Addressing evidence treatment gaps for cardiovascular disease through primary care collaboration

Kevin P McNamara, Edward D Janus, Benjamin Philpot, Tiina Laatikainen, James A Dunbar

Author affiliations
(1) Greater Green Triangle University Department of Rural Health, Flinders University and Deakin University, Warrnambool, Australia.
(2) Faculty of Pharmacy and Pharmaceutical Sciences, Monash University, Melbourne, Australia.
(3) Department of Medicine, University of Melbourne, Western Hospital, Footscray, Australia.
(4) National Institute for Health and Welfare, Finland.
Kevin McNamara (1,2), Edward D Janus (1,3), Benjamin Philpot (1), Tiina Laatikainen (1,6), James A Dunbar (1).

Rationale
- Evidence treatment gaps for CVD prevention and management
  - Briganti et al, 2003; Simons et al, 2008; Simons et al, 1996; Janus, 2007; Greater Green Triangle University Department of Rural Health, 2006
- Barriers to GPs delivering preventive health
- Evolving role of community pharmacist (CP)

Aim of research
- To establish frequency of contact with general practitioners (GPs) and community pharmacists (CPs) by patients with uncontrolled CVD risk factors.

Setting
- Wimmera, Victoria
  - Rural, farming area

Methods
- Electoral roll age/sex random sample from Wimmera aged 25-84 years
  - GGT Risk factor studies previously described
- 723/1425 (49%) participated (final sample = 694)
- Specific questions on GP and CP use:
  - How many times have you visited a GP in the past 12 months?
  - How many times have you visited a CP for health reasons in the past 12 months?
- Age-standardised presentation of results
Data collection

1. Self-completed questionnaire
   - Demographics
   - Use of health services
   - Medical history
   - Medicines used
   - Diet and alcohol
   - Smoking
   - Physical activity

2. Anthropometric and laboratory measurements
   - Blood pressure
   - Cholesterol
   - Fasting blood glucose
   - Body Mass Index (BMI)
   - Waist and hip measurement

Results

- Overall average 4.6 GP visits vs. 6.0 CP visits/annum

<table>
<thead>
<tr>
<th>CP visits</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP visits</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1+</td>
<td>1+</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of visits</th>
<th>&lt;15% CVD risk (NZ)</th>
<th>&gt;=15% or CVD history</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP</td>
<td>FPG&lt;7</td>
<td>FPG&gt;=7</td>
</tr>
<tr>
<td>CP</td>
<td>FPG&lt;7</td>
<td>FPG&gt;=7</td>
</tr>
</tbody>
</table>

**GP and CP visiting crossovers**

- Overall average 4.6 GP visits vs. 6.0 CP visits/annum
**Diet quality**

<table>
<thead>
<tr>
<th></th>
<th>GP visits</th>
<th>CP visits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlation</td>
<td>p-value</td>
</tr>
<tr>
<td>Healthy food</td>
<td>0.098</td>
<td>0.114</td>
</tr>
<tr>
<td>Convenience food (1 item missing)</td>
<td>-0.095</td>
<td>0.017</td>
</tr>
</tbody>
</table>

**Discussion**

- Frequent opportunities for intervention in pharmacy, especially:
  - High or very high overall risk (primary onset)
  - Uncontrolled diabetes, pre-diabetes

- Growing evidence for Australian CP involvement in multiple risk factor detection and management (McNamara et al., 2009; Emerson et al., 2007; Kas et al., 2006; Clifford et al., 2005; Hourihan et al., 2003)
  - But what happens during routine care?

**Implications for practice**

- Collaboration required - limited interaction in current CP-GP programs
- Electronic records?
- Routine pharmacy practice for awareness and screening messages
  - Currently underused?
  - Incentives?
  - Medicare items for CP CVD services?

**Acknowledgements**

- Ms Anna Chapman, Dr Andrew Baird, the nurses
- Funding of rural pharmacy academic position by the Commonwealth Department of Health and Aging through the Fourth Community Pharmacy Agreement

**References**

- Clifford RM, Davis WA, Batty KT, Davis TME. Effect of a Pharmaceutical Care Program on Vascular Risk Factors in Type 2 Diabetes. Diabetes Care 2003;26(4):771-76
- Emerson L, Krass I. A Collaborative, Interdisciplinary Evidence Based Approach to Reducing Coronary Heart Disease in Rural Areas. Canberra: Pharmacy Guild of Australia 2006