Symposium: Clinical practice: AN AUSTRALIAN PERSPECTIVE

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With Thanks To Andrew Matthews general manager workforce transformation SHPA

Objective

• This workshop will address how to:
  • Transform education of pharmacists to better prepare them for a clinical role
  • From the perspective of a director of pharmacy in a large teaching hospital in Australia who requires his clinical workforce to demonstrate adding value by optimising patient care
Brisbane, Australia

Royal Brisbane and Women’s Hospital
Queensland, Australia
Reduced Risks and Optimise medicine Outcomes

Clinical Pharmacy  
Bond Pharmacotherapy 2007

Admission medication history
Medication Reconciliation
Formulary/ prescribing protocols
Prospective review
Participation in ward rounds
ADR management
Medication handover

Drivers:
Standards
Policies, Procedures
resources

Optimising Therapeutic outcomes and clinical care

Individualised Training & Development:

New models of care
Electronic systems

Drivers:
Standards
Policies, Procedures
resources

Workforce Development
Service Re-design
Drivers of pharmacy transformation
- Social, political, economic
- Goal: to optimise therapeutic + health outcomes
- Need: Competent and capable workforce
- Adaptable and transferrable knowledge and skills
- Standards, policies procedures, guidelines
- Consistent, transparent education and training
- Professional recognition by patients and peers

Optimising Therapeutic outcomes and clinical care

Drivers:
- Standards
- Policies, Procedures
- resources

Individualised Training & Development:

Workforce Development

Service Re-design

New models of care
Electronic systems
Medication management systems and pharmacists’ roles are changing

FROM:
Traditional Dispensing

AND
error prone handwritten prescriptions

From Manual To Electronic Era

The new dispenser
Error rate 0.001% of items

Electronic prescribing
A Perfect Storm

Balance: targets vs patient care

Clinical Pharmacists and Inpatient Medical Care

A Systematic Review

Peter J. Kaboli, MD, MS; Angela B. Hoth, PharmD; Brad J. McClimon, MD, PharmD; Jeffrey L. Schnipper, MD, MPH

Perioperative medication management: expanding the role of the predmission clinic pharmacist in a single centre, randomised controlled trial of collaborative prescribing

Pharmacist Participation on Physician Rounds and Adverse Drug Events in the Intensive Care Unit

Lucian L. Leape, MD
David J. Cullen, MD

Context: Pharmacist review of medication orders in the intensive care unit (ICU) has been shown to prevent errors, and pharmacist consultation has reduced drug costs.
Clinical Teams- where is the pharmacist?

Working as part of the clinical Team to optimise patient’s medication
Ambulatory/ out patient clinics roles

- Home and GP based Medication review
- Surgical pre assessment
- Heart failure
- Hepatitis
- Smoking cessation
- Epilepsy
- Rheumatology

Optimising Therapeutic outcomes and clinical care

**Individualised Training & Development:**
- Evaluation, Feedback, plan

**Drivers:**
- Standards
- Policies, Procedures
- resources

**Workforce Development**

**Service Re-design**

**New models of care**
- Electronic systems
Workforce Numbers vs Performance

Capacity
Workforce Numbers
Ie Number pharmacist per patient episode

VS

Capability
Consistent competent performance

It is WHAT pharmacists do and HOW well they do it NOT just More pharmacist

ADR history documentation for 161 pts without a pharmacy review,
ADR history documentation with a pharmacy review

Mrs G, 82 yr lady, – On admission

- RACF, via DEM
- Presenting complaint: back pain
- Past Medical History:
  - Hypertension
  - Peptic Ulcer
  - Reflux oesophagitis
  - Osteoporosis
  - Depression

Medication History taken by pharmacist on admission:
- Metoptolol
- Pantoprazole
- Fluoxetine
- Frusemide
- Thyroxine
- Potassium
- Insulin
- Clopidogrel
Mrs G, 82 yr lady: After Discharge

- **RACF, via DEM**
- **Presenting complaint:** back pain
- **Past Medical History:**
  - Hypertension
  - Peptic Ulcer
  - Reflux oesophagitis
  - Osteoporosis
  - Depression

**Medication History taken by pharmacist on admission:**
- Metoptolol
- Pantoprazole
- Fluoxetine
- Frusemide X
- Thyroxine X
- Potassium X
- Insulin X
- Clopidogrel X

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**BUT THESE MEDICATIONS WERE FOR A DIFFERENT PATIENT!**

Pharmacist did not:
- Use Emergency notes
- Use previous discharge medication list
- Confirm with community Dr or pharmacists
- Did not reconcile Problems VS medicines

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**The Competency iceberg**

**Need Effective and persistent behaviour**

- Knowledge
- Skills
- Abilities
- Values
- Attitudes
The majority of species can learn competences...

What will guide pharmacist development?
Competency Frameworks

- A Global Competency Framework
- Assembly of competencies
- Be used to identify what do well and where gaps exist
- To help guide needs based learning and pharmacy practitioners

Why use competency frameworks to guide evaluation and feedback?

A controlled study of the General Level framework: Results of the South of England Competency study
Antoniou S, Webb D, McRobbie D Davies JG, Bates I

![Graph showing the comparison of intervention and non-intervention over months.]

- Self + peer Evaluation + feedback
- No Self Evaluation No feedback
Pre-registration/interns performance in OSCE2006 \( n=21 \)

1 week induction Post uni

10 years ago 18/21 interns became Less competent during their pre registration year
Hospital intern training  
Supported by Intern level Framework

• Performance based competency framework
• Complements Intern Training Program
• Log of activities and competencies  
  • History taking
  • Problem identification and resolution
  • Counseling
• Self and peer evaluation

Number of OSCE stations at the end of induction and end of intern year 2009 (N=22)

16/22 interns became more competent during their pre registration year post introduction ILF

Post Induction 10 months
Observation and feedback in the workplace
Views on baseline n=55/66 pharmacists
SHPA Residency from 2017...

- Lack existing formal, structured experiential training program
  - Barrier to expansion of pharmacists roles and scopes
- Accredited 2 year structured residency program
- Underpinned by Clinical Competency Framework (Clin CAT)

SHPA Residency: Experiential learning

<table>
<thead>
<tr>
<th>Jan-June</th>
<th>Jul - Dec</th>
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<tbody>
<tr>
<td>Intern year</td>
<td></td>
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<tr>
<td>Year 1 Medical</td>
<td>Dispensary, medicine information</td>
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<tr>
<td>Year 2 Surgical</td>
<td>Sub Specialities</td>
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## SHPA Residency: Evaluation and Feedback

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<tr>
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<th>Jan-June</th>
<th>Jul - Dec</th>
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<tbody>
<tr>
<td><strong>ClinCAT Framework</strong></td>
<td>&lt; 2 months</td>
<td>&lt; 2 months</td>
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<tr>
<td><strong>Case Base Discussion</strong></td>
<td>1 per rotation</td>
<td>1 per rotation</td>
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<tr>
<td><strong>Mini Clinical Exam</strong></td>
<td>1 x &gt;3 months</td>
<td>1 x &gt;3 months</td>
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<tr>
<td><strong>360° Assessment</strong></td>
<td></td>
<td>1 per 12 month</td>
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<td><strong>Portfolio</strong></td>
<td>Evaluations, education, supervision, audits, meetings</td>
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### Professional Journey

**Level of knowledge, skills, experience (competence)**

- Advanced Pharmacy Practice Framework Domains:
  - Expert Professional Practice
  - Professional & Ethical Practice
  - Communication, Collaboration & Teamwork
  - Leadership & Management
  - Critical analysis, research & education

**Portfolio development & evaluation against Advanced Pharmacy Practice Framework**
Pharmacist Development

Advanced Level Pharmacist
Residency Pharmacist
Registered Pharmacist
Intern Pharmacist
Undergraduate Pharmacist

Recognised expert

Acquiring knowledge & skills

Role of Advanced practitioners

To lead development of all workforce
Sustainable Pharmacist workforce development

- Advanced Level Pharmacist
- Residency Pharmacist
- Registered Pharmacist
- Intern Pharmacist
- Undergrad Pharmacist

Acquiring knowledge & skills

Contributing Knowledge And skills

Research, Education, Leadership and management

“Specialist” generalist or focused advanced pharmacist

- Trainee in “Specialist” Practice area
- Day 1 Outcomes & early years
- Advanced in “specialist” Practice area
- “Advanced” Broad scope/Generalist

Increasing Level of knowledge, skills, experience (Competence)
Competency Domains of Advanced Level Framework

Expert Professional Practice

1. Domain: e.g. *Promote and contribute to the optimal use of medicines*

Network, Leadership, Influence

2. Domain: Communication, collaboration, teamwork

3. Domain: Leadership and Management

4. Domain: Professional and ethical practice

5. Domain: Critical analysis, research and education

Recognition and credentialing advanced practice

- 2015: Australia Pharmacy Council undertook a pilot of credentialing pharmacists against APPF
- Independent evaluation, feedback and recognition
- 43 pharmacists evaluated
- Currently in transition from APC to Professional bodies to seek a sustainable model
Summary

• Patients and providers expect competent workforce
• Improvement in patient care requires optimal pharmaceutical care
• Competency frameworks determine practice and form basis of a curriculum
• Evaluation and feedback against frameworks directs individuals life long learning and development

谢谢 (謝謝)
(Thank you)