

# “Kids aren’t on a lot of medications”: or are they?

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March 2010

Campus partners

# The Adult Picture

- 25% of prescribing errors occur during hospital admission due to incomplete medication histories<sup>1</sup>
- Admission medication discrepancies:
  - 54-80% of patients have at least one discrepancy<sup>2,3</sup>
  - Omission of medication account for 25-72% of discrepancies<sup>4,5</sup>
  - 15-78% of discrepancies are due to incorrect dosing information<sup>4,5</sup>
  - 33% have potential to cause moderate discomfort or clinical deterioration<sup>2</sup>
- Medication reconciliation is effective<sup>6,7,8,9</sup>

# Aren't children just little adults?

- No formal documented MR process
- SHPA standards<sup>10</sup> & APAC guidelines<sup>11</sup> not fulfilled
- Do children even need MR?
- Limited literature in the paediatric setting
- Aim to fill the void

# Fact Finding Mission aka The Study

## Two Questions:

- Do children need MR?
- Does MR reduce medication errors in kids?

## Aims:


- Quantify discrepancies
- Classify discrepancies
- Clinical Significance
- Evaluate MR process

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# Plan of Attack

- Two wards – general medical and surgical
- New Admission Medication History Form
- Multidisciplinary documented MR process
- 3 phase interventional study
  
- Unintentional vs intentional discrepancies
- Clinical significance – modified NCCMERP index<sup>12</sup>

# Admission Medication History Form



MRB91A



The **Royal Children's Hospital Melbourne**


## Admission Medication History

UR NUMBER \_\_\_\_\_

SURNAME \_\_\_\_\_

GIVEN NAME(S) \_\_\_\_\_

DATE OF BIRTH \_\_\_\_\_

AFFIX PATIENT LABEL HERE 

Admission Date: \_\_\_\_\_ Date: \_\_\_\_\_

No medications at home

Unable to obtain medication history Reason: \_\_\_\_\_

### Allergies and Adverse Drug Reactions

Nil known  Unknown

Drug	Reaction/Type/Date	Initials

### Admission History Checklist

Check if the patient is taking any of these medications:

- Prescription medicines
- Inhalers, puffers, sprays, sublingual or buccal medicines
- Oral contraceptives, hormone therapy
- Over-the-counter medicines
- Analgesics
- Laxatives
- Complementary medicines (e.g. vitamins, minerals or natural therapies)
- Topical medicines (e.g. creams, ointments, lotions, patches)
- Nose/ear/eye drops
- Pessaries/suppositories
- Injections
- Intermittent medicines (e.g. weekly or monthly)
- Recently completed courses of medicine
- Social or recreational drugs

Sign: \_\_\_\_\_ Print: \_\_\_\_\_ Date: \_\_\_\_\_

### Source of Medication History

Source	Confirmed by	Date
<input type="checkbox"/> Patient/Carer		
<input type="checkbox"/> Community Pharmacy		
<input type="checkbox"/> General Practitioner		
<input type="checkbox"/> Own medicines		
<input type="checkbox"/> Patient Medication List		
<input type="checkbox"/> Previous Admission		
<input type="checkbox"/> Hospital Pharmacy		
<input type="checkbox"/> Medical Records		

### Doctor's Plan Key

Continue – ✓    Change – Δ    Withhold – W    Cease – X

### Home Medications On Admission

Date	Medication – Generic name/strength/dosage form	Dose	Route	Frequency	Indication	Last taken (date & time)	Initial	Dr's plan

Admission Medication History MR 691/A

# “Kids aren’t on a lot of meds” Or are they?

- Average age 5.6 years
- 47% taking regular medications
- 1.3 medications per child
- Medications
  - 18% neurological medications
  - 15% gastrointestinal medications
  - 13% vitamins, minerals & electrolytes

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# Do kids actually need MR?

- 22% ≥ one unintentional discrepancy
- Types of discrepancies
  - 48% omission of drug
  - 41% wrong route
- Medication involved
  - Gastrointestinal 20%
  - Dermatological 18%
  - Neurological 15%
- Clinical Significance
  - 55% - potential to cause temporary patient harm
  - 7% - potential to cause permanent or life-threatening harm

# How does this compare to adults?

- Use of medication
  - 47% child
  - 81% adult<sup>13</sup>
- $\geq 1$  unintended medication discrepancy
  - 29% child
  - 40-65% adult
- Rate of discrepancies
  - 0.5 child
  - 0.9 adult

# Does a multidisciplinary MR process & form reduce discrepancies?

- ↑ number of discrepancies
- ↓ potential severity of discrepancies
  - 55% vs 49% - potential to cause temporary harm
  - 7% vs 0% - potential to cause permanent or life-threatening harm

# Lessons Learnt

- Children not immune
- Pharmacists are essential!
- Ingrain MR in to hospital process
- Leadership
- A slow process

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# The Way Forward

- Hospital wide implementation
- Continual evaluation
- Significant pharmacist involvement
- Close the loop

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# Children & MR

- Children need MR
- Not too different from adults
- Extra care needed with medication histories
  
- Don't forget the little people!

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