Today we will talk about...

1. Antimicrobial resistance – a global health problem
2. Antimicrobial Stewardship (AMS) – one solution
3. The ACSQHC (the Commission) – what are we doing?
4. What are we learning?
5. What are the Commission’s next steps?
Antimicrobial resistance (AMR)
A global health problem

The discovery of antimicrobials

- A significant milestone in modern medicine

The development of resistance

- Not a new phenomenon
- Alexander Fleming “told us so”

The problem now

- Increased prevalence of resistant organisms, decreased effectiveness of medicines to prevent and treat infections
- A world wide concern
“...a problem so serious that it threatens the achievements of modern medicine. A post-antibiotic era – in which common infections and minor injuries can kill – far from being an apocalyptic fantasy, is instead a very real possibility for the 21st century.”
The consequences...

**The New York Times**
Dead Brooklyn Boy Had Drug-Resistant Infection
By SEWELL CHAN  OCTOBER 28, 2007 9:10 AM

**Scientific American**
Antibiotic Resistance Is Now Rife across the Globe
April 30, 2014  By Diana Fine Marion

**The Sydney Morning Herald**
'Greatest threat to human health'
'Silent threat of the superbug'
Greatest threat to health of humanity just decades away
February 16, 2011
April 30, 2013
December 28, 2013

**THE AUSTRALIAN**
Australia in the path of superbug threat
SEAN PARNELL  THE AUSTRALIAN  MAY 01, 2014 12:00AM

ANTIBIOTIC resistance has created superbugs that are a serious threat to every community around the globe, the World Health Organisation has warned.

**The Age**
Deadly stomach bug has arrived
May 27, 2010

**WHO**
WHO sounds alarm on widespread 'superbug' infections
Kim Painter, Special for USA TODAY  11:19 a.m. EDT April 30, 2014
Why should you think about AMR?

**Evolving bugs**
- Every time antimicrobials are used
- Happens in the target organism and "innocent by-stander" organism
- Use in one person effects use in others

**No new drugs**
- The pipeline is dry
- Bugs develop resistance faster than humans can develop drugs
Time line of the rapid rate of resistance to antibiotics

Modified with permission of LA Pray. 2008

Australian Commission on Safety and Quality in Health Care (2010), Windows into Safety and Quality in Health Care 2010, ACSQHC, Sydney

Note: Some of the dates are estimates only.
Antimicrobial Stewardship (AMS)
One solution

Utilise a range of strategies to:

- Integrate best use of antimicrobials into practice through promoting the judicious, safe, and effective use of antimicrobial agents
- Minimise the potential for selecting resistant organisms
- Improve patient outcomes
- Enhance safety and quality of care
Antimicrobial Stewardship (AMS)

One solution

AMS programs have demonstrated:

- Overall reductions in antimicrobial use by 22-36% \(^1\)
- Improved appropriateness of use \(^1, 2\)
- Reduced incidence of nosocomial CDI \(^3\)
- Improved patient outcomes \(^4\)
- Savings of $US 200K – 900K p.a \(^1\)

2. Owens R. Diag Micro and Inf Dis 2008
4. Drew R. J Managed Care Pharmacy 2009
The Commission’s road to AMS

2008 - AMS Forum

2009 - Establishment of the AMS Advisory Committee

2011 - AMS Forum

2011 - Publication “AMS In Australian Hospitals 2011”

2012 - Prescribing Modules with NPS MedicineWise

2012 - Establishment of the AMS Jurisdiction Network

2012 - Antibiotic Awareness Week
The National Safety and Quality Health Service (NSQHS) Standards

2013 saw the implementation of these Standards
AMS Criterion 3.14

<table>
<thead>
<tr>
<th>3.14.1</th>
<th>An AMS program in place</th>
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<tbody>
<tr>
<td>3.14.2</td>
<td>The clinical workforce prescribing antimicrobials has access to endorsed therapeutic guidelines on antimicrobial usage</td>
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<tr>
<td>3.14.3</td>
<td>Monitoring of antimicrobial usage and resistance is undertaken</td>
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<td>3.14.4</td>
<td>Action is taken to improve the effectiveness of antimicrobial stewardship</td>
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Supporting implementation
Supporting implementation

19 interactive workshops:

- Background, governance, working with clinical leaders
- Getting started, conducting a gap analysis, risk assessment and prioritising areas for action
- AMS – how to implement and sustain a program, what data to collect to evaluate effectiveness
- Group work with practical case studies
What were the results?

388 participants
351 (90%) completed evaluation forms
210 (60%) implementing Standard 3 as a team
91 (26%) implementing Standard 3 solo
310 (88%) provided with practical ideas and strategies
306 (87%) would recommend the workshop to colleagues
What three aspects were most useful?

- The practical session assessing risk was most useful.
- The session on AMS was rated the second most useful aspect.

Bar chart showing the number of responses for different aspects:
- Background: 73
- Networking: 65
- Governance: 75
- Risk assessment: 114
- AMS: 227
- Prioritising: 165
- Other: 32
- No response: 26
Workshop feedback

• “Like the emphasis that implementing AMS is not up to the ICP alone”
• “We don’t prescribe antibiotics very much so AMS is not relevant”
• “We don’t have ID, micro or pharmacy on site”
• “Still feel overwhelmed as to how to engage clinicians and obtain executive level buy-in”
• “This should be essential for executives in our hospital”
What have we learned?

Commitment

Themes

- Engagement with governance and clinical leaders
- Specialist resources to support stewardship
- Responsibility to lead AMS
- Understanding the wider impact of inappropriate antimicrobial use
- Technical aspects – what data and how to collect
- Practical tools to support implementation
Resisting AMR – what next for AMS?
And what next for the Commission

Over the next 6 to 12 months...

- Continued collaboration
- Education to assist with appropriate prescribing
- Tool kit to assist with implementation of AMS
  - AMS Risk-Assessment Matrix
  - AMS Self-Assessment Tool
  - “OSSIE” Tool Kit for AMS
- Supporting the National Antimicrobial Prescribing Survey (NAPS)
- Coordination Antibiotic Awareness Week (AAW) 2014
Resisting AMR – what next for AMS?
Tackling AMR at the patient level

Clinical Care Standard for AMS

9 statements describing best practice for managing a person who has, or is suspected of having a bacterial infection, regardless of setting

- **For patients:** describes the care they can expect to receive
- **For clinicians:** provides support in the delivery of care the patient is expecting
- **For health services:** systems are in place to support clinicians in providing the care that is expected
Resisting AMR – what next for AMS?
Clinical Care Standard for AMS

Supported by:
- Consumer Fact Sheet
- Clinician Fact Sheet
- Quality measures – a guide

Consultation and approval process:
- Consultation period Dec 2013 – Mar 2014
- Currently reviewing feedback and revising draft
- Internal approval and final draft to Health Ministers late 2014
The A.U.R.A Surveillance Project

Antimicrobial Use and Resistance in Australia

• Funded by the Commonwealth

• Coordinating the development of national antimicrobial usage and resistance surveillance system

• A three year project supporting a range of AMR containment strategies, including appropriate antibiotic use

Are we making progress?

Summer 2014 edition of “The Australian Hospital Healthcare Bulletin” reported:

“As of August 2013,

- **254 health services had been assessed; 112 had their accreditation status confirmed. The remaining health services were finalising the process**

Now:

- **737 health services were assessed in 2013, all had their accreditation status confirmed as of 30 April 2014**
The future...
Thank you

Acknowledgements:
Sue Greig – Senior Project Officer, HAI Program, ACSQHC
Alice Bhasale – Senior Project Officer, Implementation Support, ACSQHC
Rosio Cordova – Program Manager, Clinical Care Standards, ACSQHC
Questions?
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