Electronic screening for cancer pain and other symptoms: fit for the future?

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Background

• An estimated 30–75% of people with cancer experience pain and it is under-treated in up to half of cases (van den Beuken-van Everdingen, 2007).

• Strong evidence patient centred outcome measures (PCOM) allow more responsive holistic care (Etkind, 2014).

• PCOM shown to improve psychological and emotional QoL.

• PCOM alerts remind clinicians to focus attention on areas of patient concern.
Introduction

• Pain management needs complex intervention as defined by the Medical Research Council Framework.
• Guideline for cancer pain developed according to framework (Australian Adult Cancer Pain Management Guideline Working Party, 2010).
• Assessment of pain at each clinical encounter.
• We need implementation strategies to promote uptake and adherence.
• Here we report pilot of implementation strategies to assess feasibility and acceptability for future RCT. This talk reports on screening of patients for pain and other symptoms.
Participants

• We screened patients presenting to outpatient clinics over a three month period.
• Advanced stages of cancer and other life limiting diseases.
• Community patients attending clinics for the assessment and management of pain and other symptoms.
• Assessed by the multi-disciplinary community palliative care team (Palliative Care CNC, Palliative Care Specialist, physiotherapist, occupational therapist, community nursing, spiritual care and social worker).
Pain and symptom screening

- Edmonton Symptom Assessment System (ESAS).
- 0-10 numeric rating scale (NRS) ranging from 0 (no symptom) to 10 (worst possible symptom).
- We assessed 14 NRS and one open ended question.
- Including the measures of anxiety, depression and best well-being.
Patient screening

Paper based

Electronic

QUICATOUCH
QUICATOUCH

- QUICATOUCH (computer program) to capture screening data.
- Previously used for the routine screening of pain and symptoms of distress (Clover, 2013).
- Accessed via wifi from secure URL (https) hosted by HammondCare (HC)
- Screening data stored on HC mainframe server.
- Data collectors assigned unique access names and passwords.
- The patient identifiers were date of birth (DOB), hospital MRN and date of assessment.
Clinician email alert

**MRN:** 930063  
**Doctor's Name:** Dr Melanie Lovell  
**DOB:** 14/08/1955  
**Gender:**  
**Cancer Site:**  

Scores of 2 or more for pain indicate further assessment is needed. For more information on Pain Management Guidelines, please go to http://wiki.cancer.org.au/australia/Guidelines:Cancer_pain_management

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Score</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worst pain in last 24 hours</td>
<td>0</td>
<td>0-10</td>
</tr>
<tr>
<td>Least pain in last 24 hours</td>
<td>0</td>
<td>0-10</td>
</tr>
<tr>
<td>Pain - Average</td>
<td>0</td>
<td>0-10</td>
</tr>
<tr>
<td>Pain - Now</td>
<td>0</td>
<td>0-10</td>
</tr>
<tr>
<td>Tiredness - Now</td>
<td>7</td>
<td>0-10</td>
</tr>
<tr>
<td>Drowsiness ? Now</td>
<td>0</td>
<td>0-10</td>
</tr>
<tr>
<td>Nausea - Now</td>
<td>0</td>
<td>0-10</td>
</tr>
<tr>
<td>Lack of appetite - Now</td>
<td>0</td>
<td>0-10</td>
</tr>
<tr>
<td>Shortness of breath - Now</td>
<td>0</td>
<td>0-10</td>
</tr>
<tr>
<td>Depression - Now</td>
<td>0</td>
<td>0-10</td>
</tr>
<tr>
<td>Anxiety - Now</td>
<td>0</td>
<td>0-10</td>
</tr>
<tr>
<td>Well-being - Now</td>
<td>2</td>
<td>0-10</td>
</tr>
<tr>
<td>Trouble sleeping -Now</td>
<td>0</td>
<td>0-10</td>
</tr>
<tr>
<td>Problems passing bowel actions</td>
<td>5</td>
<td>0-10</td>
</tr>
<tr>
<td>Satisfaction with current bowel habits</td>
<td>1</td>
<td>0-4</td>
</tr>
<tr>
<td>Breathlessness</td>
<td>0</td>
<td>0-4</td>
</tr>
</tbody>
</table>
Role of CNC patient screening

• Integrally involved in patient screening.
• Administered the electronic and paper based screening.
• Screening conducted during CNC consultation with the patient.
• Logged into QUICATOUCH and selected the clinician (to email ESAS scores) and entered in patient MRN and DOB.
• Assisted patients to complete screening.
• Paper-based version available when wifi not accessible or intermittent.
Results

• During the three month screening trial, screening was performed 429 times.
• Patient ages ranged from 32 to 97 years.
• Paper based screening was used more frequently 64% vs. 36%
So what happened?

- Electronic screening (ES) was time consuming to administer.
- ES took valuable time from the CNCs consultation.
- CNCs felt they had to stay with the patient while they completed ES.
- Some patients with peripheral neuropathy worried about pressing too hard and breaking the screen.
- Other patients did not understand the 0-10 NRS.
- Paper screening was quicker and easier to administer.
- CNCs reported patients could be left alone with the ‘paper’ version.
Electronic screening challenges

- Significant financial costs in terms of staff time to resolve design and technical issues.
- Set up involved multiple steps (logging into secure https site, entering patient identifiers).
- QUICATOUCH displayed each NRS question on separate screen (this could not be changed).
- Did not automatically refresh and save when question answered and required another step which confused patients.
- The electronic screening could take up to 12 minutes.
IT challenges

• Security issues were time-consuming to resolve.
• Non-linkage with eMR is very significant.
• Email congestion delayed real time email alert delivery.
• With ever growing concerns of data security, working across government and private sites could be problematic in the multiple site study.
Future considerations for ES

• Not efficient unless the data links in with the existing hospital data collections.
• ES tool needs to align with routine practice requirements.
• More discussion and review of new screening procedures is needed prior to commencement.
• ES must be self-explanatory as far as possible with minimal training time needed for patients.
Future ES design considerations

- Include pain categories (mild, moderate and severe) with NRS scale to enhance patient understanding.
- Display more than one question per screen.
- Automatically save and refresh after the last question on screen answered.
- Consider developing pain screening app (accessible from iPad or another generic table device).
Where to from here with screening

• ES symptom screening remains resource intensive
• Routine pain and symptom screening was well received by patients.
• Clinicians reported the ESAS scores helped to focus consultation on the areas of concern for the patient.
• Clinicians did not mind how they received the ESAS scores (electronically or paper) as long as they got them.
• Until ES becomes more widely available, pain and symptom screening can done using traditional pen and paper.
References


Acknowledgements

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AUSTRALIAN CLINICAL PATHWAY FOR SCREENING, ASSESSMENT AND MANAGEMENT OF CANCER PAIN IN ADULTS

Screen for pain
- No pain
- Pain ≥ 2 on 0–10 rating scale or ≥ 3 on Abbreviated Pain Scale if cognitively impaired

Comprehensive assessment
- Exclude oncological emergencies
- Assess for psychological distress

Pain scale
10  Worst pain
  5  Moderate
  0  No pain

New pain or sudden, unexpected change in intensity

Pain continues ≥ 2

C Communication
   and care giver/patient education for self-management

P Pharmacological management

A Anti-cancer therapy

I Intervventional therapy for non-responsive severe pain

N Non-pharmacological management

Review pain control (for severe pain within 24 hours)

NOTE:
- Special care is needed for people who:
  - are elderly
  - have comorbidities such as renal or hepatic impairment, low platelets, or peptic ulcer disease
  - are undergoing surgery
  - do not speak English
  - are at high risk of opioid misuse

Regular analgesia
- Breakthrough analgesia (including for incident pain)
  - 1/6th of daily dose
- Laxatives and PRN anti-emetics
  - Manage adverse affects
- Adjuvants (e.g. for neuropathic pain)