



AUSTRALIAN COMMISSION ON  
SAFETY AND QUALITY IN HEALTHCARE



# The Case for Medication Reconciliation

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## ▶ Medicines and Patient Harm

- 2 – 3% of all hospital admissions medication related
- Up to 30% unplanned geriatric admissions associated with adverse medicines event
- Approx 190,000 admissions per year
- Estimated cost \$660m per year <sup>1</sup>

*1. Roughead E, Semple S, Aust and NZ Health Policy 2009*

# ▶ National Medication Scoping Study

- **45 recommendations for improving the safety and quality of medicines use nationally**
- **6 high priority recommendations for action by Commission**



NATIONAL MEDICATION SAFETY  
AND QUALITY SCOPING STUDY  
COMMITTEE REPORT

21 APRIL 2009

[http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/NIMC\\_006\\_Initiatives&Event](http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/NIMC_006_Initiatives&Event)



# ▶ National Medication Scoping Study

## Recommended Commission actions

### High Priority

- **Medication accuracy at transitions in care/medication reconciliation**
- Lead identification and development of standardisation initiatives
- Standards for user applied labels for medicines in hospitals
- Additional standard medication charts
  - Insulin, residential care, e-version for GPs in rural sector
- Guidance document on safe e-medication management (e-prescribing/administering) systems
  - Requirements, implementation, “look and feel”
- Share lessons nationally through safety alerts, bulletins

# ▶ National Medication Safety and Quality Scoping Study

## **Continuity of care**

- Key area for improving patient safety
- Interfaces of care prone to error
  - Over 50% of hospital medication errors occur at interfaces of care<sup>1</sup>
- Potential target for interventions to reduce medication error
- Recommendation 11: *Promote medication reconciliation at care transition points*

<sup>1</sup> Sullivan C, Gleason KM et al, J Nurs Care Qual 2005

## ▶ What is medication reconciliation ?

‘A process for obtaining and documenting a complete and accurate list of a patient’s current medicines upon admission and comparing this list to the prescriber’s admission, transfer and/or discharge orders to identify and resolve discrepancies.’

*Santell JP Jt Comm, J Qual Patient Safety, 2006*

# ► Why medication reconciliation ?

## Errors on admission

- 10 – 67% medication histories have at least one error <sup>1</sup>
- 85% of prescribing errors at transition of care originate in the medication history and carry through to inpatient orders <sup>2</sup>
- Up to one third of these errors have potential to cause harm <sup>3</sup>
- Patients  $\geq 65$  years over 2 times more likely to require treatment/monitoring following an medication error on transition of care <sup>2</sup>

1. Tam VC, Knowles SR et al, CMAJ 2005

2. Gleason KM, McDaniel MR et al, J Gen Intern Med Feb 2010

3. Cornish PL, Knowles SR, Archives Int Med 2005

# ► Why medication reconciliation ?

## At discharge (Aust data)

- 12% of patients have an error in their discharge prescription<sup>1</sup>
- 15% of discharge medications have discrepancies when reconciled with the medication chart <sup>2</sup>
- Readmission 2.3 times more likely if  $\geq 1$  medicines unintentionally omitted from discharge summary<sup>3</sup>

*1. Duguid MJ, Gibson M et al, J Pharm Pract Res 2002*

*2. Coombes et al, Aust J Hosp Pharm 2001*

*3. Stowasser, J Pharm Pract Res 2002*



# ► Why medication reconciliation ?

## Medication reconciliation reduces errors and adverse events

### On admission

- 50% decrease in no. patients with errors on admission
- > 50% decrease in no. patients with errors likely to cause possible or probable harm <sup>1</sup>

### Admission, transfer and discharge

- Errors reduced from 213 to 50 per 100 admissions <sup>2</sup>

1. Tam VE, Knowles SR et al CMAJ, 2005

2. Rozich JD, Rsear RK et al Jt Comm J Qual Saf, 2004

# ► Why medication reconciliation ?

## Reduces workload and rework

- Nursing time at admission ↓ >20 mins per pt
- Pharmacists time in patient discharge ↓ > 40 mins per pt <sup>1</sup>

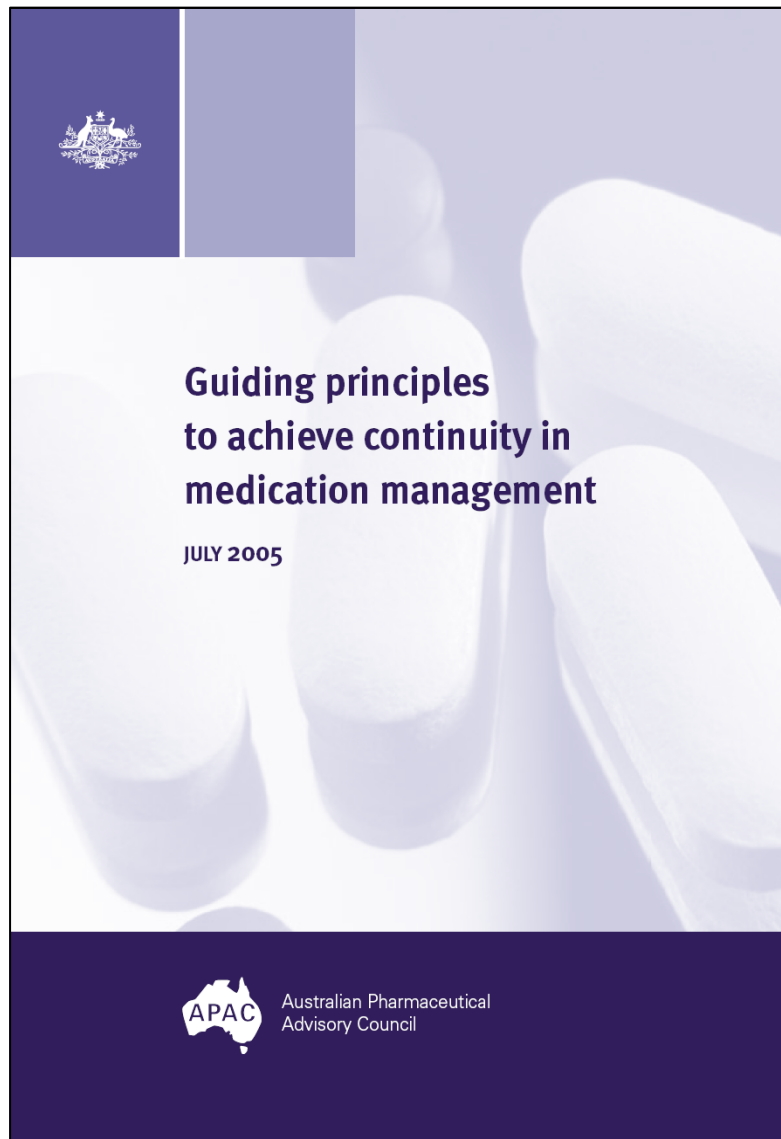
## Cost effective

- Medication reconciliation interventions at admission cost effective
- Pharmacist-led reconciliation intervention had highest expected net benefits
- ***Medication reconciliation cost effective use of NHS resources*** <sup>2</sup>

1. Rozich JD, Regar RK, Jt Comm J Qual Saf. 2004

2. Karnon, J Eval Clin Pract 2009

# ▶ Aligns with National Medicines Policy



## Guiding Principle 4 Accurate medication history

**An accurate and complete medication history should be obtained and documented at the time of presentation or admission, or as early as possible in the episode of care.**

## Guiding Principle 6 Medication Action Plan

**A Medication Action Plan should:**

- **be developed with the consumer and relevant health care professionals as early as possible in the episode of care**
- **form an integral part of care planning for the consumer**
- **be reviewed during the episode of care and before transfer.**

## Guiding Principle 9 Communicating medicines information

**When a consumer is transferred to another episode of care, the transferring health care provider(s) should supply comprehensive, complete and accurate information to the health care provider(s) responsible for continuing the consumer's medication management in accordance with their Medication Action Plan.**

# ▶ International Medication Reconciliation Activities

The Joint Commission (US) – National Patient Safety Goal & Accreditation requirement

- Goal 8 ‘Accurately and completely reconcile medications across the continuum of care’

Canadian Patient Safety Institute – SAFER HEALTHCARE NOW!

- Medication reconciliation collaborative (500 sites)

Institute for Health Care Improvement (IHI)

- One of twelve initiatives in 5 million Lives Campaign

2006 WHO Patient Safety Alliance High 5s initiative

- Assuring medication accuracy at transitions of care

# ▶ What is the Commission doing?

## **Medication Continuity Expert Advisory Group**

### Role

- Advise on conduct of High 5s Medication Reconciliation project
- Advise on national strategies for improving continuity of medication management
- Advise on implementation strategies
  - includes National Medication Management Plan

# ▶ What is the Commission doing?

## High 5s Project

- 5 patients safety solutions, 5 countries over 5 years.
- ASQCHC leading clinical handover
- Lead technical agency for Australian High 5s project:  
*Assuring Medication Accuracy at Transitions of Care*  
through process of medication reconciliation

# ▶ High 5s Medication Reconciliation Project

## **Aim**

- Test the feasibility of implementing a standardised medication reconciliation protocol (SOP)
- Determine effect on specified patient safety outcomes
- Publish results and refined SOPs for general implementation

## **Scope of project – Phase 1**

- Patients  $\geq$  65 years of age
- Admitted to hospital through ED
- Reconciliation on admission

SOP aligns with APAC Guiding Principles to achieve continuity of medication management

# ▶ National Safety and Quality Standards

## **Medication Safety Standard Criteria relevant to medication reconciliation**

### **B. Documentation of patient information**

The clinical workforce accurately records a patient's medication history and it is available throughout the episode of care.

*Includes reviewing the patients' current medication orders against their medication history and reconciling any discrepancies.*

### **E. Continuity of medication management**

The clinician provides a complete list of a patient's medicines to the receiving clinician and patient when handing over care or changing medicines.



# ▶ Medication Reconciliation Resources

## **Toolkit**

- Educational materials
  - MATCH UP Medicines – Matching medicines at transitions of care
- National Medication Management Plan (MMP)
- MMP training material
- Admission history training resource
- Other support material

**WATCH**

**UP medicines**  
Medication reconciliation prevents harm.

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**Medrec**  
matching medicines at transitions of care