AnticiPal: Searching GP records and care-planning in the community

Bruce Mason¹, Kirsty Boyd¹, John Steyn², Marilyn Kendall¹, Stella Macpherson³, Scott A. Murray¹

¹ University of Edinburgh, ² NHS Lothian, ³ PPI representative
AnticiPal

• Developing an algorithm to search UK GP databases
• 1: 2013-14. Test the concept with a search template informed by Supportive and Palliative care Indicator Tool (SPICT).¹
  • Plug-in to current software
  • Run on demand: “app” model.
  • Disseminate to NHS Lothian practices as part of a Redesign Programme

## GP databases

Searchable list of Read codes based on consultation outcomes.

<table>
<thead>
<tr>
<th>Malignancy codes</th>
<th>Within last 18 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>• E.g. Malignant neoplasm of bronchus or lung (B22z)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other single Read codes</th>
<th>Entered at any time</th>
</tr>
</thead>
<tbody>
<tr>
<td>• E.g. Frailty (2Jd)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Combination codes</th>
<th>Entered any time</th>
</tr>
</thead>
<tbody>
<tr>
<td>• E.g. Heart Failure AND (CKD 4 OR CKD 5) AND COPD.</td>
<td></td>
</tr>
<tr>
<td>• G58% AND (1Z13 or K054 or 1Z14 or K055) AND (H3; or H31% excl H3101 or H31y0 or H3122; or H32%; or H36-H3z (excl H3y0 or H3y1); or H5832</td>
<td></td>
</tr>
</tbody>
</table>
Case finding for new cases living at home

- Exclusion: patient already on a palliative care register
- Exclusion: patient living in a care home.
Principles

- **On-demand**
  - search is run by clinicians when they want it.

- **Up to date**
  - search is run on live data in the GP database.

- **Simple**
  - Easy to run and simple output

- **Supplemental**
  - does not replace clinician judgement.
  - List not scored or ranked in any way.
AnticiPal Process

Run AnticiPal
• List of names screened prior to review.

Review Names
• Patients on list assessed for anticipatory or palliative care.

Update list
• Actions assigned and documented
Outcomes

Palliative care
- Patient considered in need of generalist or specialist palliative care.
- Patient added to palliative care register

Anticipatory care
- Patient could benefit from additional anticipatory care or is “pre-palliative”
- Anticipatory care plan started or reviewed

Current care
- Patient has anticipatory care in place and does not need any additional input but is at risk of unexpected deterioration.
- Patient left on list with no action taken.

No need to review
- Patient does not need reviewing unless something changes.
- Patient is removed from list for 1 year unless a new triggering code is added.

Inappropriate
- Patient should not be on list.
- Removed from list and coding checked for errors. Will not be matched again unless a new code triggers.
Integrating SPICT™

AnticiPal
- Searches complete database for new cases quickly – less than 5 minutes
- Data that can be searched is partial
- Output is a list for review not an assessment of any given patient.

Run AnticiPal
- List of names screened prior to review.

Review Names
- Patients on list assessed for anticipatory or palliative care.

Update list
- Actions assigned and documented

SPICT™
Sophisticated tool for assessing an individual patient
Assists a clinician when using their clinical expertise and knowledge of a patient.
Results – patients identified

<table>
<thead>
<tr>
<th>search results</th>
<th>IP1</th>
<th>IP2</th>
<th>IP3</th>
<th>IP4</th>
<th>IP5</th>
<th>IP6</th>
<th>IP7</th>
<th>IP8</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients matched</td>
<td>55</td>
<td>29</td>
<td>63</td>
<td>69</td>
<td>78</td>
<td>41</td>
<td>106</td>
<td>71</td>
<td>512</td>
</tr>
<tr>
<td>List size</td>
<td>4459</td>
<td>3086</td>
<td>9971</td>
<td>10832</td>
<td>9367</td>
<td>6766</td>
<td>10847</td>
<td>7380</td>
<td>62706</td>
</tr>
<tr>
<td>Percentage ID'd</td>
<td>1.23%</td>
<td>0.94%</td>
<td>0.63%</td>
<td>0.64%</td>
<td>0.83%</td>
<td>0.61%</td>
<td>0.98%</td>
<td>0.96%</td>
<td>0.82%</td>
</tr>
</tbody>
</table>
## Combination search results

<table>
<thead>
<tr>
<th>Combination search</th>
<th>IP1</th>
<th>IP2</th>
<th>IP3</th>
<th>IP4</th>
<th>IP5</th>
<th>IP6</th>
<th>IP7</th>
<th>IP8</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver Disease &amp; Spirnolactone</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>9</td>
<td>7</td>
<td>11</td>
<td>0</td>
<td>14</td>
<td>49</td>
</tr>
<tr>
<td>Fractured Neck of Femur</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>19</td>
<td>1</td>
<td>42</td>
</tr>
<tr>
<td>Heart Failure/COPD/CKD</td>
<td>8</td>
<td>12</td>
<td>16</td>
<td>54</td>
<td>23</td>
<td>15</td>
<td>45</td>
<td>18</td>
<td>191</td>
</tr>
<tr>
<td>PVD + CKD (4 or 5)</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Difficulty swallowing + dementia</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Housebound + dementia</td>
<td>14</td>
<td>5</td>
<td>26</td>
<td>24</td>
<td>28</td>
<td>14</td>
<td>58</td>
<td>18</td>
<td>187</td>
</tr>
<tr>
<td>Housebound + multimorbidity</td>
<td>14</td>
<td>119</td>
<td>28</td>
<td>77</td>
<td>64</td>
<td>50</td>
<td>171</td>
<td>109</td>
<td>630</td>
</tr>
</tbody>
</table>
Results Qualitative observations

GP categories of patients identified

1. “Definitely not palliative”
2. “Not palliative yet”
3. “Would benefit from palliative care but I can’t intervene”
4. “Definitely palliative”

Categories 2 & 3 are candidates for anticipatory care.
Conclusions

• Algorithm succeeds at identifying patients likely to have early palliative care (anticipatory) care needs.
• An easy to use, simple to understand, run-on-demand “plugin” matches primary care team needs.
Acknowledgements

Thanks to our funders, Marie Curie, The Edinburgh & Lothians Health Foundation and the OAK Foundation.

Thanks also to all participants in this project and also to the IT staff at NHS Lothian who supported us so ably.

Questions? Please contact Scott Murray (Scott.Murray@ed.ac.uk) or Bruce Mason (Bruce.Mason@ed.ac.uk)