Supportive Care and Medicine Matters in the older cancer patients: The Asian Perspective

Alex Chan, Pharm.D., MPH, BCPS, BCOP
Assistant Head and Associate Professor
National University of Singapore
Specialist Pharmacist (Oncology)
National Cancer Centre Singapore
phaac@nus.edu.sg
Outline

• Drug-Related Problems in the Elderly

• Rising Costs of Medications: Financial Burden in the Elderly

• Medication Therapy Management Service in Elderly Cancer Patients at National Cancer Centre Singapore
Background

• Cancer incidence increases with age

• Many of these patients manifest other comorbidities

• This patient population often suffers from issues associated with polypharmacy
  – Other published terms include *unnecessary medications* or *potentially inappropriate medications*
## Polypharmacy reports of patients with cancer

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of patients</th>
<th>Age (years)</th>
<th>Number of prescribed drugs</th>
<th>Patients taking OTC (%)</th>
<th>Patients taking CAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cashman, et al</td>
<td>UK</td>
<td>100</td>
<td>Median 73.5 (IQR 65-88)</td>
<td>Median 7 (IQR 1-17)</td>
<td>NR</td>
</tr>
<tr>
<td>Puts, et al</td>
<td>Canada</td>
<td>112</td>
<td>Median 74.2 (IQR 65-92)</td>
<td>Median 5 (IQR 3-9)</td>
<td>NR</td>
</tr>
<tr>
<td>Hanigan, et al</td>
<td>USA</td>
<td>52</td>
<td>Range 44-85</td>
<td>Mean 5.5 (IQR 0-13)</td>
<td>71%, mean 2.2 drugs (IQR 0-20)</td>
</tr>
<tr>
<td>Sokol, et al</td>
<td>USA</td>
<td>100</td>
<td>Median 78 (IQR 70-90)</td>
<td>Mean 9.1 (prescribed and over the counter)</td>
<td>NR</td>
</tr>
</tbody>
</table>

CAM = Complementary and Alternative Medications; NR = Not Reported; OTC = Over the counter

Panel: Practical recommendations for drug management in elderly patients with cancer

Potentially inappropriate medications (as per Beer’s criteria11) include drug classes that can potentially be discontinued (in collaboration with a patient’s primary-care doctor), such as:

- Tricyclic antidepressants
- Sedating antihistamines
- Long acting benzodiazepines associated with increased sedation
- Analgesics including dextropropoxyphene or tramadol
- Some non-steroidal anti-inflammatory drugs, including indometacin

Be alert for, and consider changing, drugs that are commonly used by patients with cancer, and are associated with high frequency of adverse drug events, such as:

- Anticoagulants (specifically warfarin)24
- Benzodiazepines

Assess drugs that are used for primary or secondary prevention for appropriateness in terms of long-term benefit in patients with metastatic cancer3 (in collaboration with the patient’s primary-care doctor), such as:

- Antihypertensives
- Lipid-lowering drugs
- Antiplatelet drugs
- Anticoagulants
Financial Burden: Consequences of rising healthcare cost

Support Care Cancer
DOI 10.1007/s00520-013-1930-4

Affordability of cancer treatment for aging cancer patients in Singapore: an analysis of health, lifestyle, and financial burden

Alexandre Chan · Yu Yan Chiang · Xiu Hui Low · Kevin Yi-Lwern Yap · Raymond Ng

Received: 15 October 2012 / Accepted: 31 July 2013
© Springer-Verlag Berlin Heidelberg 2013

This study is sponsored by National University of Singapore Virtual Institute for the Studying of Ageing Research Grant 2010 (R-148-000-143-290) and the Ministry of Community Development, Youth and Sports.
### Perception of financial burden among aging cancer patients in Singapore

<table>
<thead>
<tr>
<th>Financial Perception</th>
<th>Agree/Strongly Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The cost of cancer treatment has financially affected my family and me</td>
<td>58.0</td>
</tr>
<tr>
<td>• Cost is the most important factor when I consider my treatment options for cancer</td>
<td>69.2</td>
</tr>
<tr>
<td>• I am currently having difficulty paying for my cancer treatment</td>
<td>22.9</td>
</tr>
<tr>
<td>• The various forms of assistance and subsidies have alleviated the financial burden of my cancer treatment</td>
<td>70.6</td>
</tr>
<tr>
<td>• I spend a lot of time and effort applying for the financial schemes (e.g., Medifund and other subsidies)</td>
<td>10.3</td>
</tr>
<tr>
<td>• I decided to stop the recommended treatment because of the cost</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Among elderly cancer patients who are users of **targeted therapies**

<table>
<thead>
<tr>
<th>Financial Perceptions</th>
<th>Adjusted Odds Ratios (compared to those who are not using targeted therapies)</th>
<th>( p ) value</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The amount of cash that I have spent on cancer treatment is more than expected</td>
<td>2.92 (1.85–4.60)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>• The cost of cancer treatment has financially affected my family and me</td>
<td>1.82 (1.17–2.85)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.008</td>
</tr>
<tr>
<td>• I am currently having difficulty paying for my cancer treatment</td>
<td>2.52 (1.58–4.02)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>• I spent a lot of time and effort applying for the financial schemes (e.g., Medifund and other subsidies)</td>
<td>2.34 (1.27–4.33)&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.006</td>
</tr>
</tbody>
</table>

\(<sup>a</sup>\) Adjusted for CAM usage  
\(<sup>b</sup>\) Adjusted for age, housing status, and health status  
\(<sup>c</sup>\) Adjusted for housing status and health status

Medication Therapy Management Service for Geriatric Cancer Patients at National Cancer Centre Singapore
Background

• To develop a pharmacy driven, geriatric patient-centered medication service in order to:
  - Optimize patients’ medications
  - Answer patients’ questions about medications
  - Provide patients with a medication list
  - Show patients how and why they are taking medications
  - Help patients to communicate with their doctor(s), if needed
MTM at NCCS

- >65 years old
- At least 1 medication

Screen → Clerk → Seek Patient’s/ Caregiver’s Agreement → Perform Medication Review, Identification of DRP, & Patient Counselling (Cancer & Noncancer Drugs)

Send a report to the Medical Oncologist in-charge

Follow-up Visits: Resolve DRPs, Chemotherapy-related Symptom Management, Reinforce proper drug use etc

DRP requiring intervention

Communicate with Community Care Physicians/ Other Specialists

Communicate with Medical Oncologist

MTM at NCCS

- Number of patients recruited between July 2010 – Apr 2011: 118
- Sex: 55.9% male
- Mean age: 71.7
- Mean no. of co-morbidities: 3.4
- Mean no. of chronic medications: 6.4
- Drug-related problems identified
  - Potential drug-drug interactions: 117 (32.4%)
  - Adverse effects: 114 (31.6%)
  - Patient adherence: 48 (13.3%)

Summary

• Recognition of polypharmacy is only the first step towards prevention of drug-related problems in elderly

• Rising cost of medications impose serious financial burden in elderly

• Multidisciplinary team approach through geriatric oncology or senior adult oncology programs
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