Is Primary Care Prepared for the Aging Population?

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Overview

• Demographic Transition
• What do population trends tell us
• One model and approach
• Some thoughts for the future
Next in ingenuity to the marriage custom is their treatment of disease. They have no doctors, but bring their invalids out into the street, where anyone who comes along offers the sufferer advice on his complaint, either from personal experience or observation of a similar complaint in others...Nobody is allowed to pass a sick person in silence; but everyone must ask him what is the matter.
Grand Challenges: The Simultaneity Problem

• The grandest challenge our acute/primary care system faces is how to respond to multiple concurrent chronic diseases and aging

• The grandest challenge our public health and preventive care systems face is how to prevent it
Life expectancy at birth, by sex, Canada, 1956 to 2005

- Males
- Females


Years: 58, 63, 68, 73, 78, 83, 88
### Table 4:

Percentage of distribution of the population by number of chronic conditions and age group, 2005

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number of Chronic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>12-29</td>
<td>45.5</td>
</tr>
<tr>
<td>30-49</td>
<td>35.2</td>
</tr>
<tr>
<td>50-64</td>
<td>20.7</td>
</tr>
<tr>
<td>65-79</td>
<td>10.0</td>
</tr>
<tr>
<td>80+</td>
<td>6.7</td>
</tr>
<tr>
<td>All ages</td>
<td>31.3</td>
</tr>
</tbody>
</table>
Multiple Chronic Conditions is the norm!

1/15 have no CHCs!

60% have 3 or more chronic health conditions

Denton and Spencer 2010
Prevalence of diagnosed diabetes among individuals aged 1 year and older, by age group and sex, Canada, 2008/09.
FIGURE 5  Incidence rates for all cancers, by age, Ontario, 2002–2006

Source: Cancer Care Ontario (Ontario Cancer Registry, 2009)
Classification of cut points for low-, medium- and high- users

<table>
<thead>
<tr>
<th>Year</th>
<th>First quartile</th>
<th>Third quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>20</td>
<td>63</td>
</tr>
<tr>
<td>1999</td>
<td>20</td>
<td>63</td>
</tr>
<tr>
<td>2000</td>
<td>21</td>
<td>68</td>
</tr>
<tr>
<td>2001</td>
<td>22</td>
<td>70</td>
</tr>
<tr>
<td>2002</td>
<td>24</td>
<td>73</td>
</tr>
<tr>
<td>2003</td>
<td>24</td>
<td>76</td>
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<td>2004</td>
<td>25</td>
<td>78</td>
</tr>
<tr>
<td>2005</td>
<td>26</td>
<td>80</td>
</tr>
<tr>
<td>2006</td>
<td>26</td>
<td>81</td>
</tr>
</tbody>
</table>
Frequency distribution of number of unique medication classes for older adults aged 65+ in Ontario, Canada, 1997-2006.
Age differences in prescription claims per person for older adults aged 65+ in Ontario, Canada, 1997-2006
Challenges in Designing the System
Multiple chronic conditions: the care challenge

- Clinical Practice Guidelines (CPGs) have a single disease focus
- CPGs often conflict with each other and between diseases
- Reliance on single disease CPGs for care of patient with multiple co-morbidities = near total medicalization of patient’s life
Underrepresentation of individuals 80 years of age and older in chronic disease clinical practice guidelines

Lizbeth Cox  Marita Kloscek MD  Richard Crilly MD FRCP  Carol McWilliam MD  Laura Diachun MD FRCP

Abstract

Objective To determine whether Canadian clinical practice guidelines (CPGs), and the evidence used to create CPGs, include individuals 80 years of age and older.

Design Descriptive analysis of 14 CPGs for 5 dominant chronic conditions (diabetes, hypertension, heart failure, osteoporosis, stroke) and descriptive analysis of all research-based references with human participants in the 14 guidelines.

Main outcome measures To identify recommendations for individuals 65 years of age and older or 80 years of age and older and for those with multiple chronic conditions.

Results Although 12 of 14 guidelines provided specific recommendations for individuals 65 years of age and older, only 5 provided recommendations for frail older individuals (≥80 years). A total of 2559 studies were used as evidence to support the recommendations in the 14 CPGs; 2272 studies provided the mean age of participants, of which only 31 (1.4%) reported a mean age of 80 years of age and older.

Conclusion There is very low representation of individuals in advanced old age in CPGs and in the studies upon which these guidelines are based, calling into question the applicability of current chronic disease CPGs to older individuals. The variety of medical and functional issues occurring in the elderly raises the concern of whether or not evidence-based disease-specific CPGs are appropriate for such a diverse population.

EDITOR'S KEY POINTS

• As the population ages, older individuals with chronic diseases are consuming a large portion of health care costs and services; however, clinical practice guidelines (CPGs) developed to manage these conditions are not always applicable to this population, as the studies upon which recommendations are based rarely include older participants.

• Individuals in advanced old age in particular are likely to have multiple chronic conditions; therefore, they might be the recipients of multiple evidence-based recommendations and treatments without consideration of comorbidity, conflicting management strategies, and polypharmacy.
How applicable are clinical practice guidelines to elderly patients with comorbidities?

Donatus R. Mutasingwa MD MPhil PhD CCFP  Hong Ge MD MHSc CCFP  Ross E.G. Upshur MD MSc CCFP FRCPC

Abstract

Objective To examine the applicability of 10 common clinical practice guidelines (CPGs) to elderly patients with multiple comorbidities.

Design Content analysis of published Canadian CPGs for the following chronic diseases: diabetes, dyslipidemia, dementia, congestive heart failure, depression, osteoporosis, hypertension, gastroesophageal reflux disease, chronic obstructive pulmonary disease, and osteoarthritis.

Main outcome measures Presence or absence of 4 key indicators of applicability of CPGs to elderly patients with multiple comorbidities. These indicators include any mention of older adults or people with comorbidities, time needed to treat to benefit in the context of life expectancy, and barriers to implementation of the CPG.

Results Out of the 10 CPGs reviewed, 7 mentioned treatment of the elderly, 8 mentioned people with comorbidities, 4 indicated the time needed to treat to benefit in the context of life expectancy, 5 discussed barriers to implementation, and 7 discussed the quality of evidence.

Conclusion This study shows that although most CPGs discuss the elderly population, only a handful of them adequately address issues related to elderly patients with comorbidities. In order to make CPGs more patient centred rather than disease driven, guideline developers should include information on elderly patients with comorbidities.
Barnett et al. Conclusions

• A strong, generalist primary care system based around an appropriately skilled multi-professional team is the most obvious way to deliver this holistic, longitudinal care for most people with multiple disorders, and should seek to maximise quality of life and minimise future disability and morbidity.
Barnett et al. Conclusions

• Countries with strong primary health-care systems have better health outcomes and lower health-care costs than do those without, but primary care is weak and underdeveloped worldwide, and even countries with strong primary care systems face substantial challenges from ageing populations and increasing multimorbidity.
New Initiatives

- Choosing Wisely
- Less is More
- Minimally Disruptive Medicine
The Problem of Time
Too complex and time-consuming to fit in! Physicians’ experiences of elderly patients and their participation in medical decision making: a grounded theory study

Anne Wissendorff Ekdahl, Ingrid Hellström, Lars Andersson, Maria Friedrichsen
Schaink et al.

HEALTH AND SOCIAL EXPERIENCES
e.g., healthcare utilization,
quality of life, self-management,
healthcare system navigation, etc.

MEDICAL/PHYSICAL HEALTH
e.g., multimorbidity, polypharmacy,
physical functioning, chronic symptoms,
clinical practice guidelines, etc.

SOCIAL CAPITAL
e.g., social support,
caregiver strain,
socioeconomic status,
relationships, etc.

MENTAL HEALTH
e.g., depression,
substance use, cognitive capacity,
psychological wellbeing, etc.

DEMOGRAPHICS
e.g., age, gender,
ethnicity, education, etc.

SOCIO-POLITICAL AND PHYSICAL ENVIRONMENT
Patient Complexity

Mental Health, Addiction, Cognition

Social Determinants of Health

Multiple Concurrent Complex Conditions ± Aging

CCAC

Primary Care

LTC

Emergency Department

Acute Care

Continuing Care / Rehab

Mental Health Care

Social Services

Specialty Care
Alignment of Treatment Goals

Providers

Treatment Goals Aligned

Caregivers
Interprofessional Model of Practice for Aging and Complex Treatments

IMPACT PLUS: a comprehensive model of

- Assessment
- Care Planning
- Mentorship and training
  - Interprofessional problem solving model
  - Includes PCPs, CCAC worker, pharmacist, RNs, NPs, social workers, physiotherapist, OT, dieticians, trainees

PLUS

- Psychiatrist & General Internist
Social isolation shortens lifespan

Ageing study finds being alone is a health risk.

Amanda Mascarelli

25 March 2013

Scientists have long known that both social isolation and feelings of loneliness can increase risk of illness and death in people. But it has been less clear whether isolation, which can lead to loneliness, undermines health, or whether either factor, acting alone, can harm well-being. Today, researchers report in the Proceedings of the National Academy of Sciences that limited contact with family, friends and community groups predicts illness and earlier death, regardless of whether it is accompanied by feelings of loneliness.

The scientists analysed data from 6,500 people...
Table 4. Proportion of Final 5 Years of Life Spent With Chronic Conditions, Stratified by Midlife Fitness Level

<table>
<thead>
<tr>
<th>Fitness Level</th>
<th>Chronic Conditions, % (95% CI)(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 or 1</td>
</tr>
<tr>
<td>Q1 (n = 649), 3399 person-years before death</td>
<td>43.5 (41.8-45.2)</td>
</tr>
<tr>
<td>Q2-Q3 (n = 1046), 6242 person-years before death</td>
<td>51.0 (49.8-52.2)</td>
</tr>
<tr>
<td>Q4-Q5 (n = 711), 4118 person-years before death</td>
<td>58.3 (56.8-59.8)</td>
</tr>
</tbody>
</table>

Abbreviation: Q, quintile.

\(^a\)Data represent the proportion (given as the percentage [95% CI]) of follow-up time based on person-years spent at each level of chronic condition burden according to strata of midlife fitness levels.

Figure Legend:
Conclusions

• Need to invest in primary care
• No current optimal practices for management at any level or in any health system
• Need to embed health care response in primary care and public health
• Prevention possible on basis of current knowledge
• Addressing social determinants crucial