

# Continuity of Medication Management in Central Australia

**An audit from Hospital Discharge to Primary Care**

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# Continuity of Medication Management

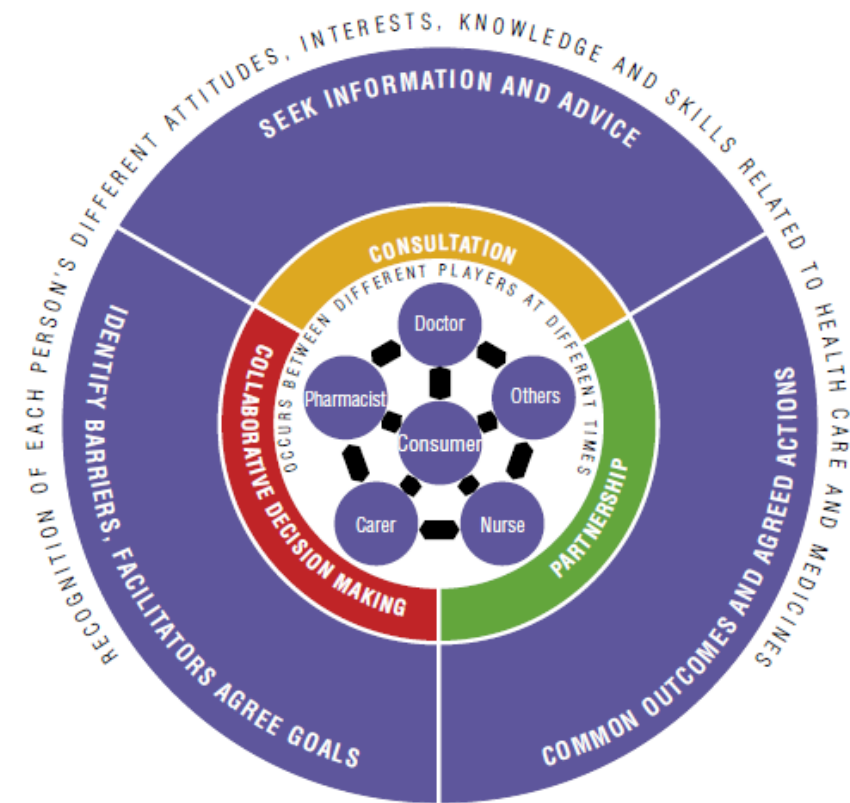
- Small Pilot study in a rural hospital
- Anecdotal reports from local pharmacists that the interface between hospital and primary care was difficult
  - Most people had changes to long term medicines
  - Primary care providers especially pharmacists not informed of changes or reasons for change
  - Consumers confused about what medicines to take
- First step – *what is actually happening?*
- Approved by Central Australian Human Research Ethics Committee

# Guiding principles to achieve continuity in medication management.

Australian Pharmaceutical Advisory Council (2005)

- Continuity

- ‘...consistent and standard systems approach across all health care settings and health care providers’
- ‘...each health care provider has policies and mechanisms in place to collect and maintain full and accurate information about consumers’ medicines, and that the information is available at the point of care’



# Post-discharge drug related problems (DRP)

- DRP's are common in the period following discharge
- An Australian study of patients discharged from a cardiology unit identified 93.3% of patients with DRP's post discharge with most common problem cited as 'uncertainty of the aim of the drug' (32%) (Elliott et al, 2010)
- Literature Review of DRP in older Australians (Elliott & Booth, 2014)
  - 50-66% older people take 5 or more medicines
  - Up to 75% of GP generated medicines lists were inaccurate
  - Admission to hospital leads to increased complexity of regimens on discharge, but that these can often be simplified
  - In 152 patients reviewed post-discharge, 19% were suffering an adverse drug reaction

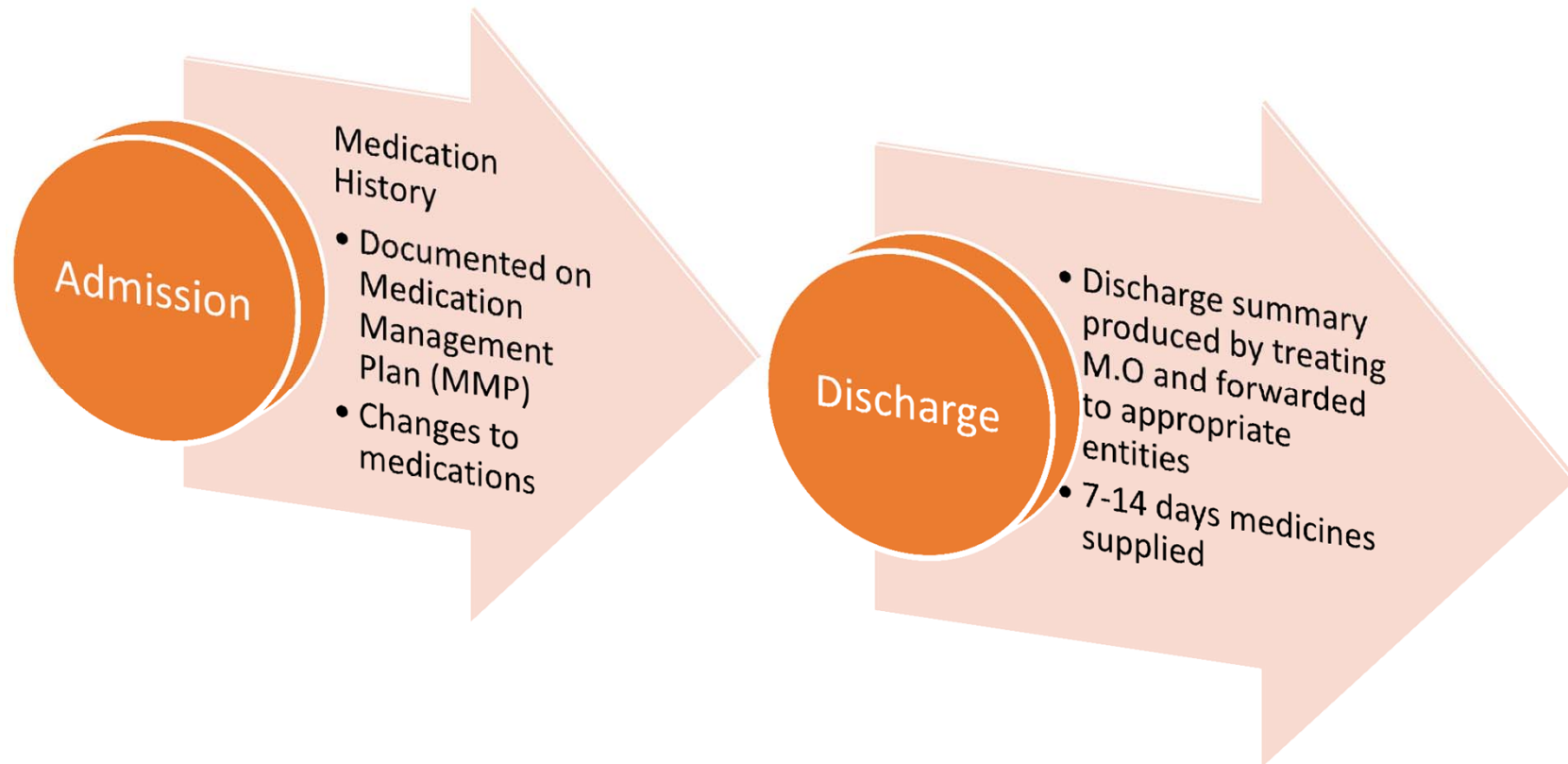


# Continuity of Care

- Analysis of >100,000 Veteran Affairs Claims (Roughead et al, 2009)
- Within 30 days of discharge:
  - 71% patients visited a GP
  - 86% patients had medicines dispensed from a community pharmacy
  - Median Time to first visit
    - 12 days for GP visit
    - 6 days for pharmacy visit



# General Procedure



# Research

- Purpose:
  - Assess the potential for error at the hospital to primary care interface
- Aim
  - To identify if alterations made to a patient's medication regimen in the hospital setting reflect what is dispensed in the community/ primary care setting after discharge in rural and remote Central Australia



# Methodology

- Retrospective chart audit & review of dispensing records
  - Conducted over a 5 week period (July – August 2013)
  - Obtained patients medication profiles on:
    - Admission
    - Discharge
    - 4-6 weeks post discharge





# Methodology

- Participants
  - Patients with 5 or more medications used to manage chronic diseases, identified from hospital discharge dispensing records
  - Excluded:
    - Renal Dialysis patients
    - Interstate visitors
    - Readmission within study timeframe
    - No dispensing records found during timeframe

# Methodology

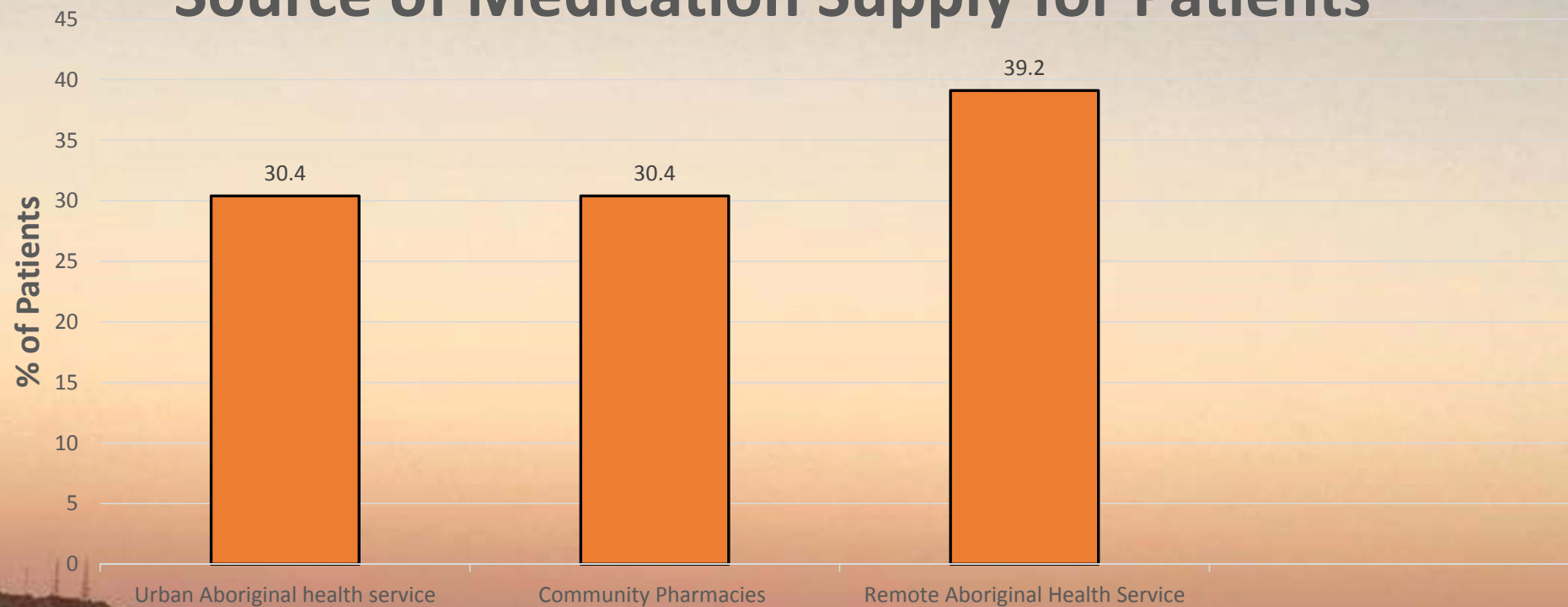
## **Primary outcome:**

- Discharge medications matched post-discharge dispensing records in community setting
  - Substitution of a hospital formulary drug, accepted as equivalent and variable dose items eg insulin were not classed as changes

## **Other factors recorded**

- Whether Medication Management Plan (MMP) was used
- If the discharge summary was available to primary care providers within 1 week (before discharge Rx finished)

# Source of Medication Supply for Patients



# Results

- 85 patient records retrospectively examined
- 57 patients after exclusions
  - Demographics
    - 61% patients resided in urban area
    - 39% patients resided in remote communities



# Results

- 98% (56 patients) had changes to their long term medications
- 40% (23 patients) of hospital discharge prescriptions matched dispensing history in community setting
- Of the 60% (34 patients) where discharge prescriptions were not continued, 3 patients were dispensed pre-admission medicines, 31 patients had other changes to their medicines.



# Results

- 28/57 (49%) patients had MMP conducted by a clinical pharmacist
  - No significant relationship was found between development of an MMP and study outcome
- 23/57 (40%) patients had their discharge summary forwarded to primary care health professional within 1 week.
  - No significant relationship was found between early discharge summary and study outcome
- No significant relationship was found between source of medication supply (urban AHS/community pharmacy/remote AHS) and study outcome

# Limitations of the study

- No exploration of whether changes made in hospital were appropriate
- No exploration of GP's decisions not to follow changes made in hospital



# Further Questions?

- Is a hospital admission a missed (or valuable) opportunity to review ongoing medicines?
- Can ensuring medicines review in primary care prevent hospital admissions?
- How to improve communication and collaboration between hospital and primary care?





# Can pharmacists play a greater role?

- Greater resources for review by a hospital clinical pharmacist through MMP?
- Broader medication review services in primary care?
- Access to discharge summaries to help patients to sort out their bag of medicines?



THANK YOU



# References

- Elliott, R. A. and J. C. Booth (2014). "Problems with medicine use in older Australians: a review of recent literature." Journal of Pharmacy Practice & Research **44**(4): 258-271.
- Ellitt, G. R., E. Engblom, P. Aslani, T. Westerlund and T. F. Chen (2010). "Drug related problems after discharge from an Australian teaching hospital." Pharmacy world & science **32**(5): 622-630.
- Roughead, E. E., L. M. Kalisch, E. N. Ramsay, P. Ryan and A. L. Gilbert (2011). "Continuity of care: when do patients visit community healthcare providers after leaving hospital?" Intern Med J **41**(9): 662-667.