Patient Safety Matters

PROMOTING A CULTURE OF SAFETY AND QUALITY AMONGST JUNIOR DOCTORS ISSUE 17 – August 2017

Antibiotic Treatment for Severe Sepsis

"Appropriate antibiotic therapy" given as early in the disease process as possible is essential in maximising the survival of patients with severe sepsis. Early recognition, investigation and treatment of these patients is a key challenge for all healthcare systems.

But what constitutes "appropriate antibiotic therapy"? Simply put this means giving antibiotics to the patient which are active against the strain of bacteria causing their infection. However at the time of starting treatment this is unknown and so we have to give "best guess" therapy initially. However in this era of rapidly rising levels of bacterial resistance, achieving effective coverage is becoming more difficult. **No single antibiotic can reliably achieve this aim.**

The Trust's Antimicrobial Policies are designed to address this problem. Guidance for treatment of patients with severe sepsis is shown in the pink section at the bottom of the Adult Antimicrobial Treatment Poster as shown. As you can see **none** of the suggested therapies are single antibiotics, but evidence from audits of severe sepsis patients in our Trust indicate many patients receive a single agent – typically piperacillin / tazobactam – only.

Further enquiry has indicated a particular problem with use of stat doses of gentamicin which are a very valuable part of treatment for a number of different types of infection. **The single dose of 3mg/kg can be given safely to all patients irrespective of renal function and does not require blood test results prior to administration.** Renal toxicity with gentamicin generally occurs after multiple doses given over a number of days due to cumulative effects of the drug and is rarely seen with a single dose.

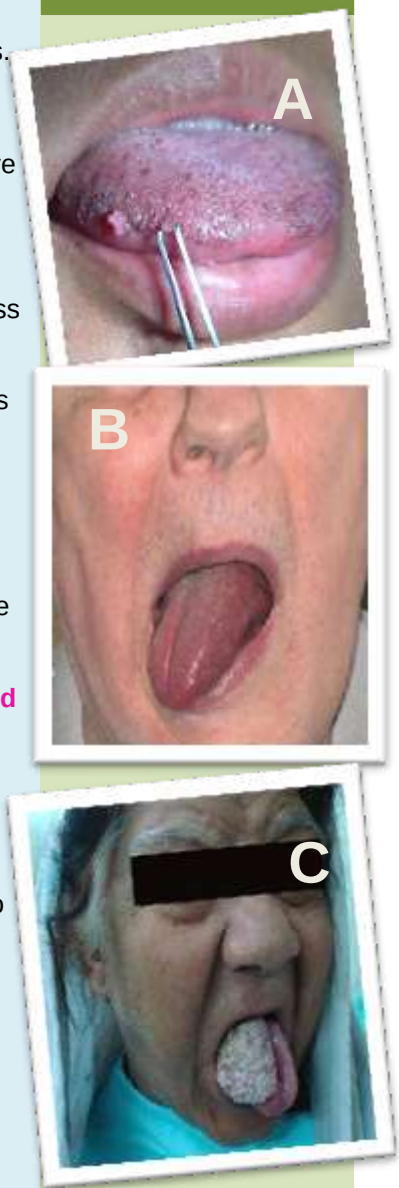
So in summary – patients with severe sepsis generally require more than one antibiotic to be given within an hour to achieve "appropriate antibiotic therapy". Gentamicin is an important inclusion as a second drug in many of our suggested combinations and can be safely given as a stat dose irrespective of renal function.

And remember – advice on use of antibiotics is always available from a Microbiologist via switchboard and prescribers are asked to discuss all severe sepsis patients within the first 24 hrs of commencing treatment.

Dr Neil Todd, *Clinical Microbiologist and Antibiotic Guardian,* neil.todd@york.nhs.uk

The Adult Antimicrobial Treatment Poster is available on StaffRoom: http://staffroom.ydh.yha.com/policies-and-procedures/antimicrobial-stewardship-guidelines/antimicrobial-stewardship-treatment-formulary-version-5l

SPOT DIAGNOSIS



Answers on the last page. Send us your pictures!

Head and Neck Antibiotics

In collaboration with ENT and Max Fax Consultants, the Antimicrobial Stewardship Team has produced an antibiotic poster for patients with diseases of the Head and Neck. The poster provides information on managing specific head and neck infections; including advice on suggested swabs and cultures, first line antibiotic choices, penicillin allergy alternatives and suggested course lengths. Effective drugs available to treat infections are not only being reduced by antimicrobial resistance but also more recently by on-going national and international issues with stock availability (unfortunately affecting some of our most commonly used antibiotics, including piperacillin/tazobactam).

Prescribers should send samples for culture (urine, blood etc) wherever possible before starting antibiotic therapy. All antibiotic prescriptions should be reviewed as soon as possible and within 48-72 hours of starting the treatment. Antibiotics should then be altered depending on sensitivities or stopped if infection is ruled out.

The poster can be viewed in full on Staff room: http://staffroom.ydh.yha.com/policies-and-procedures/antimicrobial-stewardship-guidelines

For further information please refer to Microbiology/Head and Neck/Pharmacy teams.

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 content provides a ‘mini handbook’ with information on teaching contacts and support as well as Trust guidance and guidelines for common medical conditions when on-call. There are over 110 clinical documents (including 15 medical scoring systems) in 23 categories which have been recommended by junior doctors. Initially Dr Charlotte Stephenson, a Quality Improvement Fellow worked on the app, but now Dr Aesha Mohammedi, a Leadership Fellow in Paediatrics will be providing paediatric content.

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
If you would like to suggest any clinical content please contact Jocelyn.matthews@york.nhs.uk

High Sensitivity Troponin T assay (Hs Trop)

From 1st August 2017 the lab is changing to high sensitivity Troponin T assay (Hs Trop). The new Hs Trop will enable faster assessment, management and decision making for patients presenting with Chest Pain.

The test should only be requested when there is a clinical suspicion of ACS, results should be Interpreted alongside clinical and ECG findings, patients with dynamic ischemic looking ECG and cardiac sounding chest pain need to be treated as ACS and referred to cardiology irrespective of Hs Trop results.

A new flow chart for management of Chest Pain suspected ACS is available on Staff Room: http://staffroom.ydh.yha.com/policies-and-procedures/clinical/general-acute-medicine/acute-medicine/chest-pain-suspected-acs-flow-chart

Hasan Al-Shakerchi, *Consultant Acute and General Medicine*, Hasanain.Al-shakerchi@york.nhs.uk

Patient Safety Congress Winners

The tenth annual Patient Safety Congress took place in Manchester on the 4th and 5th July 2017. York Hospitals NHSFT submitted some of our patient safety and quality improvement initiatives to share with our peers and stakeholders. Our initiatives were presented as part of a poster display that was showcased to over 1,000 patient safety experts and practitioners. The team from Ward 37 was voted as the winners of their category, a culture for learning and change, and second overall for their improvement project;

Reducing Falls on a complex Elderly Medical ward, specialising in patients with dementia.

The ward is a 22 bedded Elderly Medical Ward specialising in caring for patients with dementia. The patient group has extremely complex needs, can be unpredictable and patients' conditions often change dramatically from minute to minute. Staff are presented with a huge challenge on a daily basis to manage risks and maintain patient safety and were reporting the highest number of falls in the Trust. According to NICE (2013)[1], falls in hospitals are a common and serious problem estimated to cost the NHS more than £2.3 billion per year. Around 30% of people aged 65 years or older have a fall each year, increasing to 50% in people over 80 years of age.

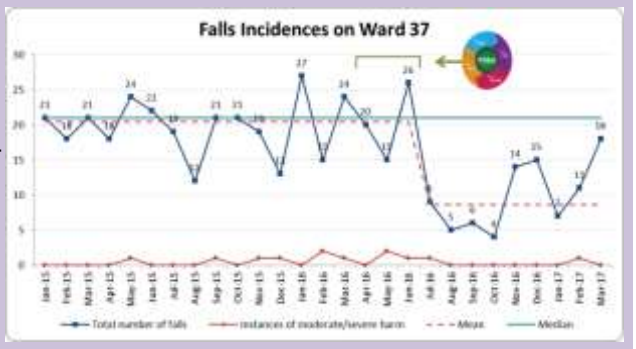
Methodology

Using PDSA improvement methodology, the ward team developed and tested initiatives whilst closely monitoring the impact and the number of falls reported. Initiatives included;

- Developing a Falls Prevention and Reduction Checklist - ensuring all aspects of the falls risk assessments were completed and that all interventions had been considered and implemented
- Introduction of routine observations, in addition to hourly intentional rounding they consisted of a visual check of all patients on the ward every 15 minutes to identify any increase in agitation or restlessness, a tool was implemented to document any observations and care given
- Introduction of daily ward huddles with the MDT with a particular focus on falls risks and interventions
- Use of a white board to document interventions and highlight any outstanding tasks. The whiteboard includes information such as the patients footwear and mobility aids required
- Reviewing the staffing model. Staffing establishment was increased to provide additional support on a late shift when most patient falls occurred.

Results

Between July and December 2015 an average of 19 falls per months were reported. Following improvement initiatives commencing in July 2016 the average number of falls reported per months has reduced to 10.



Conclusion

This work has shown a reduction in the total number of falls. Several other wards within the Trust have since utilised the 15 minute observation tool.

Victoria Elletson, *Patient Safety Manager*, Victoria.Elletson@york.nhs.uk

References
[1]NICE. Falls: assessment and prevention of falls in older people. (CG161). London: NICE, 2013. http://www.nice.org.uk/guidance/cg161

Paired Learning Programme

James Houston, a Leadership Fellow in the region, plans to run a 'paired learning programme' which is essentially a 'buddying' programme, pairing up junior doctors and hospital managers over a four month period. This is potentially a great opportunity for both parties to learn from each other and break down some of the 'traditional barriers'. The programme is due to start in September. For more information click here: Paired Learning Briefing

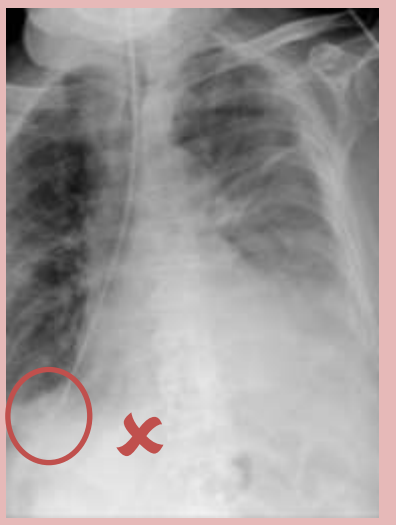
If you would be interested in taking part or have any questions please contact James directly.

James Houston, *Leadership Fellow*, James.Houston@hee.nhs.uk

NHS Health Education England

Protocol for Adult Patients Receiving Enteral Feeding via a Naso-gastric or a Naso-jejunal feeding Tube

Nasogastric tube (NGT) feeding is common practice and thousands of tubes are inserted daily without incident. However, there is a risk that the tube can become misplaced into the lungs during insertion, or move out of the stomach at a later stage.

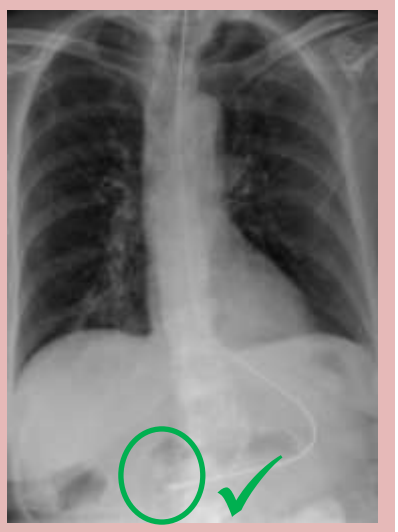


Use of misplaced nasogastric tubes was first recognised as a patient safety issue by the National Patient Safety Agency (NPSA) in 2005 and 4 further alerts were issued by the NPSA and NHS England between 2011 and 2016. Introducing fluids or medication into the respiratory tract or pleura via a misplaced nasogastric or orogastric tube is a Never Event. Between September 2011 and March 2016, 95 incidents were reported to the National Reporting and Learning System (NRLS).

The Trust Protocol has been updated by the Nutrition Steering Group. The amended version includes significant changes which enhance the safety of patients receiving enteral feeding via these tubes, and complies with NPSA recommendations.

Important changes:

- Detailed checklists have been introduced which must be acted upon and signed for
- Stickers must be completed, and placed in the patients' medical notes, to confirm details of initial NG tube placement
- Separate guidance is given for: 1. initial placement of NG tubes and 2. Subsequent confirmation of position of existing NG tubes
- For subsequent position checks of NG tubes, measurement of the external length has been introduced for those cases where a pH of <5.5 cannot be obtained. Tape measures are required for this which can be obtained through supplies. Please ensure you are recording information about the current NG tube as patients often have several during an admission. If doubt exists about tube displacement after these 2 measures, a chest xray should be obtained as before.



Training has been carried out throughout the Trust on the insertion and position checking of nasogastric and nasojejunal tubes. A training package is also available on the learning hub to take all doctors through safe x-ray interpretation of naso-gastric tubes and the correct method to utilise when checking an x-ray: https://learninghub.yorkhospitals.nhs.uk/enrol/index.php?id=1441

The latest version of the protocol will become active from 1st September 2017 and will be available on staff room: Policies-and-procedures>clinical>nutrition-and-dietetics. Please ensure that all previous versions are removed from wards from this date.

Berenice Carter, *Professional Lead, Nutrition and Dietetics*, Berenice.Carter@York.NHS.UK
Peter Wanklyn, *Stroke Physician,* Peter.Wanklyn@york.nhs.uk

To watch the NHS Improvement Academy video 'Nasogastric tube misplacement: continuing risk of death and severe harm' click here https://www.youtube.com/watch?v=7dSEKQLMa18&feature=youtu.be

Spot Diagnosis - Answers

A – Tongue wart/papilloma - http://facultyofmedicine1.blogspot.co.uk/2010/11/what-is-your-medical-diagnosis-224.html **B** – Right hypoglossal nerve palsy - http://facultyofmedicine1.blogspot.co.uk/2011/01/what-is-your-medical-diagnosis-282.html **C** – Squamous cell carcinoma - http://facultyofmedicine1.blogspot.co.uk/2010/12/what-is-your-medical-diagnosis-253.html

Group Representation

We are working to **empower** and **support** junior doctors to attend and **contribute** to Trust level meetings, such as VTE Committee and Mortality Steering Group.

For more information or if you would like to get involved please contact PatientSafetyMatters@york.nhs.uk

Editorial Team

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