: http://staffroom.ydh.yha.com/Learning-Development-and-Professional-Registration/postgraduate-education/the-ignaz-app-for-junior-doctors

or if you would like to suggest any clinical content please contact Jocelyn.matthews@york.nhs.uk
Peripheral Insertion of Vascular Cannulae

Healthcare-associated infections (HAI’s) are a significant problem within NHS hospitals. As well as presenting personal, physical, psychological or social costs to patients and their relatives, the economic consequences (for instance increased duration of hospitalisation, prolonged treatment or medico-legal litigation) are a financial challenge to the organisation.

Our trust has high rates of trust-attributed MSSA bacteraemia. From review, in a large proportion, the bacteraemia was directly caused by sub-optimal cannula care. As a result, the ‘reducing MSSA’ group is looking at a variety of aspects of cannula management, including ANTT (Aseptic No-Touch Technique) compliance, regular assessment of the cannula (VIP scoring), reduction in unnecessary cannulas, amongst others.

The insertion of Peripheral vascular cannulas (PVCs) relies on puncturing the skin, which allows the transmission of bacteria into the bloodstream. Microorganisms that colonise the skin adjacent to insertion sites and from catheter hubs are the source of most CR-BSI (commonly Staphylococcus epidermis, S.aureus, Candida species or enterococci). These microorganisms contaminate the catheter on insertion and migrate along the catheter track or via the hub from hands during care interventions. In these cases the plastic lumen cannot be easily reached by the host defense mechanisms and the transient bacteria can thrive.

The transmission of HCAIs can be reduced and often prevented through good clinical practice.

What medical staff can do to improve practice and reduce the incidence of HCAIs within the Trust:

- Only insert cannulas when there is a clear indication to do so
- Select appropriate site for insertion. It is preferable to use the non-dominant arm with the cannula sited away from elbow and wrist joints, thereby reducing the likelihood of dislodgement through movement and to maintain cannula patency. Hand veins have a lower risk of phlebitis than veins on the wrist or upper arm.
- Avoid insertion into lower limbs in adults if possible, due to the increased risk of embolism and thrombophlebitis
- Demonstrate effective hand hygiene before and after patient contact
- Use Aseptic Non-Touch Technique and correct Personal Protective Equipment
- Dress the insertion site with a sterile, transparent, semi permeable dressing to allow observation of the insertion site, write date and time of insertion on the dressing
- Dispose of sharps safely
- Record cannula insertion/removal on CPD

Recording cannula insertion on CPD:

Recording any procedure performed on a patient is a GMC requirement – signed and dated. This can be done via ‘Ward List’ or the patient’s ‘ICR’:

- ‘Inserted by’ will automatically be set to you but you can change this if it was inserted by a colleague or enter unknown if needed.
- Select site, side and ‘Reason’ for cannula
- You can also record notes e.g. verbal consent or difficult cannulation or number of attempts
- Once saved you can repeat to add in further cannulas where a patient has more than 1

The Peripherally Inserted Vascular Cannula (PIVC) Guidelines are available on StaffRoom: http://staffroom.ydh.yha.com/policies-and-procedures/clinical/infection-prevention/peripherally-inserted-vascular-cannula-pivc-guidelines/view

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Research and Development

On the 9th June colleagues from the R&D Department York Hospital and the Health Sciences Department, University of York presented three workshops at the Patient Safety Conference at York Racecourse. Their presentations were aimed at helping staff with key areas of support that many researchers need to get their research portfolio going, as follows:

- **Statistical support** – refresher course for grant applications and publications
  Ada Keding – Statistician

- **How to write a good grant application** – including PPI and grant costings
  Lydia Harris - Head of R&D and Belen Corbacho Martin - Research Fellow

- **How to write a publication**
  Noreen Mdege - Research Fellow

All workshops were well attended and the areas covered were such things as power calculations (how to make sure you get the right number of patients in your trial) and how to design your studies so they have the right statistical significance. What areas you should focus on when writing a grant application, common mistakes and problems and how to overcome them, how to organise Patient and Public Involvement support and how to ensure you cost your study. Finally once you have run your study how can you best write your findings up to ensure you get a publication in your preferred journal.

If you were unable to attend the workshops or are interested in finding out more about any of the subjects discussed, please contact Lydia Harris, Head of R&D who will be more than happy to help.

Lydia Harris, Head of Research and Development, Lydia.harris@york.nhs.uk or 019047266060

Free online courses

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Upload your certificate to your portfolio.
Visit www.improvement-academy.co.uk

Spot Diagnosis - Answers

A – Callus - [http://facultyofmedicine1.blogspot.co.uk/2010/12/what-is-your-medical-diagnosis-239.html](http://facultyofmedicine1.blogspot.co.uk/2010/12/what-is-your-medical-diagnosis-239.html)

B – Hammer toe - [http://facultyofmedicine1.blogspot.co.uk/2011/01/what-is-your-medical-diagnosis-295.html](http://facultyofmedicine1.blogspot.co.uk/2011/01/what-is-your-medical-diagnosis-295.html)

C – Acromegaly - [http://facultyofmedicine1.blogspot.co.uk/2011/01/what-is-your-medical-diagnosis-298.html](http://facultyofmedicine1.blogspot.co.uk/2011/01/what-is-your-medical-diagnosis-298.html)

Group Representation

We are working to empower and support junior doctors to attend and contribute to Trust level meetings. Junior doctors and groups will benefit! The following groups are looking for junior representation:

- EPMA (Electronic Prescribing)
- HIPCG (Infection Prevention)
- Point of Care Testing Committee
- Admission Proforma Group
- Deteriorating Patient Group
- Patient Experience Steering Group

Contact PatientSafetyMatters@york.nhs.uk for more information or if you would like to get involved.

Editorial Team

Michel Zar (Specialty Doctor Trauma and Orthopaedics), Laura Bamford (Dental Core Trainee), William Lea (Improvement Fellow), Diane Palmer (Patient Safety), Helen Holdsworth (Pharmacy), Donald Richardson (Quality Improvement), Liz Jackson (Patient Safety), Elaine Vinter (Media & Communications)

Email PatientSafetyMatters@york.nhs.uk if you have any comments or would like to contribute. Check out www.yorkhospitals.nhs.uk/patientsafetymatters/ for more information