Are Family Physicians still part of the Primary Care Palliative Care team in the community?

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Background

- In Canada …
  - the comprehensiveness of Family Physician (FP) services is DECLINING
  - At the same time, services are being EXPANDED for patients dying at home
  - Includes home care (HC) teams

- Past research suggested home visits by FPs have NOT increased among all patients dying due to cancer

Objective

- Are FPs more likely to make home visits to the dying when patients are part of the provincial home care program (HC)?
Methods

Design
- Retrospective, population based
  - Linked multiple administrative health databases & Statistics Canada information

Subjects
- All confirmed deaths due to cancer in the Canadian province of Nova Scotia, Canada in 2003
  - Limited to:
    - Adults (>= 18 years of age)
    - Not a long term care residence during the last 6m of life

Nova Scotia (NS), Canada
- Eastern Maritime province
- Population: ~950,000
- 55% urban
- 13.6% aged 65+
- Provincial home care program introduced June 1995
Data sources

- NS Vital Statistics
- QEII Oncology Information System (OPIS)
  - Cancer registry, radiation, oncology
- NS Continuing Care, SEAscape
- NS Medical Services Insurance Physician Services
- Hospital discharge data for NS (CIHI)
- 2001 Canadian census information

Measures

Outcome
- FP home visits* (at least one versus none)

Potential co-variates
- Sex, age
- Cancer cause of death
- Total co-morbidities
- Distance to closest cancer centre
- Total inpatient days*
- Survival
- Urban or rural residency
- Neighbourhood income

* During the last 6 months of life
Analysis

- Descriptive
- Cross tabulations by receipt of FP home visit or not
- Crude and adjusted multivariate logistic regression

Results

Subjects
- 2224 eligible deaths
- 54% male
- Mean age 71 years (SD 12.6); median 73
- 27% died due to lung cancer
- 68% survived at least 121 days (4 months)
- 58% urban residency
Cancer patients receiving at least one FP home care visit

- 63.7% received at least one FP home visit
- 36.4% received none

Percent of patients with NS home care program enrolment

- 29.8% without provincial enrolment
- 70.2% with provincial enrolment
Multivariate regression results

Patients enrolled in the provincial HC programs were almost 4 times more likely to have received an FP home visit (adjOR= 3.8; 95%CI= 3.0-4.8)*

*Adjusted for: distance to cancer centre, survival, cancer cause of death, total inpatient days, urban/rural, neighbourhood income quintile

Significant covariates …

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Adjusted OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic indicator</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>1.0</td>
</tr>
<tr>
<td>Rural</td>
<td>0.7 (0.5, 0.8)</td>
</tr>
<tr>
<td>Neighbourhood income</td>
<td></td>
</tr>
<tr>
<td>Upper</td>
<td>1.0</td>
</tr>
<tr>
<td>Upper-middle</td>
<td>1.1 (0.8, 1.4)</td>
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<tr>
<td>Middle</td>
<td>0.9 (0.7, 1.2)</td>
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<tr>
<td>Lower-middle</td>
<td>0.8 (0.6, 1.0)</td>
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<tr>
<td>Low</td>
<td>0.7 (0.5, 1.0)</td>
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<tr>
<td>Cancer cause of death (e.g. selected sites)</td>
<td></td>
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<tr>
<td>Colorectal</td>
<td>1.0</td>
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<tr>
<td>Lung</td>
<td>0.7 (0.5, 1.0)</td>
</tr>
<tr>
<td>Breast</td>
<td>0.7 (0.4, 1.0)</td>
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<tr>
<td>Prostate</td>
<td>0.6 (0.3, 0.9)</td>
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</tbody>
</table>
Significant covariates:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Adjusted OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance to closest cancer centre (km)</td>
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<tr>
<td>0-10</td>
<td>1.0</td>
</tr>
<tr>
<td>11-50</td>
<td>1.1 (0.8, 1.4)</td>
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<tr>
<td>50-120</td>
<td>1.4 (1.0, 1.8)</td>
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<tr>
<td>121+</td>
<td>1.7 (1.3, 2.4)</td>
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<tr>
<td>Survival (days)</td>
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</tr>
<tr>
<td>0-61</td>
<td>1.0</td>
</tr>
<tr>
<td>62-120</td>
<td>1.6 (1.1, 2.4)</td>
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<tr>
<td>121-183+</td>
<td>1.5 (1.2, 2.0)</td>
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<tr>
<td>Total inpatient hospital days</td>
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</tr>
<tr>
<td>0</td>
<td>1.0</td>
</tr>
<tr>
<td>1-14</td>
<td>0.5 (0.3, 0.6)</td>
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<tr>
<td>15-31</td>
<td>0.4 (0.3, 0.6)</td>
</tr>
<tr>
<td>32+</td>
<td>0.3 (0.2, 0.4)</td>
</tr>
</tbody>
</table>

Discussion

- Although not prospective research, it appears that of patients who die and who were part of the Provincial homecare program, they were substantially more likely to have had family physician participation “in-home” care.
- This is good news from the “integrated” Palliative Care Program perspective: interdisciplinary and both primary/secondary services involved
Discussion

- Rural patients and those from lower income areas less likely to receive home visits
- Those at great distances (be they rural or not) to a cancer centre were more likely to receive home visits
- Continuing challenge to provide care at home for those with short survival