Multimorbidity in Cancer Care

Professor Margot Gosney
Royal Berkshire NHS Foundation Trust
University of Reading
Multimorbidity

• The presence of two or more long-term health conditions where at least one of these conditions must be a physical health condition. These can include:
  – Defined physical and mental health conditions such as diabetes or schizophrenia
  – On going conditions such as learning disability
  – Symptom complexes such as frailty or chronic pain
  – Sensory impairment such as sight or hearing loss
  – Alcohol and substance misuse
Why does it matter?
Life Expectancy in Senior Adults: Large Variability Reflects Health Status Variability

- Healthy: Top 25th percentile
- Vulnerable (median): 50th percentile
- Frail: Lowest 25th percentile

In cancer it is not the only prognostic factor
# Stage, age, CRC, all patients

<table>
<thead>
<tr>
<th></th>
<th>Stage</th>
<th>1976-87 (%)</th>
<th>1988-99 (%)</th>
<th>2000-10 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;75</td>
<td>I,II</td>
<td>48.4</td>
<td>53.4</td>
<td>59.2</td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>22.1</td>
<td>21.6</td>
<td>20.7</td>
</tr>
<tr>
<td></td>
<td>advanced</td>
<td>29.5</td>
<td>23</td>
<td>20.1</td>
</tr>
<tr>
<td>&gt;75</td>
<td>I,II</td>
<td>42.6</td>
<td>50.4</td>
<td>55.3</td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>15.2</td>
<td>20.7</td>
<td>20.4</td>
</tr>
<tr>
<td></td>
<td>advanced</td>
<td>41.2</td>
<td>28.9</td>
<td>24.3</td>
</tr>
</tbody>
</table>

Advanced = Stage IV and unresectable
**Evidence of under-management:**

Cancer in old age—is it inadequately investigated and treated?

NJ Turner, R A Haward, G P Mulley, P J Selby

Proportion (%) of cancers confirmed by histology, cancer patients with no definitive treatment, and cancer patients surviving five years, by age group, Yorkshire 1989-93

<table>
<thead>
<tr>
<th>Site</th>
<th>Confirmed by histology</th>
<th>No definitive treatment</th>
<th>Five year survival*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-64</td>
<td>65-74</td>
<td>75+</td>
</tr>
<tr>
<td>Colon</td>
<td>95</td>
<td>89</td>
<td>75</td>
</tr>
<tr>
<td>Lung</td>
<td>80</td>
<td>70</td>
<td>69</td>
</tr>
<tr>
<td>Prostate</td>
<td>94</td>
<td>91</td>
<td>78</td>
</tr>
<tr>
<td>Skin (non-melanoma)</td>
<td>98</td>
<td>98</td>
<td>96</td>
</tr>
<tr>
<td>Stomach</td>
<td>90</td>
<td>86</td>
<td>70</td>
</tr>
</tbody>
</table>

*Excludes deaths from other causes.
How do we deal with the whole person?
What are the aspects of CGA?

Traditional CGA comprises the following elements:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical assessment</td>
<td>Problem list</td>
</tr>
<tr>
<td></td>
<td>Comorbid conditions and disease severity</td>
</tr>
<tr>
<td></td>
<td>Medication review</td>
</tr>
<tr>
<td></td>
<td>Nutritional status</td>
</tr>
<tr>
<td>Assessment of functioning</td>
<td>Basic activities of daily living</td>
</tr>
<tr>
<td></td>
<td>Instrumental activities of daily living</td>
</tr>
<tr>
<td></td>
<td>Activity/exercise status</td>
</tr>
<tr>
<td></td>
<td>Gait and balance</td>
</tr>
<tr>
<td>Psychological assessment</td>
<td>Mental status (cognitive) testing</td>
</tr>
<tr>
<td></td>
<td>Mood/depression testing</td>
</tr>
<tr>
<td>Social assessment</td>
<td>Informal support needs and assets</td>
</tr>
<tr>
<td></td>
<td>Care resource eligibility/financial assessment</td>
</tr>
</tbody>
</table>
## Who can/should deliver CGA?

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical assessment</td>
<td>Geriatrician</td>
</tr>
<tr>
<td>Assessment of functioning</td>
<td>PT/OT</td>
</tr>
<tr>
<td>Psychological assessment</td>
<td>Nurse/Geriatrician/Old Age Psychiatry</td>
</tr>
<tr>
<td>Social assessment</td>
<td>Administrator/Nurse</td>
</tr>
<tr>
<td>Environmental assessment</td>
<td>OT</td>
</tr>
</tbody>
</table>
Multimorbidity aka Comorbidity
Comorbidity Scores

- Geriatric Index of Comorbidity (GIC)
- Adult co-morbidity Evaluation ASA -27
- Cumulative Index Rating Scale for Geriatrics (CIRS-G)
- Charlson Index
Comorbidity Scores

- **Geriatric Index of Comorbidity**
  - no validation in elderly patients with cancer

- **ASA-27**
  - OK with cancer, but most data due to retrospective extraction
Comorbidity Scores

- **The Charlson Index**
  - poor correlation with other ageing comorbidity ratings
  - lacks sensitivity - merely yes/no i.e. no severity

- **CIRS-G**
  - measures burden of physical illness
  - mainly validated in residential care
  - poor validation in cancer
physiological heterogeneity of elderly patients
Assess first, then treat

- Good shape: same treatment as younger patients (half of 70 – 75-year-old and 25% of 80 – 85-year-old patients)
- Vulnerable: intervention then standard treatment
- Frail: intervention then adapted treatment or palliation
- “Too sick”
Relative influence of different factors in determining intensity of treatment

Q: Please rank the following factors in terms of their importance when deciding how intensively you can treat [SPECIFIC CANCER] patients when your goal is to cure them.
Please rank the top 5 factors from 1 to 5 where 1= most important and 5=fifth most important!
Base: 301. All countries, all cancers

Relative influence

- Patient’s performance status: 22.9
- Cancer stage: 18.6
- Severity of comorbidities: 16.2
- Patient’s ability to tolerate treatment: 13.6
- Prognosis biomarkers: 13.6

Relative influence

- Cancer grade: 20.2
- Number of comorbidities: 16
- Patient’s biological age: 12.5
- Treatment toxicity: 9.7
- Patient’s chronological age: 9.1

Attribute significantly more influential than chronological age in that country/countries

Attribute significantly more influential than biological age in that country/countries
Factors that determine treatment intensity when curative outcome is the intention

Q: What factors dictate how intensively you can treat a patient with [SPECIFIC CANCER] when your goal is to cure them?
Base: 301. All countries, all cancers
Findings

The following issues were identified in the first 70 patients seen by the COCOC team:

• 45% had a history of hypertension
• 43% reported a history of falls
• 41% were taking four or more medications
• 40% lived alone
• 40% had impaired ability to plan and prepare meals
• 38% had three or more comorbidities
• 23% were completely unable to shop
• 19% had a body mass index of less than 20
• 16% showed signs of cognitive impairment on assessment
• 10% required assistance to eat or drink
• 10% had difficulty using the telephone
NICE Versus NASTY
Adult who may benefit from an approach to care that takes account of multimorbidity

Principles and steps to follow

Discuss the purpose of the approach to care

Establish disease and treatment burden

Identify patient preferences and priorities

Review medicines and other treatments

Agree an individualised management plan
Individualised management plan

- Find out what the patient wants (agree how realistic it is and then prepare for the negotiations)
- Look at comorbidity
- Look at medication and be realistic
- Sort out healthcare appointments (probably cancel most)
- Try to imagine how things are going to change particularly after surgery or oncological input
- Think about who is going to co-ordinate the care and this list of people who need to be cc’d
- Think about follow up and who needs copies of the management plan
Adult who may benefit from an approach to care that takes account of multimorbidity

Principles and steps to follow

Discuss the purpose of the approach to care

Establish disease and treatment burden

Identify patient preferences and priorities

Review medicines and other treatments

Agree an individualised management plan
Principles and steps

• How will treatments interact with pre-existing health conditions (what affects on quality of life)
• Patient’s preferences and how treatment will impact on life style and goals e.g. peripheral neuropathy etc.
• Which guidance on single health conditions are now important (life expectancy trumps some evidence based medicine)
• Can we reduce treatment burden adverse events and unplanned care by altering treatment without necessarily impacting on survival?
• Improving co-ordination of care
Adult who may benefit from an approach to care that takes account of multimorbidity

- Principles and steps to follow
  - Discuss the purpose of the approach to care
  - Establish disease and treatment burden
  - Identify patient preferences and priorities
  - Review medicines and other treatments
  - Agree an individualised management plan
Discuss the purpose of the approach to care

• How do we maximise the benefit from existing treatments (pragmatism vs. evidence based medicine)
• What can we stop because of limited benefit (statins my favourite)
• Can we reduce treatment and follow up burden (SOS rather than routine follow up)
• Identify the Geriatrician’s favourite medicines e.g. high risk of adverse events (remember; falls, GI bleed and AKI!)
• Non pharmacological treatments instead of pills
• How do you reduce the number of appointments?
Adult who may benefit from an approach to care that takes account of multimorbidity

Principles and steps to follow

Discuss the purpose of the approach to care

Establish disease and treatment burden

Identify patient preferences and priorities

Review medicines and other treatments

Agree an individualised management plan
Establish disease and treatment burden

• Need to talk about mental health especially depression and anxiety
• How disease burden is affecting well being pre and post cancer diagnosis
• How are the health problems interacting and how this affects quality of life
Lists to remember

1. Number of appointments
2. Number of medicines
3. Diet, exercise and psychological treatments
Adult who may benefit from an approach to care that takes account of multimorbidity

Principles and steps to follow

Discuss the purpose of the approach to care

Establish disease and treatment burden

Identify patient preferences and priorities

Review medicines and other treatments

Agree an individualised management plan
Identify patient preferences and priorities

- Communication with family members and carers
  - Has anyone sat down and talked to everyone together?
- Personal goals, values and priorities
- Can the patient maintain their independence after cancer treatment?
- Can the patient continue working and taking part in social activities including family life after cancer treatment?
- How is it important preventing specific adverse outcomes e.g. post operative cognitive dysfunction, reducing harm from medication, reducing treatment burden, lengthening life remembering quality vs. quantity.
Adult who may benefit from an approach to care that takes account of multimorbidity

Principles and steps to follow

Discuss the purpose of the approach to care

Establish disease and treatment burden

Identify patient preferences and priorities

Review medicines and other treatments

Agree an individualised management plan
Review medicines and other treatments

• Always ask yourself
  1. Effectiveness of a treatment
  2. Duration of treatment trials
  3. Populations included in treatment trial

• Look particularly at treatments that are relieving symptoms e.g. PPI

• Preventative treatment e.g. Bisphosphonates after three years treatment!
Adult who may benefit from an approach to care that takes account of multimorbidity

Principles and steps to follow

Discuss the purpose of the approach to care

Establish disease and treatment burden

Identify patient preferences and priorities

Review medicines and other treatments

Agree an individualised management plan
• Adults with individualised management plan and multimorbidity feel that decisions about their treatment have taken into account their values, priorities and goals
Who benefits from management plans for multimorbidity?

- Service providers (GP Practices, District Nurse services, Community Pharmacies, Hospital’s)
- Healthcare professionals (GP’s, Practice Nurses, District Nurses, Community Pharmacists)
- Commissioners
- Patient’s and family members
Multimorbidity

• The rules are the same but more important.
• Cancer treatment can complicate decision making
• Use it as an opportunity to “Spring Clean”
• Don’t forget the Geriatrician as the voice of reason