Symptom prevalence and help seeking among patients at risk of lung cancer: An exploratory feasibility study in a primary care population

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Background

• Patients with symptoms indicative of lung cancer often fail to interpret symptoms/ delay presentation

• Programme of work at University of Southampton Early Diagnosis of Lung cancer (EDLC) research group.

• Research focus on:
  – The prevalence of symptoms indicative of lung cancer
  – Events prior to lung cancer diagnosis (Corner & Brindle 2010; Corner et al 2005, Brindle 2007)
  – Interventions in primary care to promote early diagnosis (IPCARD, Brindle et al)
Background: pathways to diagnosis (Corner et al 2005)

Study aims and objectives

1. Examine the feasibility of administering a modified symptom, risk and co-morbidities questionnaire (IPCARD, Brindle et al) in primary care population
2. Evaluate symptom prevalence and patterns/complexes that may warrant GP review
3. Explore help-seeking intentions of symptomatic patients, and factors that might inhibit/promote help-seeking
4. Examine help-seeking behaviour and outcomes among individuals experiencing symptoms
**Study design:** Mixed methods, two phases

**Phase 1:** Administration of questionnaire:
- Planned sample size: n=600 (assumed response rate of 10-15%)
- 8 GP practices (5 PCTs) to 5000 patients
- Eligibility criteria: >50 yrs, Smoking history, no active treatment for cancer
- 12 months medical notes review: Consultation frequency/ presenting symptoms/ GP actions, lung cancer cases

**Phase 2:** Interviews with a purposive sub-sample (n=45) to seek views on:
- Symptom interpretation
- Reasons for seeking/ not seeking help for symptoms
- GP focus groups to identify symptom thresholds for medical review

**Phase 1: Response to questionnaire**
- Higher number of eligible patients (n=7424, 1:9.7) than had been expected (n=4518, 1:16)
- Higher than expected response rate (26%, n=1210 completed questionnaires)
- Response rates ranged between 20.3 – 29.6% across sites
Proportion of population responding: gender and social deprivation

<table>
<thead>
<tr>
<th>Gender</th>
<th>Responders</th>
<th>Non-responders</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>26.1%</td>
<td>73.9%</td>
<td>p=.429</td>
</tr>
<tr>
<td>Female</td>
<td>24.8%</td>
<td>75.1%</td>
<td></td>
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</tbody>
</table>

Social deprivation

<table>
<thead>
<tr>
<th>IMD score (mean)</th>
<th>17.8106</th>
<th>17.76966</th>
<th>p=0.904</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD rank (mean)</td>
<td>16897.44</td>
<td>17006.61</td>
<td>p=0.685</td>
</tr>
</tbody>
</table>

Proportion of population responding by age category: (p=.001)
No. of respondents reporting each symptom

- Fatigue: 29.6%
- Breathing: 26.9%
- Chest pain: 24.9%
- Cough: 14.2%
- Voice changes: 10.3%
- Chest infections: 7.2%
- Weight loss: 7.2%
- Sweats: 7.1%
- Haemoptysis: 0.1%

No. of symptoms reported by respondents (n=1210)

<table>
<thead>
<tr>
<th>No. of symptoms</th>
<th>N=, (%)</th>
<th>Accumulative % (ascending)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>474 (39.2%)</td>
<td>100%</td>
</tr>
<tr>
<td>1 or 2</td>
<td>483 (39.9%)</td>
<td>60.7%</td>
</tr>
<tr>
<td>3+</td>
<td>251 (20.8%)</td>
<td>20.8%</td>
</tr>
</tbody>
</table>
Conclusions

• *Feasibility of risk assessment questionnaire*:
  – Pts with multiple symptoms are prepared to complete the questionnaire.
  – Little variation in return rates re: IMD/gender, but small differences with age
  – 11% (at risk) pts not in contact with GP

• *Symptom prevalence amongst the sample*:
  – Greater than expected proportion of eligible patients
  – Responders report a high degree of symptomology
Next steps

• 12m medical notes r/v to record consultation frequency and identify patients most/least likely to seek help

• Multivariate regression analysis to develop predictive model for patient consultations

• Continue patient interviews to develop theoretical insights into factors that promote/inhibit help seeking behaviour

• GP focus groups to identify thresholds for severity and duration of symptoms for GP review

References


