DE-PRESCRIBING IN ELDERRLY CANCER PATIENTS

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Geriatric Oncology Population
Implications?

Methods of care
Impacts on assessment of health status and on choices of therapies

Economic
Requires future planning by individuals and society
The ‘inverted pyramid’

Care for older cancer persons

Bioethical
Management of older population (cancer + other ailments)

Social
Impact on healthcare facilities and caregivers
Continuum of Palliative Cancer Care

Fig 2. Model of palliative cancer care.

Ferris FD. J Clinical Oncology 2009; 27:3052- 58
Questions to ponder on...

Do we treat the tumour?
Or the patient?

Since patient is nearing end-of-life, do we withdraw all the chronic medications?
If not, which drugs do we keep?

How do we define end-of-life?

What will the patient think?
What is de-prescribing?
What is prescribing?

- diagnose a problem
- make a therapeutic decision
- alter the natural history
- consider the risk associated with individual drugs
- consider the risk of the cumulative risk from multiple drugs due to pharmacokinetic and pharmacodynamics interactions

Scott IA. *JAMA Intern Med* 2015 Mar
What is prescribing?

- a positive, patient-centred intervention
- with inherent uncertainties
- requires shared decision making
- informed patient consent
- and close monitoring of effects

Scott IA. JAMA Intern Med 2015 Mar
What is de-prescribing?

✓ Diagnose a problem
✓ Make a therapeutic decision
✓ Alter the natural history
✓ Consider the risk associated with individual drugs
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What is de-prescribing?

✓ A positive, patient-centred intervention
✓ with inherent uncertainties
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✓ informed patient consent
✓ and close monitoring of effects

Scott IA. *JAMA Intern Med* 2015 Mar
What is De-prescribing?

De-prescribing is defined as the systematic process of identifying and discontinuing drugs in instances in which existing or potential harms outweigh existing or potential benefits within the context of an individual patient’s care goals, current level of functioning, life expectancy, values, and preferences.

Scott IA. *JAMA Intern Med* 2015 Mar
**5-Step Deprescribing Process**

1. **Step 1**: Perform a comprehensive medication-indication reconciliation.

2. **Step 2**: Consider overall risk of drug-induced harm.

3. **Step 3**: Assess each medication for eligibility to be discontinued.

4. **Step 4**: Prioritise medications for discontinuation.

5. **Step 5**: Implement drug discontinuation plan and monitor adverse withdrawal effects.

JAMA Intern Med. 2015;175(5):827-34.
5-Step Deprescribing Process

Step 1: Perform a comprehensive medication-indication reconciliation

- Include prescription and non-prescription drugs
- Document indication for each drug
- Identify ADRs and non-compliance
Step 2: Consider overall risk of drug-induced harm

- **Drug factors**
  - Number of drugs
  - History of toxicity/ADRs
  - Use tools e.g., BEERS list, STOPP criteria

- **Patient factors**
  - Age
  - Multiple comorbidities
  - Multiple prescribers

JAMA Intern Med. 2015;175(5):827-34.
5-Step Deprescribing Process

Step 3: Assess each medication for eligibility to be discontinued

- Jointly consider life expectancy and treatment goals
- Identify medications used for
  - Unconfirmed diagnosis
  - Confirmed diagnosis but no evidence for choice of treatment
  - Counteracting ADR of other medications

JAMA Intern Med. 2015;175(5):827-34.
5-Step Deprescribing Process

Step 4: **Prioritise medications for discontinuation**
- Discontinue medication with greatest harm and least benefit first
- Taper dose of medications that cause withdrawal
- Ensure patient/caregiver is comfortable with decision
- Discontinue one at a time

JAMA Intern Med. 2015;175(5):827-34.
5-Step Deprescribing Process

Step 5: Implement drug discontinuation plan and monitor adverse withdrawal effects

- Monitor for adverse withdrawal reactions or return of symptoms
- Counsel patient/caregiver on steps to take
- Implement non-pharmacological measures
- Document process and outcome, communicate to other healthcare providers

JAMA Intern Med. 2015;175(5):827-34.
Figure. Algorithm for Deciding Order and Mode in Which Drug Use Could Be Discontinued

1. No benefit
   Significant toxicity OR no indication OR obvious contraindication OR cascade prescribing?
   → Yes
   → No

2. Harm outweighs benefit
   Adverse effects outweigh symptomatic effect or potential future benefits?
   → Yes
   → No
   → Withdrawal symptoms or disease recurrence likely if drug therapy discontinued?
   → Yes
   → Taper dose and monitor for adverse drug withdrawal effects
   → No
   → Symptoms stable or nonexistent?
   → Yes
   → Restart drug therapy
   → No
   → Discontinue drug therapy

3. Symptom or disease drugs
   Symptoms stable or nonexistent?
   → Yes
   → Taper dose and monitor for adverse drug withdrawal effects
   → No
   → Continue drug therapy

4. Preventive drugs
   Potential benefit unlikely to be realized because of limited life expectancy?
   → Yes
   → Restart drug therapy
   → No
   → Continue drug therapy

Scott IA. JAMA Intern Med 2015 Mar
Instances when de-prescribing can be considered

- presenting with a new symptom or clinical syndrome suggestive of adverse drug effects;
- manifesting advanced or end-stage disease, terminal illness, dementia, extreme frailty, or full dependence on others for all care;
- receiving high-risk drugs or combinations;
- receiving preventive drugs for scenarios associated with no increased disease risk despite drug cessation

Scott IA. JAMA Intern Med 2015 Mar
Barriers to de-prescribing

- High levels of clinical complexity
- Limited consultation time
- Fragmented care among multiple prescribers
- Incomplete information (on past rationales for, and patient tolerance of, drugs)
- Ambiguous or changing care goals
- Uncertainty about the benefits & harms of continuing & discontinuing specific drugs
- Community & professional attitudes toward more rather than less use of drugs
- Fear of adverse effects

Scott IA. *JAMA Intern Med* 2015 Mar
De-prescribing in End-of-Life
Case Vignette

A 68 year old woman with extensive small cell lung cancer & rapid weight loss also has long term mild hypertension with no evidence of end organ damage. What would you do about her antihypertensive treatment?

a) Stop drug treatment because she has a terminal illness
b) Continue the drugs because you would not want her blood pressure to get worse (and the conversation about stopping them may be difficult because last year you told her she would be taking these drugs for the rest of her life)
c) Wait until she develops postural hypotension and then consider reducing her drugs
d) Reduce her drugs and watch carefully

Stevenson J. BMJ 2004; 329: 999-1012
To stop or not to stop?

✓ Metabolism
✓ Prognosis
✓ Pathophysiology of death
✓ Measure of benefit
✓ Aims of intervention
✓ Psychological concerns

Stevenson J. BMJ 2004; 329: 999-1012
<table>
<thead>
<tr>
<th>Therapeutic benefit in context of prognosis</th>
<th>Prevention strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tertiary (disease with symptoms)</td>
</tr>
<tr>
<td>Potential for short term complications requiring management until death. Independent of prognosis eg glucose lowering drugs</td>
<td>Inflammatory arthritis</td>
</tr>
<tr>
<td>Long term benefits at population level. Ongoing therapy unnecessary in most with shortened life expectancy. Some short term benefits need consideration eg antihypertensive drugs</td>
<td>Pulmonary rehabilitation in chronic obstructive airways disease</td>
</tr>
<tr>
<td>Long term benefits at population level. Little short or intermediate term risk of stopping eg cholesterol lowering drugs</td>
<td>Osteoporosis</td>
</tr>
</tbody>
</table>

**Key**

- Treatment likely to be changed later and less in the course of life limiting illness
- Treatment likely to be changed earlier and more in the course of life limiting illness

Factors influencing the likelihood of continuing treatment for medical comorbidities in patients with life limiting illness, and examples of conditions in each category

Stevenson J. BMJ 2004; 329: 999-1012
Challenges for deprecribing in end-of-life

Guidelines applicable to general elderly populations are not directly transferrable

Predicting the time of ‘shift’

General practitioner? Oncologist? Other specialist?

How do you explain end of life to patients?

Conceptual Frameworks

Consider factors such as:
✓ Remaining life- expectancy
✓ Goals of care
✓ Time to benefit (of meds)

Currow DC et al. Arch Intern Med 2006; 166(21): 2404
Recommendations to support De-prescribing

1. Shared decision-making in also about prescribing medications
2. Not prescribing a medication should be presented as a reasonable alternative for patients late in life, when appropriate
3. Deprescribing is a part of prescribing
4. Prescribers have to embrace uncertainty
5. Difficult discussions now will simplify difficult decisions in the future

## OncPal De-prescribing Guideline in end-of-life care

<table>
<thead>
<tr>
<th>Medication Class</th>
<th>Medication</th>
<th>Considerations for limited benefit</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood</td>
<td>Aspirin</td>
<td>For 1(^\circ) prevention</td>
<td>Long term benefits at population level. Little short or intermediate term risk of stopping. Drugs for primary prevention have, in general, no place in the treatment of end-of-life patients since time-to-benefit usually exceeds life expectancy</td>
</tr>
<tr>
<td>Cardiovascular system</td>
<td><strong>Dyslipidaemia</strong> - statins, fibrate, ezetimibe</td>
<td>All indications</td>
<td>Long-term benefits at population level. Little short/intermediate term risk of stopping</td>
</tr>
<tr>
<td></td>
<td>Antihypertensives</td>
<td>If sole use is to reduce mild-moderate hypertension for 2(^\circ) prevention of CV events/ as management of stable CAD</td>
<td>Long-term benefits at population level. Ongoing therapy unnecessary in most shortened life expectancy</td>
</tr>
</tbody>
</table>

Lindsay J. J Support Care Cancer 2015; 23: 71-78
## Musculoskeletal System

<table>
<thead>
<tr>
<th>Medication Class</th>
<th>Medication Class</th>
<th>Considerations for limited benefit</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osteoporosis Medications</td>
<td>- bisphosphonates,</td>
<td>Except if used for the treatment of hypercalcaemia secondary to bone metastases</td>
<td>Long term benefits at population level. Little short or intermediate term risk of stopping.</td>
</tr>
<tr>
<td></td>
<td>raloxifene, strontium,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>denosumab</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Alimentary Tract and Metabolism

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<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peptic ulcer prophylaxis</td>
<td>- Proton pump inhibitors, H2</td>
<td>Lack of any medical history of gastrointestinal bleeding, peptic ulcer, gastritis, GORD/GERD, or the concomitant use of anti-inflammatory agents including NSAIDs and steroids</td>
<td>Ongoing therapy unnecessary in most shortened life expectancy</td>
</tr>
<tr>
<td></td>
<td>antagonists</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lindsay J. J Support Care Cancer 2015; 23: 71-78
### Medication Considerations for limited benefit Explanation

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Oral Hypoglycaemics</td>
<td>If sole use is to reduce mild hyperglycaemia for secondary prevention of diabetic associated events</td>
<td>Potential short-term complications outweigh benefits</td>
</tr>
<tr>
<td>Vitamins, Minerals, Complementary-alternative medicines</td>
<td>If not indicated to treat a low blood plasma concentration</td>
<td>No evidence for effectiveness</td>
</tr>
</tbody>
</table>

Lindsay J. J Support Care Cancer 2015; 23: 71-78
OncPal Deprescribing Guideline: Limitations

• Steps to de-prescribe including planning the medication withdrawal (tapering, if required), monitoring and follow up after cessation **not** included

• Risks associated with withdrawal of medications, including potential stress to patients & carers, and potential adverse drug withdrawal reactions **not** addressed

Lindsay J. J Support Care Cancer 2015; 23: 71-78
Reeve E. J Support Care Cancer 2014; doi: 10.1007/s00520-014-2445-3
OncPal Deprescribing Guideline: It’s Role

• Assist in identifying potentially inappropriate medications (PIMs)
• Aid in rationalization of medications

Lindsay J. J Support Care Cancer 2015; 23: 71-78
Are we there yet?
Continuum of Palliative Cancer Care

Fig 2. Model of palliative cancer care.

Ferris FD. J Clinical Oncology 2009; 27:3052- 58
Questions that need to be answered
Future research questions

• Quantitative data on health outcomes from active deprescribing programs in elderly cancer patients
• Quality of life outcomes from active deprescribing programs in elderly cancer patients
• Pharmaco-economic data on the benefits of active deprescribing programs in elderly cancer patients
• Effectiveness of collaboration between Medical Oncologists, Palliative Care Specialist, Geriatrician, Family Physicians and Pharmacists
Handouts

- Pharmacy Week De-prescribing Pocket Card (KIV)
- Beer’s Criteria 2012
- STOPP/ START
- Recommended reading list
Recommended Readings


Thank you for your kind attention

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