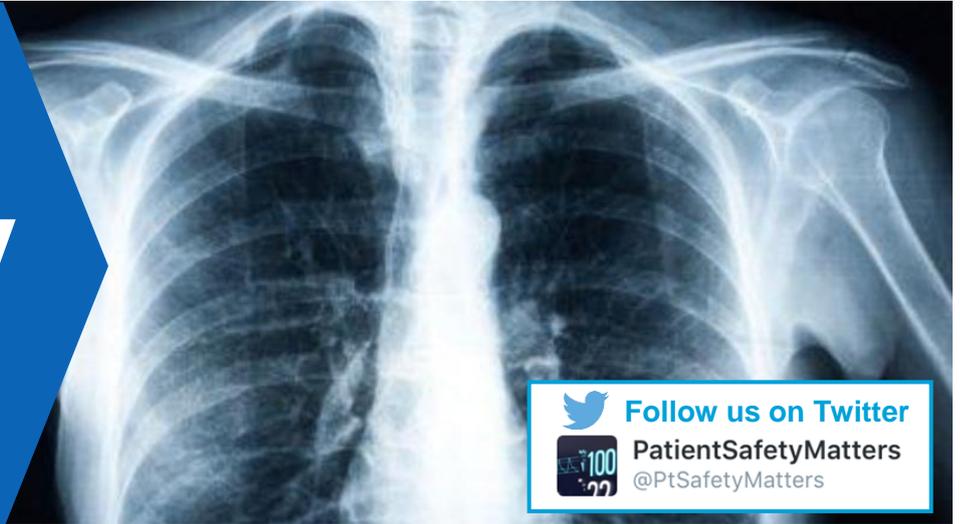


Patient Safety Matters



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PROMOTING A CULTURE OF SAFETY AND QUALITY AMONGST JUNIOR DOCTORS

ISSUE 11 – January 2017

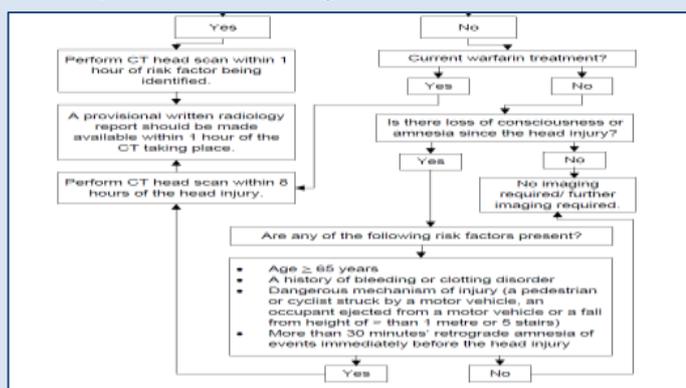
Clearing the cervical spine

Identification of trauma patients where cervical spine injury is a concern can be a clinical challenge. These patients range from those who walk into minors and 3 hours later inform you that they fell off a horse and landed on their head to patients with degenerative spinal conditions and don't forget the elderly patient with a crumbly spine may have fractured their vertebra when they bumped their head.

The NICE Head Injury pathway clinical guideline [CG176] contains a section on investigation for injuries to the cervical spine in patients with head injury¹. This incorporates the Canadian C-Spine rule and is convenient to glance at when using the head injury pathway.

Look for any of the following risk factors:

- GCS < 13 on initial assessment
- GCS < 15 at 2 hours after injury on assessment in the emergency department Suspected open or depressed skull fracture
- Any sign of basal skull fracture
- Post-traumatic seizure
- Focal neurological deficit
- More than one episode of vomiting since the head.



Remember:

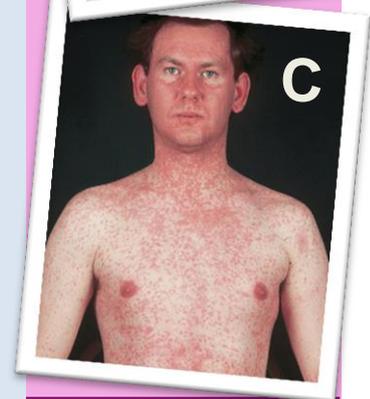
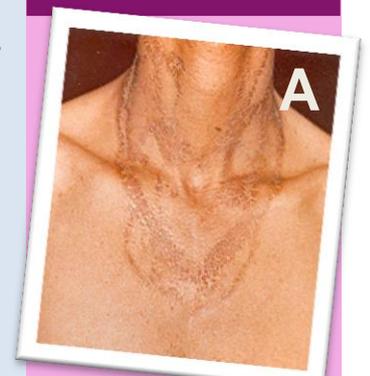
- If you suspect a spinal injury may have occurred, get help and advice.
- Have a low threshold for suspecting one!
- Don't force a collar.
- This is unlikely to be an injury you look after alone, so get the other team members involved sooner rather than later.

Dr Prerna Chinoy, Medical Core Trainee (Prerna.Chinoy@york.nhs.uk)

References:

1. <https://www.nice.org.uk/guidance/cg176/resources/imaging-algorithm-498950893>.
2. The Canadian C-Spine Rule versus the NEXUS Low-Risk Criteria in Patients with Trauma, New England Journal of Medicine (2003).

SPOT DIAGNOSIS



Answers on the last page. Send us your pictures!

Pharmacy

Helen Holdsworth (Deputy Chief Pharmacist)

Safe and clear prescribing

There have been a couple of incidents where abnormal pathology results have been telephoned to the wards and incorrect patients have received the treatment. In one instance a staff nurse received the blood results over the phone and misheard the patient's name. The results were given to the doctor who prescribed calcium gluconate to the incorrect patient.



The Pathology lab will ring the ward to alert them to abnormal results but these should then be checked on CPD, do not rely on someone else's verbal message before prescribing or amending a prescription.

A patient received 80mg of Methadone rather than 30mg, due to an unclear prescription. The patient was transferred from Scarborough Hospital to York Hospital and the methadone was on a standard drug chart as the opiate chart is not in use on the Scarborough site.



We are working to introduce the opiate chart at Scarborough but please, ensure you prescribe doses clearly.

There have been a number of incidents reported where nursing staff have administered medicines against incomplete prescriptions;

- Dalteparin given when no dose was prescribed
- Medication given when the allergy box is not completed
- Medications given when the prescriptions are not signed.



Nursing staff will not issue medication if the prescription is not complete so to save yourself from interruptions and aggravation, make sure it is right first time.

Pharmacy Quality Improvement Project - Volunteer needed!

There has been some concern expressed about the poor quality of some prescriptions making it challenging for nurses to administer medicines. We would like a junior doctor to conduct a service/quality improvement project involving an audit on compliance with the prescribing standards.

If you are interested please contact **Helen Holdsworth**, Deputy Chief Pharmacist
(helen.holdsworth@york.nhs.uk)

Dose of oseltamivir in renal impairment

As we have a fair bit of flu circulating at present I thought it would be a good time to send out a reminder that **oseltamivir** ('Tamiflu') requires a **significant dose reduction** in patients with creatinine clearances less than 60ml/min. This applies to doses for treatment and also prevention of influenza. Further details can be found by following this link: <https://www.medicines.org.uk/emc/medicine/20294>

If you have any questions please feel free to ask me or your pharmacist.

Susan Broughton, *Principal Pharmacist - Antimicrobials & Infection Control*
(Susan.Broughton@york.nhs.uk)

CONFERENCES

International Forum on Quality & Safety in Healthcare

26th – 28th April, London

More information:

<http://internationalforum.bmj.com/>

Patient Safety Congress, Manchester

4th - 5th July 2017

Poster competition: open for submission

<https://www.patientsafetycongress.co.uk/>

Procedural Never Events

'Never events' in healthcare include 'wrong site' procedures defined as '...involving the wrong person, organ, limb, side, or vertebral level'¹. More specifically, the NHS England 'never events' list² defines this as 'a surgical intervention performed on the wrong patient or wrong site (for example wrong knee, wrong eye, wrong limb, wrong tooth or wrong organ); the incident is detected at any time after the start of the procedure'.

The 2015/16 list of **fourteen never events from NHS England**² includes;

- Wrong site surgery
- Wrong implant/prosthesis
- Retained foreign object post-procedure
- Mis-selection of a strong potassium containing solution
- Wrong route administration of medication
- Overdose of Insulin due to abbreviations or incorrect device
- Overdose of methotrexate for non-cancer treatment
- Mis-selection of high strength midazolam during conscious sedation
- Transfusion or transplantation of ABO-incompatible blood components or organs
- Misplaced naso- or oro-gastric tubes.



Whilst it's arguable that never events 'are not due to a failure of clinical judgement or expertise',³ they are associated with a potentially high cost of litigation.³ **According to N.H.S. England, in 2012/13, there were 255 incidents of surgical never events⁴ out of 4.6 million [surgical] hospital admissions per year⁴.** Difficulties arise in the quantification of such events, as described by Stahel et al.⁵, where the effect of 'reporting bias' might all give an incomplete picture of the scale of the problem.

The '**Swiss cheese**'⁶ model, as described by James Reason, outlines that **complex systems rather than individual persons or events give rise to incidents**. A combination of physical, personnel and procedural 'defensive layers' each of which have variable deficiencies work to prevent hazards leading to adverse outcomes. 'High reliability organisations' understand this and work around the 'possibility of failure' and changing the 'conditions under which humans' work'⁶.

Within Medicine, the interaction of multiple factors is well understood in the context of disease. Prevention of never events however requires translation of this understanding from biology to similarly complex organisational and psychological systems.

There are technologies that mitigate for these human factors which can be employed to reduce the likelihood of such events occurring. Within the theatre environment, the N.P.S.A. 2010 publication⁷ '**Five Steps to Safer Surgery**' is one such model which was developed to support implementation of the W.H.O. checklist within N.H.S. trusts.

Healthcare is not 'immune to adverse events'⁶ and appreciating the impact of procedure-related incidents and developing systems that mitigate for these, requires a multi-modality and multi-disciplinary approach.

Mr Richard Khafagy, Consultant Urologist (Richard.Khafagy@york.nhs.uk)

References

1. Applying Fault Tree Analysis to the Prevention of Wrong Site Surgery. Zachary A. Abecassis, McElroy LM, Patel RRM, Khorzad R, Charles Carroll IV, and Mehrotra S. J Surg Res. 193(1): 88–94. (2015)
2. <https://www.england.nhs.uk/patientsafety/wp-content/uploads/sites/32/2016/01/never-evnts-list-15-16-v2.pdf> - Accessed 5 January 2017
3. Litigation costs of wrong-site surgery and other non-technical errors in orthopaedic operating theatres. Harrison WD, Narayan B, Newton AW, Banks JV, GCheung G. Ann R Coll Surg Engl 97: 592–597 (2015)
4. <https://www.england.nhs.uk/2014/02/surgical-safety/> - Accessed 13 October 2016
5. Wrong-site and wrong-patient procedures in the universal protocol era: analysis of a prospective database of physician self-reported occurrences. Stahel PF, Sabel AL, Victoroff MS, Varnell J, Lembitz A, Boyle DJ, Clarke TJ, Smith WR, Mehler PS. Arch Surg. 145(10):978-84 (2010)
6. Human error: Models and Management Reason J. BMJ 320: 768-770 (2000)
7. <http://www.nrls.npsa.nhs.uk/resources/?EntryId45=92901> – Accessed 10 January 2017

Quality Improvement Tips - Setting your Aim

Setting a strong aim is vital to the success of an improvement project. Anyone reading your aim should be able to understand what it is you are trying to achieve; how much, by when, where, for whom and why?

The **SMART** tool¹ provides some important considerations:

Specific - The aim is well-defined and clear, giving it a better chance of being reached than a general aim.

Measurable - Objectives should have a benchmark and target, to help determine when objectives are achieved.

Achievable - The aim is something that can actually be reached.

Relevant - The aim is relevant to your team or the organisation's needs, visions, and goals, and is agreed-upon by stakeholders.

Timely - The aim has a set time-frame to be met.

Examples of some good aims:

'Reduce adverse drug events (ADEs) in critical care by 20% within 1 year.'

'Achieve > 95% compliance with on-time prophylactic antibiotic administration within 1 year.'

'Reduce incidence of ventilator-associated pneumonia by 25%, in the York ITU, by 1st January 2018.'

For further tips visit the Institute for Healthcare Improvement website². There is also a range of local and regional quality improvement courses available – please email me for more information.

William Lea, IHI Improvement Coach (William.lea@york.nhs.uk)

References

1. Doran, G. T. (1981). There's a S.M.A.R.T. way to write management's goals and objectives. *Management Review*, Volume 70, Issue 11(AMA FORUM), pp. 35-36.
2. Institute for Healthcare Improvement. 2012. *Science of Improvement: Setting Aims*. [ONLINE] Available at: <http://www.ihl.org/resources/Pages/HowtoImprove/ScienceofImprovementSettingAims.aspx>. [Accessed 10 January 2017].

Statistical Process Control

9th February 2017 - The Improvement Academy is running a full day practical session in York on how to produce and plot SPC in Healthcare. This is designed to support managers and analysts in the Yorkshire & Humber providing hands-on experience of designing and developing SPC charts. To register follow the link below.

<http://www.improvementacademy.org/training-and-events/2017/02/09/statistical-process-control-spc-in-healthcare/>

Spot Diagnosis - Answers

A – Casal's Necklace (Pellagra) Source: <http://abdelhamiddermatlas.com> (Atlas of Clinical & Pathological Changes in Dermatology & Venereology) **B – Grey-Turner Sign (indicates retroperitoneal haemorrhage)**

Source: https://umem.org/educational_pearls/2292/ University of Maryland School of Medicine **C – Measles** Source: <http://www.webmd.com/skin-problems-and-treatments/picture-of-measles-2> WebMD

Send your 'spot diagnosis' pictures to PatientSafetyMatters@york.nhs.uk

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 want to get involved.

Editorial Team

Michel Zar, Editor (Specialty Doctor Trauma and Orthopaedics), Laura Bamford, Deputy Editor (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