Understanding and meeting the needs of the older population: a global challenge

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- Canadian Initiative on Frailty and Aging
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- Solidage (McGill/UdeM)-CIHR funded research team on frailty and aging
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- Quebec Alzheimer Task Force
- Beijing Forum: Aging and Chronic Disease: A Global Challenge
- McGill/JGH Oncology and Aging Research and Training Program
- Montreal (McGill/UdeM) Consortium for the Study of Aging and Chronic Disease (MCSAC)

The Shifting Face of Health Care

- From acute to chronic disease
- From institutions to networks of care; from a single site (hospital, nursing home) to many sites: home, assisted living, supportive housing, physician’s office, community clinics, ambulatory care centers, community hospitals, academic health centers, rehabilitation facilities, nursing homes, palliative care centers
- From a single professional, generally a physician to many health care professionals: family doctors, specialists, nurses, physical therapists, nutritionists, social workers, psychologists, etc.
- Expectations/knowledge/involvement of patients and family

Health care systems and the challenge of aging

- Potential for promotion/prevention promoting healthy aging and in at least delaying onset of frailty and disability
  - Interaction: health/functional status/social status and support
  - Importance of chronic disease and impact on quality of life and progression to disability
- ↑ complex interventions (technology/medication) in increasingly older persons
- Health care systems poorly adapted to the management of chronic disease, frailty and dependency; complexity of treating chronic diseases and frail older persons

The Demographic Transition: Life expectancy at birth 1950-2050 (UN 2001)
The Demographic Transition:
Distribution of the world population aged 80 and over by development region, 1950-2050 (UN, 2001)

The Demographic Transition:
Proportion of the population aged 65 years and over in France et Mexico, over time

Projected main causes of death by World Bank income group, all ages, 2005

Factors affecting the epidemiologic transition

Rapid increase in chronic disease, life expectancy and number of older persons

- Increase in number of older persons with disabilities
- Increased burden: older person, family, community and society

Incidence and mortality of cancer increase with age
Heath care systems and the challenge of aging

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Oncology and Aging
The Research Challenge

- Median age of newly diagnosed lung cancer patients in clinical trials is 60 (vs median 69 according to SEER)

- Despite receiving less chemotherapy compared to young patients, elderly patients derive a substantial survival benefit from adjuvant therapy

- Chemotherapy in the adjuvant setting should not be withheld from elderly patients on the basis of age alone

- Patients aged >75 require further study

Oncology and Aging: the clinical challenge
Factors influencing treatment decisions

- Patient related
  - Life expectancy
  - Health and functional status
  - Family/social support/organisation
  - Patient/family attitudes/preferences

- Cancer related
  - Prognosis/treatment

- Physician related
  - Knowledge/attitudes/preferences
  - Time/patience/organisation/infrastructure

- Underdetection / undertreatment / overtreatment

- Difficulty for physicians lies in selection of appropriate older person
  - Those who appear too old or with “too many” comorbidities may be appropriate
  - Those who appear fit may be more vulnerable than we think
  - Tailor treatment decisions on the basis of health and functional status rather than on the basis of age or impression
  - Anticipate/prevent complications

Comments by Cancer Specialists

- We lack tools to better evaluate chemotherapy risks in these patients. Some >80 tolerate very well chemo as opposed to others. Other than Karnofsky/ECOG, it would be interesting to have “metabolic” evaluation tools on the potential risk of toxicity from chemotherapy. Very nice work, continue!

- There is a need for a partnership between Oncology and Geriatrics to improve the care of older cancer patients.

- It would be great if we could more collaborate with geriatrician. The optimal collaboration should be as a form of a clinic present on site as in our department and participation in tumour board

- Present proposed approach: geriatric assessment for all older persons presenting to oncology

- Core of geriatric assessment based on assessment of ADL/IADL and mental status (Folstein)

- Geriatric assessment not intended for independent patients affected by only one severe medical condition

- Older persons presenting to oncology are healthier and more independent than those presenting to geriatrics

- Ceiling effect if only traditional geriatric assessment is used.
Health and functional status of elderly cancer patients

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<tr>
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<tbody>
<tr>
<td>Patients</td>
<td>138</td>
<td>303</td>
<td>363</td>
<td>xx</td>
</tr>
<tr>
<td>Age 77.5 (med)</td>
<td>72 (med)</td>
<td>72.9</td>
<td>75 (med)</td>
<td>74</td>
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<tr>
<td>ECOG PS</td>
<td>83%</td>
<td>64%</td>
<td>74%</td>
<td>83%</td>
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<tr>
<td>0-1</td>
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<tr>
<td>ADL independent</td>
<td>83%</td>
<td>86%</td>
<td>78.8%</td>
<td>95%</td>
</tr>
<tr>
<td>IADL independent</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Comorbidities 0-12%</td>
<td>0 - 43%</td>
<td>0 - 75%</td>
<td>64% + 0</td>
<td>0 - 11%</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(Charlson) + 6%</td>
<td>3 - 30%</td>
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<tr>
<td>MMSE</td>
<td></td>
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<td>24 + 33%</td>
<td>26 + 25%</td>
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Objectives of the McGill/JGH longitudinal study on Cancer and Aging

- To identify clinical, functional and biological predictors based on frailty and oncology literature for adverse treatment outcomes in newly diagnosed cancer patients and to investigate health and functional trajectories of older cancer patients during a two- to five-year period.
- To develop a screening tool to be used by oncologists to identify older patients with potential vulnerabilities and with health problems that should be addressed before ordering cancer treatment. These patients could then benefit from a Geriatric consultation or other types of intervention.

Potential Relevance of the Frailty Syndrome

- Improves our understanding of the aging process and ability to characterise the heterogeneity of older persons
- At population and clinical level: characterises health and functional status beyond disability and co morbidity
- Potential for modification, at least in early stages
  - Frailty and disability are dynamic states
  - opportunities for health promotion, prevention
- Targeting risk in non disabled older persons with chronic disease
  - Understand health/functional characteristics
  - "Predict" expect plan outcomes and complications
  - Tailor intervention

Embracing the heterogeneity and complexity

- Healthy older persons
  - Primary medical care, Health assessment/promotion/prevention
- Early frail/low risk/chronic disease
  - Primary medical care, Chronic disease management, detection of vulnerability
- Medium risk/mild-moderate disability
  - Primary medical care and home care, chronic disease management. Specialized Geriatric care,
- Disability and “complex” systems of integrated care
- End of life care

Health and functional status of cancer patients, aged 70 years and older referred for chemotherapy- preliminary findings

\[ \begin{array}{c|c|c|c|c}
\text{Without frailty markers or IADL/ADL disability} & \text{With frailty markers but without IADL/ADL disability} & \text{IADL disability without ADL disability} & \text{ADL disability} \\
\hline
12\% & 42\% & 30\% & 16\% \\
\end{array} \]
Oncology and Aging

Objectives

◆ Improve care of older persons with cancer by promoting increased population, biological, clinical (including clinical trials) research on older persons with cancer
◆ A better understanding of the health and functional characteristics and the trajectories of older persons with cancer
  – Tailor treatment decisions on the basis of health and functional status rather than on the basis of age or impression
  – Anticipate/prevent complications

◆ Develop a systematic clinical approach to the assessment and management of older persons with the appropriate instruments for oncologists, geriatricians, primary care physicians and other specialists and health care professionals
◆ Develop an appropriate collaborative care model among oncology, geriatric medicine and primary care
  – Education/training for MD’s, nurses and other professionals
◆ Promote informed attitudes and decision making for clinicians, patients and families based on evidence

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