

ASK *for* Guidance MS

Mr Suman Adhikari, Mr Stuart Bond, Dr Craig Boutlis,
Ms Adriana Chubaty, Dr Kate Clezy, Ms Anna Fischmann,
Dr Pam Konecny, Mr Alastair McDougall, Dr Michael McGlynn,
Mr Arun Subhag, Ms Julie Thompson, Ms Johneen Tierney

October 2013



Health

Illawarra Shoalhaven
Local Health District



Health

South Eastern Sydney
Local Health District

Background

- Antimicrobial stewardship knowledge (ASK) is a multidisciplinary, multi-site project to improve antimicrobial prescribing
- Hospitals used different manual methods to manage antimicrobial use
- Staff did not feel empowered to effect changes for inappropriate antimicrobial use
- Guidelines not standardised – difficult to find, not routinely updated
- Smaller sites did not have access to same level of resources or expertise as larger hospitals



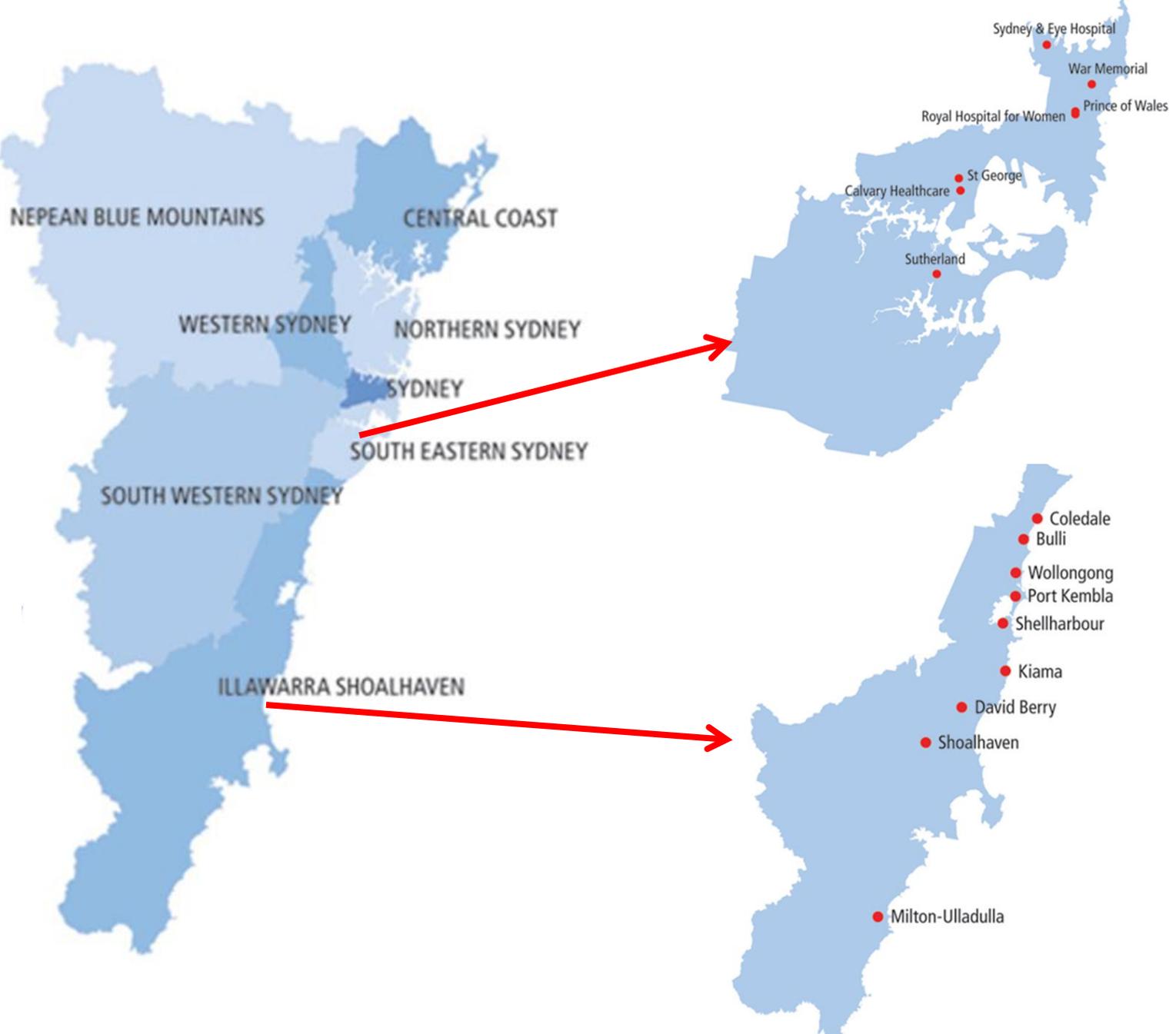
Health

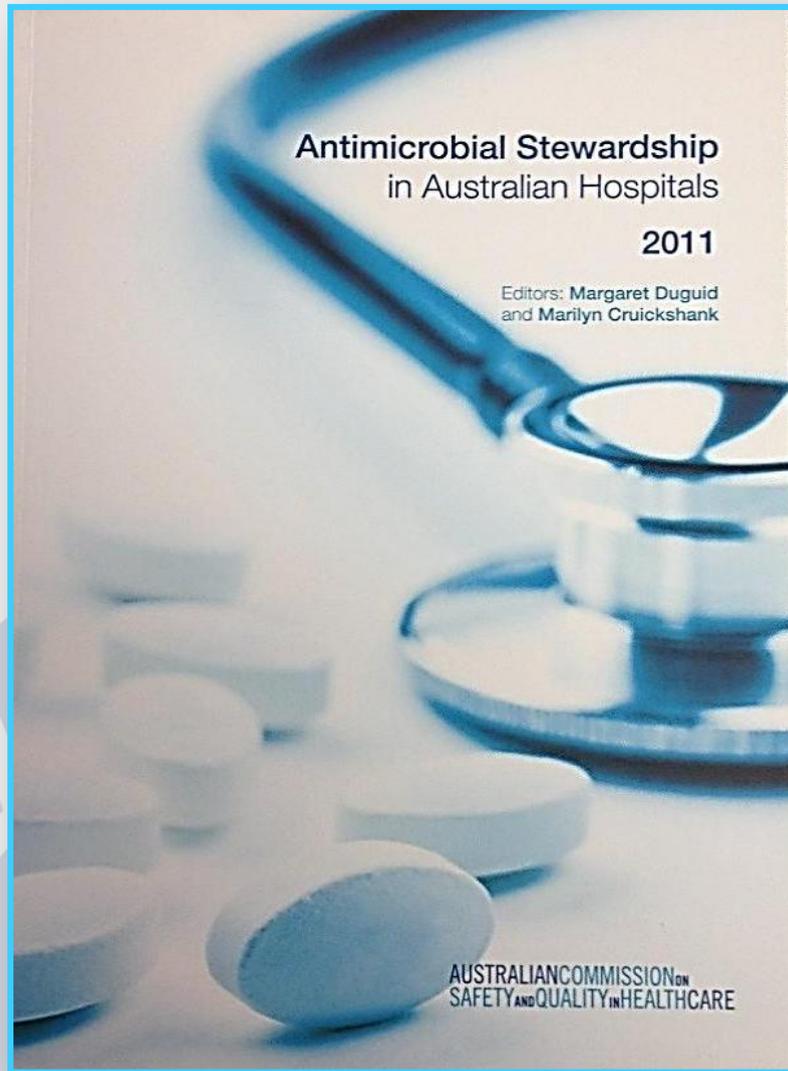
Illawarra Shoalhaven
Local Health District



Health

South Eastern Sydney
Local Health District





The ACSQHC Blueprint



Health
Illawarra Shoalhaven
Local Health District



Health
South Eastern Sydney
Local Health District

Implementation

- Electronic solution seen as enabler to drive clinical improvement
- Selected Guidance MS after rigorous tendering process
- Extensive consultation and collaboration to develop clinical guidelines and governance process
 - ID specialists, AMS pharmacists
 - Other medical staff, pharmacists
 - Hospital executive, clinical councils
 - Drug and therapeutics committees
 - Infection prevention and control



Health
Illawarra Shoalhaven
Local Health District



Health
South Eastern Sydney
Local Health District

Patient Name: **NO PATIENT SELECTED** MRN: **NONE** Gender: **xx** Age: **xx Yrs** Specialty: **NONE**
 Drug Guideline: **Ceftriaxone** Source: **Guidance Implementation Clinical Working Group** Ward: **NONE**

[<< Back](#) [Done](#) [Start of Guideline](#)

This patient meets the criteria for approval for ceftriaxone use.
The recommended dose is CEFTRIAXONE 1 g (child: 25 mg/kg up to 1 g) IV, daily.
This antibiotic is usually given with other antibiotics for this indication.
Use the link on the right to view this topic in the *Therapeutic Guidelines: Antibiotic*.
The approval number is valid for 3 days.

Note: No dose adjustment is needed with renal impairment. Ceftriaxone is category B1 in pregnancy and is compatible with breastfeeding but may cause diarrhoea in the infant.

Click 'Get Approval' or press 'Enter' to get an approval number.

--- END OF GUIDELINE ---

Severe Community Acquired Pneumonia



[Click here to view this topic in the Therapeutic Guideline: Antibiotic website](#)

Important management issues

- Severe community acquired pneumonia is defined as pneumonia requiring (or likely to require) ICU management
- 10% of community acquired pneumonias are severe, and their mortality rate is high (around 25-50%).
- Tachypnoea, hypoxia and/or hypercapnia, or hypotension should prompt discussion with a senior clinician regarding the need for intubation or noninvasive ventilation or inotropic support.

Important clinical clues to monitor -

- Confusion (new onset),
- Oxygenation (Sats < 90%),
- Respiratory rate (> 30),
- Blood pressure (sBP < 90 or diastolic < 60mmHg) [CORB]

Empirically, coverage for pneumococci, gram-negatives and atypical bacteria (e.g. legionella) is recommended.

For patients with community-acquired pneumonia requiring hospital admission, a severity scoring system (e.g. CORB or SMART-COP) can be used to help identify patients with 'severe' disease early.

For patients with severe CAP and those requiring intensive care management, broad-spectrum

[Get Approval](#) | [Search Approvals](#) | [Guideline Browser](#)

Search Panel **1**

Approvals Created:

For Speciality:

For Wards:

Patient MRN: OR

Only Pharmacy Alerts Only Approvals Needing Attention Include Expired and Discontinued Approvals

[Show Advance Search](#)

Results Panel

* Expired Approvals Needing Attention * Pharmacy Alerts

46 Approvals Found

Click to export the approval data as Excel or CSV

MRN	Name	Drug	Indication	Action	Disc	History	#	Date	Exp.	Specialty	Ward	Presc.	Status	Auth.	
136089		Azithromycin	Pneumonia: Community acquired - severe	Extend	Disc.	View		XXX-1402-3	14 Feb 2013 [09:55]	17 Feb 2013	General Medicine	Medical Assessment Unit	Terrill, Matthew	Current (Recommend Followup)	SYSTEM
471382		Ceftriaxone	Pharmacy Alert: Indication: Unknown Reasons: pneumonia. C Quinn	Extend	Disc.	View		PHR-1402-x	14 Feb 2013 [13:18]		Geriatric Medicine	B8 - Nephrology/Medical Unit	Khan, Shabana	Needs Approval	PHARMA
219402		Ceftriaxone	Pharmacy Alert: Indication: Unknown Reasons: Please convert this Pharmacy Alert to an Approval if you wish to continue prescribing this drug for this patient d	Extend	Disc.	View		PHR-1402-x	14 Feb 2013 [14:40]		G1 Surgery	B4 Surgical	Borg, Sandra	Needs Approval	PHARMA
407758		Linezolid	OVERRIDE: VRE UTI - currently on linezolid 600mg IV 12hrly.	Extend	Disc.	View		55-1202-7	12 Feb 2013 [14:32]	19 Feb 2013	Geriatric Medicine	B7 Medical	Bond, Stuart	Current (Recommend Followup)	Bond, St
275609		Meropenem	OVERRIDE: Treatment of intra-abdominal collection with E58L Enterobacter	Extend	Disc.	View		SC-1102-6	11 Feb 2013 [09:56]	17 Feb 2013	General Surgery	B4 Surgical	Crawford, Simeon	Current (Recommend Followup)	Crawford Simeon
			OVERRIDE: Stanh					SR-	11 Feb 25				Current		



Antimicrobial Stewardship Home

Antimicrobial usage

Checklists

Committee

Infectious Diseases unit

Policies and guidelines

Resources

Specimen collection

Useful links

NB. This is the live site

Guidance MS
V 1.3

NB. Test site only

Guidance MS
V 1.3 **Test**

Home >> [Antimicrobial Stewardship](#)

Antimicrobial Stewardship



- **NEW: Antibiotic hotlines for instant advice 9 to 5, Monday to Friday**
 - **Wollongong (ext. 3838), Shellharbour (3838), Bulli (#2828), Pt. Kembla (3535)**
- [Restricted antimicrobials list \(ISLHD, 2012\)](#)
- [What is antimicrobial stewardship?](#)

Helpful links for antibiotic prescribing

- [Creatinine clearance calculator](#)
- [Febrile neutropenia guidelines \(ISLHD\)](#)
- [Gentamicin dosing / monitoring of prolonged use](#)
- [MIMS drug interactions](#)
- [Pathology \(MedCouRieR\)](#)
- **Pneumonia: SMART-COP / CORB / Mild / Mod / Severe Rx**
- [Renal impairment: Dosage adjustment \(eTG\)](#)
- [Sepsis Kills: Antibiotics / Pathway / Guidelines](#)
- [Therapeutic guidelines \(eTG\)](#)
- [Vancomycin dosing and monitoring \(eTG\)](#)
- **[Viral swabs \(nose and throat\)](#)**



Results

- Improved appropriateness of prescribing according to evidence-based clinical guidelines
- Reduction in usage of many broad spectrum antibiotics relative to National Antimicrobial Utilisation And Surveillance program benchmarks

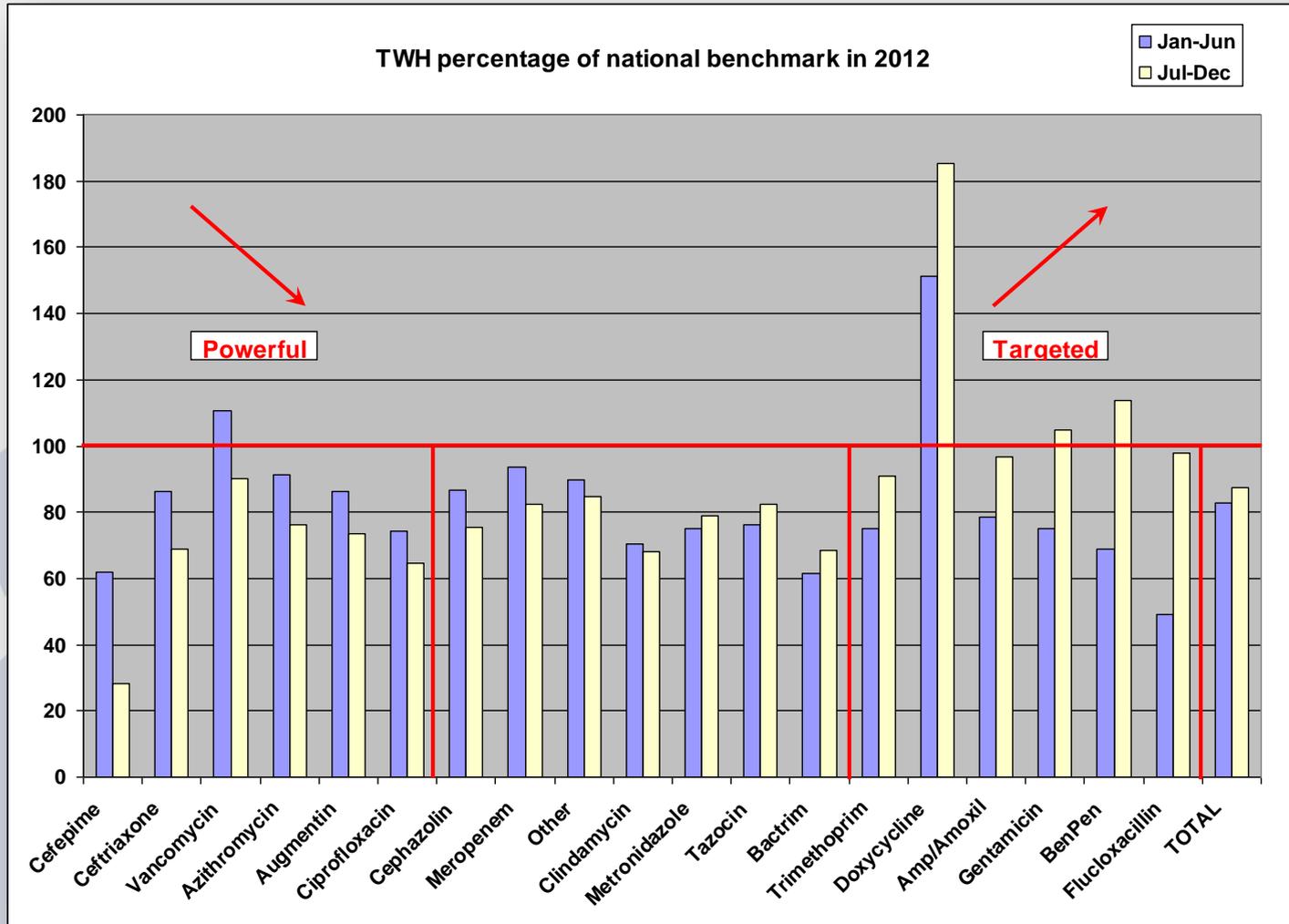


Health
Illawarra Shoalhaven
Local Health District



Health
South Eastern Sydney
Local Health District

Less “powerful” and more “targeted”



Reduction in antimicrobial costs

Facility	2011 Av. Monthly Antimicrobial \$	2012 Av. Monthly Antimicrobial \$
A	135,079	117,867
B	153,234	129,644
C	15,087	9,220
D	20,824	12,579
E	112,179	94,880
F	156,751	131,953



Health
Illawarra Shoalhaven
Local Health District



Health
South Eastern Sydney
Local Health District

Other benefits

- High uptake of the program
- High user satisfaction
- Enabled sites to meet national accreditation standards
- Ability to identify and address previously unknown practices
- Efficient use of resources through collaboration



Health
Illawarra Shoalhaven
Local Health District



Health
South Eastern Sydney
Local Health District

Key learning and advice

- Collaborative, multi-site and multidisciplinary approach to improve antimicrobial prescribing and management
 - Infectious Diseases/Microbiology/Pharmacy/IT partnership
 - Executive support
 - Monitoring and restriction in real time
 - Presence in the hospital (website, branding, etc)



Health

Illawarra Shoalhaven
Local Health District



Health

South Eastern Sydney
Local Health District

Key learning and advice

- Transitioned from struggling to contain and manage inappropriate antimicrobial prescribing to implementing a consistent, sustainable, state of the art program that supports appropriate antimicrobial prescribing
- Enables clinical teams to work efficiently and effectively together to improve patient outcomes



Health
Illawarra Shoalhaven
Local Health District



Health
South Eastern Sydney
Local Health District

Acknowledgements

- Executive Sponsors across SESLHD and ISLHD
- Clinical Champions
 - Infectious Diseases Specialists
 - Microbiologists
 - Pharmacists
- Information Communication and Technology (ICT) team
- Sydney Children's Hospital Network (Randwick campus) colleagues
- Melbourne Health – Guidance MS



Health

Illawarra Shoalhaven
Local Health District



Health

South Eastern Sydney
Local Health District