Medicines in Older People-
Some of the Key Issues

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Older Australians use lots of medicines

- Some of our published studies
  - 6.7 ± 3.8 115 subjects in retirement villages over 70 yrs
  - 5.8 ± 2.9 119 hostel residents over 80 yrs
  - 6.0 ± 3.0 602 hostel residents aged over 70 years
  - 4.4 ± 2.7 1705 community dwelling men over 70 yrs
  - 7.4 ± 3.5 500 nursing home residents aged over 65 yrs
  - 9.5 ± 3.4 100 patients admitted to hospital over 70 yrs

Many opportunities for high risk prescribing
Polypharmacy

Morgan et al, A national census of medicines use: a 24-hour snapshot of Australians aged 50 years and older. MJA 2012; 196: 50–53
Not just how much people are taking but what people are taking

“The peak use of antidepressants was in those aged 90–94 years”
Risk factors for Polypharmacy

- Old age
- Comorbidities
- Hospitalization
- Female
- Depression
- Number of doctors
- Main risk factor - doctor (6 fold variation)
The good these medications could be doing
Expectation of life
Australia 2007-9

At 65 years
Male: 18.7 yrs
Female: 22 yrs

At 80 years
Male: 8.4 yrs
Female: 10 yrs

Life expectancy (years)

Age

0 10 20 30 40 50 60 70 80 90 100

Females
Males

302.0.55.001 - ABS Life Tables, Australia, 2007-2009
What medicines are being taken?

<table>
<thead>
<tr>
<th>Medicine Class</th>
<th>% used in previous 24 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antihypertensives</td>
<td>65%</td>
</tr>
<tr>
<td>Anticoagulants, antithrombotics</td>
<td>51%</td>
</tr>
<tr>
<td>Lipid lowering agents</td>
<td>43%</td>
</tr>
<tr>
<td>Agents for gastric acidity, reflux and ulcers</td>
<td>33%</td>
</tr>
<tr>
<td>Natural marine and animal products</td>
<td>27%</td>
</tr>
<tr>
<td>Simple analgesics and antipyretics</td>
<td>28%</td>
</tr>
<tr>
<td>Agents affecting calcium and bone metabolism</td>
<td>25%</td>
</tr>
</tbody>
</table>

Morgan et al, A national census of medicines use: a 24-hour snapshot of Australians aged 50 years and older. MJA 2012; 196: 50–53
Older People in trials

• Only 3% of randomized, controlled trials and 1% of meta-analyses which are published, include people over 65 years

Levels of Evidence

- evidence from clinical trials on “older frail people”
  – but these are hard to find
- evidence from clinical trials on “older people”
- evidence from clinical trials on “younger people”
- observational epidemiology
- “N of 1” trials
- Logical interpretation of pathophysiology
- Learn from trainers/mentors
we take evidence from younger people with single disease and apply it to older people with multiple diseases
Guidelines and co-morbidities

- a hypothetical 79-year-old woman with chronic obstructive pulmonary disease, type 2 diabetes, osteoporosis, hypertension, and osteoarthritis

If the relevant Clinical Practice Guidelines were followed, the hypothetical patient would be prescribed 12 medications (costing her $US406 per month) and a complicated non-pharmacological regimen.

Boyd CM et al. Clinical Practice Guidelines and Quality of Care for Older Patients With Multiple Comorbid Diseases. JAMA Aug 2005
Older People are the most variable of all groups
Some of the problems
Hospital admissions 2° to Adverse Drug Reactions

Burgess et al
MJA 2005
biggest increase
is CV
edications
>20% of AEs >
80 yrs
High risk prescribing in older people

- Polypharmacy
- Potentially inappropriate medications eg Beers criteria, PRISCUS list
- Interacting drug pairs
- Drug-Disease interactions

- Adverse Drug Reactions
- Mortality and hospitalization
- Geriatric outcomes
  - Falls
  - Cognition
  - Institutionalization
Residential care
Families count cost of dementia drugs prescriptions

Up to 6,000 elderly people could be dying prematurely each year because of widespread over-prescription of anti-psychotic drugs to dementia patients in nursing homes.

Transcript
Medication list on admission

- Aspirin 100mg daily
- Methadone 10mg bd
- Dothiepin 50mg nocte
- Irbesartan/HCT 300/12.5 one daily
- Metoprolol 50mg bd
- Diazepam 5mg nocte
- Metoclopramide 10mg tds
- B12 injection monthly
- Amlodipine 5mg mane
- Liquifilm tears eye drops
- Fentanyl patch 37.5mcg/h
- Sertraline 50mg daily
- Carbidopa/levodopa 100/25 2 tds
- Panadol Osteo 2 tds
- Cholecalciferol 2000IU daily
- Multivitamin
- Diphenoxylate/atropine 2.5mg/25microgram 2 tds
- Omeprazole 20mg bd
- Gabapentin 300mg tds
- Oxycodone 5mg PRN
- Diazepam 5mg PRN max 3/day
- Temazepam 10mg PRN nocte
- Panadol Osteo 2 PRN nocte
Quality Use of Medicines

Partnership approach

“Better health through quality use of medicines”
SIR... THE BALDNESS PILL IS NOT A SUPPOSITORY.
An overview on the upcoming therapeutic topic ‘Older and Wiser: Promoting Safe Use of Medicines in Older People’

- Quality use of medicines
- Target both prescribers and users
- Peer education program in medicine management
- work with consumers, healthcare professionals, government and industry
What do the consumers want?
How do they see it?
People’s Attitudes, Beliefs, and Experiences Regarding Polypharmacy and Willingness to Deprescribe

Emily Reeve, BPharm Hons,* † Michael D. Wiese, PhD,* Ivanka Hendrix, PhD,* Michael S. Roberts, PhD, DSC,*** † and Sepehr Shakib, MB, BS, PhD†

JAGS: 2013

“I feel that I am taking a large number of medications” – 73%

“I feel that I may be taking one or more medications that I no longer need” -18%

Other studies have suggested people less willing to accept reduction of Benzos and Opioids
A Volunteer Peer Education Program in Medicine Management

*Health Promotion Service for Older People, Combined Pensioners and Superannuants Association of NSW Inc. (CPSA)*
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