Deprescribing: optimising medical therapy for frail older people

Living Well Longer: Research in Ageing in the Illawarra Health and Medical Research Institute, March 2013

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Clinical trials of medications have systematically excluded the frail elderly.

Do our frail patients look like these “Tourists”?
What is our evidence base for medication use in those who are frail?

Poor!

› Few studies

› Many “old” medicines were tested in the era of a common 65 year old age limit

› Many “new” medicines have been tested conservatively in the best possible population, thus excluding the frail

› So are we operating in a complete vacuum?
Treatment effects in old age

- Treatment directions rarely change with increasing age.
  - Treatments that are beneficial in younger people are generally beneficial in older people.

- The relative risk reductions of effective treatments generally reduce with increasing age and frailty, as comorbidities increase risks and “noise”.

- Absolute risk reductions often increase in old age due to greater risks of poor outcome.

- By extrapolating research involving younger “robust” adults, we try and sensibly treat our frailer patients.
Large absolute increase in the numbers of the frail elderly

Frailty will increasingly dominate medicine

With every medical success story, we add to the queue of potential frail elderly in society
The paradigm maintains that if the average age at first disability and morbidity is postponed, and if this postponement is greater than increases in life expectancy, then cumulative lifetime morbidity will decrease…..compressed before eventual death.

Fries JF Ann Intern Med 2003; 139: 455-459
What are our goals of treatment with medication?

Aged Care Facility Residents

› Symptomatic relief
  - Treatment of heart failure
  - Analgesia
  - Control of inflammation e.g. rheumatoid treatment
  - Prevention of unpleasant infections for residents and the wider community e.g. flu vaccine

› Cure

› Prolonging life
  - Prophylactic medications such as aspirin, statins, blood pressure tablets
What are the causes of death in nursing home residents?

<table>
<thead>
<tr>
<th>Corrected cause of death</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infections</td>
<td>26</td>
</tr>
<tr>
<td>Multi-factorial (incl. dementia)</td>
<td>22</td>
</tr>
<tr>
<td>Unknown/sudden</td>
<td>18</td>
</tr>
<tr>
<td>Cardiac</td>
<td>17</td>
</tr>
<tr>
<td>Cancers</td>
<td>6</td>
</tr>
<tr>
<td>Renal/GI/misc.</td>
<td>6</td>
</tr>
<tr>
<td>Stroke</td>
<td>5</td>
</tr>
</tbody>
</table>

Medication use in aged care facilities

Increased risk of adverse drug reactions:

› Polypharmacy
› Multiple prescribers
› Low ratio of nurses

Polypharmacy common:
› 90% of those with dementia in Aged Care Facilities in WA were on ≥ 5 medications
› Mean of 9.8 medications per resident
› 50% had a potentially inappropriate prescription

Wilson et al Therapeutic Advances in Drug Safety 2010 1: 11
Patient Journeys for the Frail?

Vascular Medicine Clinic

Falls clinic

http://www.froedterthealth.org/upload/images/MFClinic.jpg

http://hga.com/sites/default/files/imagecache/ss_media_poster/images/media/steca234_sustain_2.jpg
Psychoactive medication withdrawal

Campbell et al
- Any psychoactive medication
- n = 93, mean age 75, community, 44 weeks
- Reduction in falls, 66% reduction in falls

Curran et al
- Benzodiazepine withdrawal
- n = 138, mean age 77, community, 24 weeks
- Cognitive performance benefits
- No difference in withdrawal/insomnia symptoms
Psychoactive medication withdrawal

Ballard et al

- Antipsychotic withdrawal
- n = 100, mean age 83, Nursing home, 3 months
- 70% successful withdrawal
- No difference between groups in agitation/behavioural scores
- Subgroup analysis (small numbers)
  - ↓ behav scores (baseline) = ↓ agitation
  - ↑ behav scores (baseline) = ↑ agitation
Clash of EBM

Is admission to an aged care facility a watershed that signals that medications have become too risky?

EBM: single agents effective in robust adults

The academic response should be to seek new evidence

EBM: Increasing risks of polypharmacy and medication that has never been tested in the frail elderly
Some suggested solutions (1)

Qualitative research to find out the views of key stakeholders

› Aged care facility residents and their families
› Aged care facility staff
› General Practitioners

Key partners

› Illawarra-Shoalhaven Medicare Local
› University of Wollongong (Professor Jan Potter)

Collaborative Project Funded by the Wicking Trust (The George Institute for Global Health)
Randomised controlled trial of “Deprescribing”

› Led by Christopher Etherton-Beer, University of Western Australia (UWA)
› Collaborative effort with the University of Sydney and George Institute for Global Health
› Funded by the NHMRC
› Primary aim to determine whether deprescribing is safe among older people living in residential aged care facilities (RACF)
Opinions

Positive
› Reduce healthcare costs (“Affordable Healthcare”)
› Opportunity costs can be realised
› “I’m on too many pills”
› “My Mother/Father/Cousin/Aunt is on too many pills”
› Reduce the risk of polypharmacy (adverse drug reactions)
› Simplify regimes
› Evidence that older people are overtreated

Negative
› Ageist
› “If you stop Mrs X’s statin and she dies of a heart attack it will be your fault”
› Euthanasia under a different name
› “But my doctor told me I had to take these for the rest of my life”
› Evidence that older people are undertreated
To better understand the important issues for stakeholders

- Residents (and relatives) and staff at Aged Care Facilities
- General Practitioners (Illawarra-Shoalhaven Medicare Local)

Aged Care Facilities

- Villa Maria Centre, Catholic Healthcare, Unanderra NSW
- Bupa Berry, Berry NSW
- Farmborough Aged Care Centre, Unanderra
- Elanora, Shellharbour City
What is known in this area?

Dutch GP Study

› Symptomatic treatment was considered straightforward

› Preventative medication considered very difficult
  - Noted the lack of evidence in the older populations

Schuling et al BMC Fam Pract 2012
Final Conclusions

› We all have a stake in this (for our elderly relatives and ourselves in old age)
› Consumer input can provide essential data in running a trial
› Need to prepare for a considerable increase in the absolute number of the frail elderly
› Need to invest in a new generation of trials

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