

# 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.

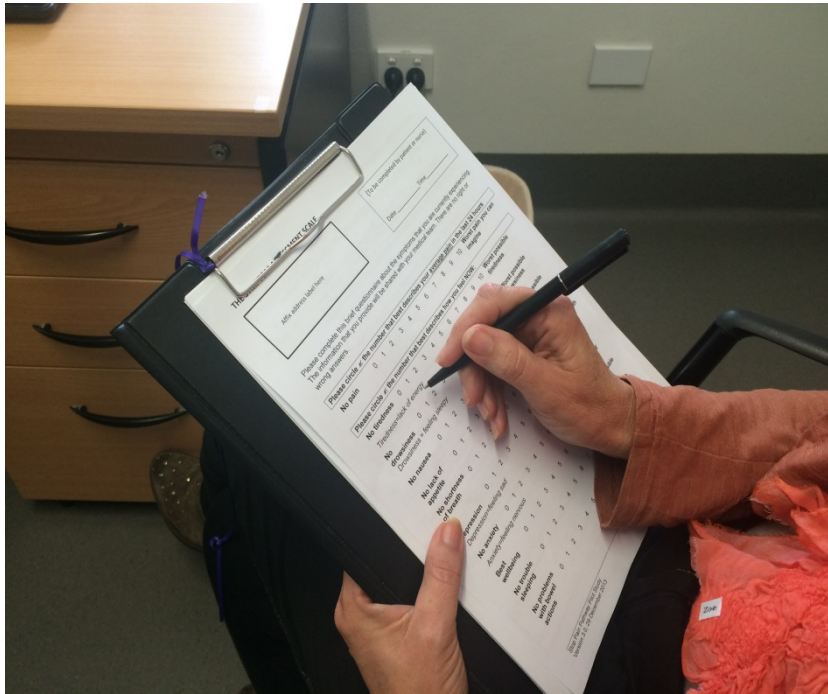
# Introduction

- 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).

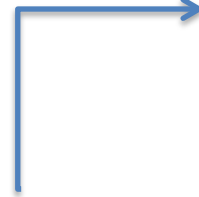
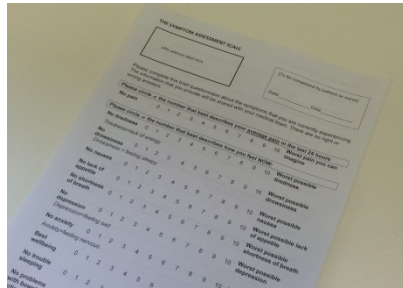
# Pain and symptom screening



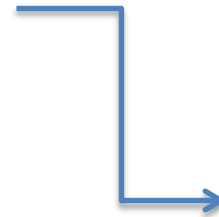
- Edmonton Symptom Assessment System (ESAS).
- 0-10 numeric rating scale (NRS) ranging from 0 (no symptom) to 10 (worst possible symptom).
- We assessed 14 NRS and one open ended question.
- Including the measures of anxiety, depression and best well-being.

# 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

**DOB:** 14/08/1955

**Doctor's Name:** Dr Melanie Lovell

**Gender:**

**Cancer Site:**

**Cancer Stage:**

*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](http://wiki.cancer.org.au/australia/Guidelines:Cancer_pain_management)*

| Symptom                                | Score | Score Range |
|--|-------|-------------|
| Worst pain in last 24 hours            | 0     | 0-10        |
| Least pain in last 24 hours            | 0     | 0-10        |
| Pain - Average                         | 0     | 0-10        |
| Pain - Now                             | 0     | 0-10        |
| Tiredness - Now                        | 7     | 0-10        |
| Drowsiness ? Now                       | 0     | 0-10        |
| Nausea - Now                           | 0     | 0-10        |
| Lack of appetite - Now                 | 0     | 0-10        |
| Shortness of breath - Now              | 0     | 0-10        |
| Depression - Now                       | 0     | 0-10        |
| Anxiety - Now                          | 0     | 0-10        |
| Well-being - Now                       | 2     | 0-10        |
| Trouble sleeping -Now                  | 0     | 0-10        |
| Problems passing bowel actions         | 5     | 0-10        |
| Satisfaction with current bowel habits | 1     | 0-4         |
| Breathlessness                         | 0     | 0-4         |



# 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 preformed 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

van den Beuken-van Everdingen MH, de Rijke JM, Kessels AG, Schouten HC, van Kleef M, Patijn J. [Prevalence of pain in patients with cancer: a systematic review of the past 40 years.](#) Ann Oncol 2007 Sep;18(9):1437-49

Australian Adult Cancer Pain Management Guideline Working Party. Cancer pain management in adults. Sydney: Cancer Council Australia. URL: <http://wiki.cancer.org.au/australiawiki/>

Etkind SN, Daveson BA, Kwok W, Witt J, Bausewein C, Higginson IJ, et al. Capture, Transfer, and Feedback of Patient-Centered Outcomes Data in Palliative Care Populations: Does It Make a Difference? A Systematic Review. J Pain Symptom Manage. 2014.

Clover, K., Carter, G., McElduff, P. (2013) Screening for pain and distress with QUICATOUCH. <http://www.cancerinstitute.org.au/abstracts/screening-for-pain-and-distress-with-quicatouch>

# Acknowledgements

- Cancer Council Australia
- Northern Translational Cancer Research Grant
- Pfizer Research Grant
- Ritchie Foundation





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

