Emergency Care Institute
NEW SOUTH WALES

2013

June Newsletter

Contents

Welcome to ECI News

Welcome to the second edition of the Emergency Care Institute Newsletter! It will keep you up-to-date with the latest in emergency care, and inform you of what we at the ECI, and in NSW Emergency Departments (EDs), are up to.

We like interaction with our community! If you would like our newsletter to investigate a specific clinical topic, why not tells us?

The Newsletter will now be bi-monthly, with the next editions in August, October and December.

An electronic version of this newsletter (and past issues) are available on our website at **www.ecinsw.com.au**

Public health alerts and patient safety watch

We now have the latest information about evolving respiratory pathogens and avian influenza virus on our website.

The 27 May NSW Health Clinical Update advises clinicians to consider:

- MERS-CoV infection in patients with acute pneumonia/pneumonitis AND a history of travel in the Arabian Peninsula in the previous 10 days.
- Influenza A(H7N9) infection in patients with acute pneumonia/ pneumonitis AND a history of travel in China in the previous 7 days.

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ACI NSW Agency for Clinical Innovation

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Clinical Issues Du Jour

Latest ED Leadership Forum

On 31 May the ECI held its quarterly Leadership Forum in North Sydney. This Forum has been established to bring together ED Leadership Teams to discuss topics of interest relating to emergency care. On the day, presentations provided the audience with the latest evidence and thinking on topical areas such as:

Envenoming: Where's the toxicologist, antivenom and helicopter?

Dr Geoff Isbister, Toxicologist, Newcastle Mater Hospital

Transfusion 2013: ED focus

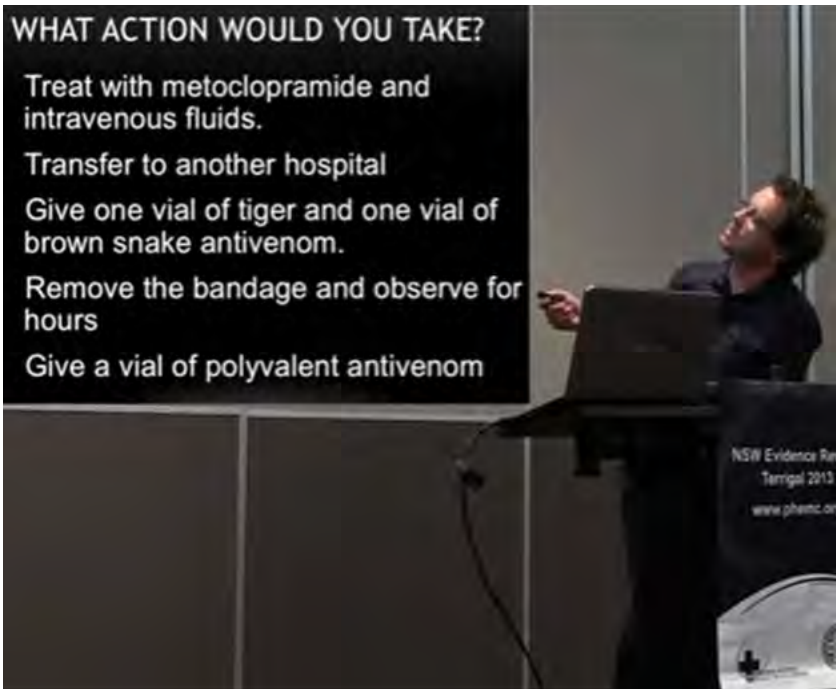
Dr Amanda Thomson, Transfusion Medicine Specialist, Australian Red Cross Blood Service and Clinical Adviser, CEC BloodWatch program

Pandemic Flu Update

Dr Sean Tobin, Medical Epidemiologist, Communicable Diseases Branch, Health Protection NSW

To view the presentations and find out more about the forum click here or visit www.ecinsw.com.au/ed-leadership-forum

The next ED Leadership Forum will be on **Friday 9 August 2013** – make sure you save the date!



Virtual Conferences

Our Virtual Conference page is up under the Education and Training menus (and then conferences) on our website. Of particular interest to a number of ED clinicians will be the Terrigal Evidence Review with fantastic presentations by such speakers as:

- Rod Bishop: *Lumbar Puncture: who needs one, how to do it, and interpreting the results*
- Geoff Isbister: *Bites and Stings: what's the new evidence*.

The Review for those who are not familiar with it, dissects down to the nitty-gritty of the available research and answers a lot of questions you want answered before you (or your patients) die. Don't get left behind!

ECI visits across NSW

The ECI has been out and about. Our recent workshop in Orange on 13 May was a success, with a focus on paediatrics, including paediatric x-rays, lumbar puncture and managing airway and breathing in the child. See the workshop program for details.

You can register for the August ECI Workshop in Albury 22 August on our website. Provisional topics include: acute eye problems, breathing emergencies, head injuries/ trauma and abdominal pain in the elderly.

The ECI believes it is important to meet and talk to staff working in emergency. That is why in March we visited Moruya, Batemans Bay, Milton, Shoalhaven, Shellharbour and Wollongong Hospitals. Visits continued in May, where we travelled to Cowra, Forbes, Orange, Bathurst and Parkes Hospitals. If you would like us to visit your department let us know on our website.

New recruits to the ECI team

Many of you will know us already, but we have had two new members of staff recently. **Dwight Robinson** is our new Nursing Project Officer seconded from Nepean ED and **Michelle Spelman** is a Registrar funded under the Federal Government STP Scheme working at ECI.

If you have a great idea for something, why not give us a ring, send us an email, or feedback through the website?

Sally McCarthy	*Medical Director*
Vanessa Evans	*Network Manager*
Sophie Baugh	*Special Projects Manager*
John Mackenzie	*Medical Project Officer*
Matthew Murray	*Data and Information Manager*
Dwight Robinson	*Nursing Project Officer*
Michelle Spelman	*Registrar*

New clinical tools

Make sure you've see all our clinical tools including warfarin and dabigatran.

Warfarin

In keeping with our claims of keeping up-to-date we have recently adjusted our over warfarinisation clinical tools. The consensus committee which reviews these guidelines has expanded the "mid-range" INR to 4.5-10, so in reality not a lot to change for your practice there.

In contrast to 5 years ago we now use Prothrombinex VF in most Australasian Hospitals. Where there are "clinical use" issues with these products, always discuss with a haematologist. Use the updated links where the current evidence is reviewed.

At either end of the spectrum such as a low range elevation one end and life threatening bleeding at the other the decisions are usually simple, but in between it can get complex assessing the risks and benefits of various treatments. The consensus document and our tool are designed to help in these instances. The recommendations are also quite clear on safe INR ranges for urgent and semi elective procedures (<1.5).

If you manage these patients regularly then we suggest you go to the MJA 2013[1] "An update of consensus guidelines for warfarin reversal".

1) *An update of consensus guidelines for warfarin reversal*. Huyen A Tran, Sanjeev D Chunilal, Paul L Harper, Huy Tran, Erica M Wood and Alex S Gallus, on behalf of the Australasian Society of Thrombosis and Haemostasis Med J Aust 2013; 198 (4):198-199.

Of course the new big worry is dabigatran and bleeding and our relative inability to reverse it. There are many less bleeds and the risk profile is better but not a lot of patients are on it yet.

Dabigatran (Pradaxa)

Dabigatran continues to be topical and continues to exist without an antidote or formal reversal guideline. It is brought to us courtesy of Boehringer Ingelheim and made its appearance in Australia in April 2011. The ECI in conjunction with the available evidence to date has produced a tool to help with the management of bleeding in patients on dabigatran and can be accessed via the ECI webpage. We are keeping a close eye on this and regularly update our dabigatran page with the latest facts and discussions.

It is an orally active direct thrombin inhibitor and is primarily renally excreted. It is prescribed for VTE prophylaxis following major orthopaedic surgery (hip or knee) and prevention of stroke and other systemic emboli in non-valvular atrial fibrillation.

There is an increased risk of bleeding in patients >75 years, moderate renal impairment (creatinine clearance 30-50 ml/min), concomitant use of anti platelet or NSAID medication.

It is contraindicated in severe renal impairment (creatinine clearance <30 ml/min).

The proposed benefits of dabigatran are that it is a fixed dose drug, routine coagulation monitoring is not required and there is a low potential for drug and food interactions. The RELY[2] trial results suggest:

- The rate of stroke was significantly less in patients on 150mg BD of dabigatran as compared to warfarin
- There was no significant difference in major bleeding between these two groups
- Dabigatran 110mg BD was associated with a significant reduction in risk of major bleeding and intracranial haemorrhage was significantly less common in both dabigatran groups compared to warfarin
- The rate of major gastrointestinal bleeding was significantly higher for patients receiving 150mg BD dabigatran as compared to the warfarin group.

In August 2012 the TGA completed a safety review of dabigatran. Of note the number of adverse events recorded up to 8 November 2012 were 935 of which 666 were classified 'serious'. (Serious adverse events are defined as events which result in death, are life-threatening, cause or prolong hospitalisation, cause incapacity/disability or result in a congenital anomaly/birth defect). Summary of the adverse events:

- Some of the bleeding adverse events occurred during the transition period from warfarin to dabigatran
- Many of the adverse events are occurring in patients on the reduced dosage (110mg BD)
- The most common site of serious bleeding reports for dabigatran is the gastrointestinal tract, whereas for warfarin it is intracranial.

2) *Dabigatran versus Warfarin in Patients with Atrial Fibrillation*. Connolly SJ, Ezekowitz MD, Yusuf S et al. N Engl J Med 2009 361:1139-1151

ED Quality Framework

Did you know that the ECI is running a project implementing a Quality Framework in 24 EDs across NSW?

What is the project?

The Australasian College for Emergency Medicine (ACEM) Policy on a quality framework for emergency departments was developed due to the belief that '*a quality culture is fundamental to the provision of the highest standard of care in Australasian emergency departments*'. It aims to illustrate the requirements of EDs to provide high quality patient care services and develop quality initiatives.

The ECI has developed resources and supporting tools to allow assessment and implementation of the framework and Quality Support Officer (QSO) posts have been funded in 24 EDs throughout NSW for twelve months. These posts support ED teams to establish a quality team, implement and evaluate the ED Quality Framework, develop a workplan and undertake a range of quality projects which are mapped against the framework. In addition to the locally determined activities, all sites are undertaking two mandatory projects:

- Sensible Test Ordering Project (STOP)
- Death reviews and M&M (Morbidity and Mortality) meetings in the ED.

Appropriate pathology test ordering

Ordering appropriate pathology tests is an important part of the operation of an efficient ED. To help optimise test ordering, the Australasian College for Emergency Medicine and the Royal College of Pathologists of Australia have developed a new Guideline on Pathology Testing in the Emergency Department.

It contains a 'matrix' designed as a rapid reference guide for junior medical and nursing staff working in EDs. The aim is to assist appropriate pathology requesting for common emergency presentations.

Committee Updates

To view the latest ECI Committee one page meeting summaries visit the ECI website or click on the links below:

- Clinical Advisory Committee
- Incident Advisory Committee
- Research Advisory Committee
- Executive Committee

Highlights

Twitter and Facebook

We now have our Facebook and Twitter accounts, please follow us for early notification of updates.

Use of Twitter in particular for notification of our resources, such as new clinical tools will be useful. For those of you who don't yet have an account we suggest you get one and get on board, you will be revered by your friends and colleagues and your children will laugh less at you.

Why not bite the twitter bullet now to see what all the fuss is about? If you find any technical problems, give Matthew Murray or John Mackenzie at the ECI a ring.

https://twitter.com/ECINSW

http://www.facebook.com/ECINSW

Nurse Delegated Emergency Care (NDEC)

The ECI are leading the new NDEC project to roll out a new Model of Care (MoC) to Level 2 facilities designed to manage very low risk, low acuity patients. Some features of NDEC includes:

- Patients are assessed against strict inclusion criteria and will be triage category 4 or 5.
- If the patient can be managed under the MoC then the RN may provide nursing interventions to manage symptom relief. The patient may then be discharged with specific follow up instructions, a phone call and/or to return to the ED/local GP clinic as appropriate.
- It is only implemented with the express support and cooperation from the GP(s), HSM/NUM and LHD.

This MoC addresses a number of the top challenges identified by rural and remote clinicians in our ECI stakeholder survey. In June all Level 2 facilities and LHDs are being sent information on the MoC and invited to nominate themselves to be included in the first tranche of sites to have the MoC rolled out. If you would like to know more speak to Dwight or Vanessa via our contacts page.