Evaluation of the timeliness of a multidisciplinary assessment of breathlessness in palliative care: a Stanford Quality Improvement Project

Dr Angela Rao, Dr Elaine Gallagher, Dr Jake Mickelsen, Ms Carmen Sanchez, Ms Felicity Forby, Ms Kate Andrews, A/Prof Annmarie Hosie, Dr Michelle DeNatale, Prof Meera Agar
• Breathlessness reduces functional capacity and quality of life
• Increases risk of death by 80% in people with advanced cancer
• Is systematically under-recognised and under-treated in palliative care
• Assessment of breathing related-distress is essential to address psychosocial issues and cognitive processes that drive breathlessness

(Connor, Morris et al. 2020; Weingaertner, Scheve et al. 2014; Maddocks, Lovell et al. 2017)
Local problem

• One fifth of people admitted to home community palliative care services with moderate to severe breathing related distress did not have their breathlessness re-assessed or documented within 7 days

(Palliative Care Outcomes Collaborative 2020: Phase Report Calvary Sydney - Community)

*The service was not providing adequate responsive care for patients with breathing related distress*
# Symptom Assessment Scale

Please use this form to tell us about the symptoms that bother, worry or distress you. This information will help us to meet your needs.

**Absent**  
0  
**Mild**  
1  2  3  
**Moderate**  
4  5  6  7  
**Severe**  
8  9  10

1. Write the day or date in the first row.  
2. Use the scale above to choose a number between 0 and 10 that shows how bothered, worried or distressed you are.  
3. You can add other symptoms in the blank space at the bottom of the list.

<table>
<thead>
<tr>
<th>Date/Day</th>
<th>Difficulty sleeping</th>
<th>Appetite problems</th>
<th>Nausea</th>
<th>Bowel problems</th>
<th>Breathing problems</th>
<th>Fatigue</th>
<th>Pain</th>
</tr>
</thead>
</table>
Aim: SMART Goal

Between 01 May and 31 September 2021, we will increase the proportion of patients with moderate or severe breathing-related distress* on admission to home community palliative care services who have a repeat assessment within 7 days from 34% to 90%

*PCOC SAS breathlessness score ≥4

PCOC: Palliative Care Outcomes Collaboration; SAS: Symptom Assessment Scale
Team Members

Dr Angela Rao (RN, PhD)
Team leader

Dr Elaine Gallagher (MBBS, MRCP, DipPallMed – CMO CPCT)

Kate Andrews (BAppSc (Phty))
Physiotherapist

A/Prof Annmarie Hosie (RN, PhD)
Mentor

Felicity Forby (BAppSc OT)
Occupational Therapist

Carmen Sanchez RN MNP
Nurse Practitioner

Prof Meera Agar (MD, PhD)
Mentor
Methods

MEASUREMENT

Should we be entering breathlessness assessment into PalCentre?
What measure should we use? PCOC SAS or breathing, thinking, functioning assessment
Who should complete BTF assessment? Physiotherapist who specialises in respiratory assessment?
Nurses to integrate BTF assessment into usual practice? For which patients? Those who screen SAS ≥4 or all patients?
Habitual practice of entering scores (30%)

MATERIALS

Technological issues of access to PalCentre software to enter scores
Discussion of the use of an app/laptop to facilitate ease of data entry. Staff have laptops but on the road it is ‘clunky’ and software is slow to load (10%)

ENVIRONMENT

Resourcing of AHPs prioritised to screen and address immediate respiratory, end of life care and falls risk issues due to high volume of acutely unwell patients, urgent need for equipment delivery
Variable to inconsistent capacity to prioritise scores in the lower moderate range (10%)

METHODS

Training needed on how to enter PCOC SAS scores into PalCentre (10%)
No benchmark time point for repeat breathlessness assessment
Paper based referral system (allied health)
No automated referral process for moderate SAS breathlessness scores
Unclear on referral that case manager wants AHPs to focus on dyspnoea

PERSONNEL

Screening delays due to part time medical and allied health staffing
Workload: staff shortages present inability to focus on lower scores due to competing crises (50%)

PROBLEM
Repeat breathlessness assessment not completed within 7 days
### Methods

<table>
<thead>
<tr>
<th>EFFECT: Delays (&gt;7 days) in the reassessment of moderate to extremely severe breathlessness SAS scores</th>
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</thead>
<tbody>
<tr>
<td><strong>CAUSE CATEGORY</strong></td>
</tr>
<tr>
<td><strong>Measurement</strong></td>
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<td></td>
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<tr>
<td></td>
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<tr>
<td><strong>Environment</strong></td>
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<td><strong>Methods</strong></td>
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<td><strong>Materials</strong></td>
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<tr>
<td><strong>Personnel</strong></td>
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</tbody>
</table>

1. Consistency of practice in scoring (i.e. scoring distress and not the severity of breathlessness) and action to scores

2. Preventative mindset (proactive, not reactive). Assess scores before a crisis situation arises.

3. Timely allied health breathlessness referral where applicable - eliminate referral lag

4. Nursing and allied health staff to create a habitual practice of entering SAS scores at each assessment
Methods

Nursing and allied health staff to create a habitual practice of entering SAS scores at each assessment.

- SAS scores breathlessness to be entered on PalCentre, even if score is zero (All staff)
- Access for all allied health staff to PalCentre Kate (PT and OT access)
- PCOC representative to provide inservice to allied health staff to facilitate PalCentre uptake Martin

PalCentre software
Methods

Key Drivers

1. Consistency of practice in scoring (i.e. scoring distress and not the severity of breathlessness) and action to scores

2. Preventative mindset (proactive, not reactive). Assess scores before a crisis situation arises.

3. Timely allied health breathlessness referral where applicable - eliminate referral lag

4. Nursing and allied health staff to create a habitual practice of entering SAS scores at each assessment

Interventions/ Countermeasures

- SAS scores breathlessness to be entered on PalCentre, even if score is zero (All staff)
- Access for all allied health staff to PalCentre Kate (PT and OT access)
- Repeat CPCT education session w. case study F/E/C/A.
- Blue sticker added to journey board to flag new breathless patients (L2) Carmen
- PCOC representative to provide inservice to allied health staff to facilitate PalCentre uptake Martin
- CPCT in-service/education May 10 - facilitate allied health/nursing buy in and CPCT nursing ownership of SMART goal Leanne (CPCT)/ Angela/ Elaine/Carmen
- Collate fortnightly data (Friday) to present to weekly CPCT team meeting (Monday) Angela
- Weekly education and support for correct PCOC score entry, revision of entered scores for all CPCT patients Elaine
- Develop flowchart of what to do if SAS breathlessness score ≥4 Elaine (L2)
- Attempt to automate PCOC SAS score data collection Martin/Elaine (L3)
Results: Baseline

Proportion of breathlessness scores in 2020 was 34%
Proportion of breathlessness scores entered before any interventions was 50%
Methods

Proportion of new community patients with SAS breathlessness scores ≥4 on admission with repeated SAS breathlessness scores within 7 days

- Secondary Measure
- Primary Measure
- Process Mean
- Target

Date by month

- CPCT inservice 10/5
- ~44% (4/9) reduction in CPCT nursing staff
- CPCT nursing staff shortage 11% (1/9)
- CPCT inservice scheduled 28/6 with case Study presentation (Felicity)
Breathing distress score ≥4

Assessment of cause/severity inc. physical assessment

Is dyspnoea in keeping with known disease and no reversible factors i.e. infection that need to be addressed

Escalate to discuss if further investigation, treatment or admission warranted

Nursing intervention (BTF), advice on current medication use

Consider referral to AHP for energy conservation, functional assessment, breathlessness management plan,

Consider need for medical discussion re medications/review

Follow up intervention within 7 days or earlier, as appropriate

**Document Score on palCentre**
Assess Patient either by phone or in person at each clinical interaction

Educate patient and record SAS distress scores

Use clinical judgement to complete PCPSS scores drawing on SAS, patient wishes/engagement in plan, psychosocial Ax, AKPS, RUG

Remember 4 trumps all other phases: if dying in days should be phase 4

Phase Determined by highest PCPSS score

Initial Action

Follow up

PCPSS

Psychosocial and family assessment

SAS 0

SAS 1-3

SAS 4-7

SAS 8-10

RUG↑ or AKPS↓

PCPSS Impacts the ‘other’ section of PCPSS

?ONGOING NEED/MONITOR

KEEP CURRENT PLAN MONITOR

INTERVENE AND REVIEW

URGENT INTERVENTION

Continue current plan of care with limited need to monitor 0 (absent severity)

Current care plan working / patient not wanting alternate intervention.

1 (mild severity)

Discuss potential d/c with MDT

Monitor as appropriate

Enact plan change

i.e. referrals, AHP involvement, investigations, therapeutic discussions / interventions or medication changes

Urgent change of plan by involving medical or AHP teams as appropriate

Follow up within 24hrs

Remain in Phase 2 until SAS scores <4 or PCPSS <2

NB phase 2 should either become 1 or 4 NOT 3

At least every month, more frequently if required consider if appropriate for clinic

Urgent intervention required to change plan of care 3 (severe severity)

Intervention followed up within the next 7 days

0 (absent severity)

1 (mild severity)

2 (moderate severity)

3 (severe severity)

4 (severe severity)

Keep current plan of care

with limited need to monitor

Current care plan working / patient not wanting alternate intervention.

Discuss potential d/c with MDT

Monitor as appropriate

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Proportion of new community patients with breathing-related distress scores ≥4 on admission with a re-assessment within 7 days

<table>
<thead>
<tr>
<th>Date by month</th>
<th>Proportion</th>
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<th>Proportion</th>
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<tbody>
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<td>14/09/2020</td>
<td>0.22</td>
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<td>23/08/2022</td>
<td>0.5</td>
<td>31/08/2022</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Proportion of SAS breathlessness scores entered within 7 days increased from 34% to 92%. Mean increase of 36% in 5 months! Total increase of 58%!
Sustainability

Old process = No process

- Initial assessment breathing score ≥4
- Variable response depending on personnel
- No unified process for action, referrals or follow up

New Process

- Initial assessment breathing score ≥4
- Follow ‘Breathing Flow Chart’
- Discuss next day in morning meeting. Patient automatically flagged as new Phase 3
- Discuss in weekly MDT meeting until no longer Phase 3 patient – indicating no further change in plan required
Sustainability

- Identify patients with moderate to severe breathing-related distress as well as other symptoms
- Review moderately distressed patients
- Fill staff knowledge gaps in accurate assessment of Symptom Assessment Scale scores
- Contemporaneous data entry
Key learning points from this project

• Identified breathless patients in need of follow up
• Identified staff support needs for breathlessness scoring and management
• Embedded processes for addressing moderate to severe breathing-related distress
Consider using the same method to address moderate to severe distress associated with other symptoms.

Consider justification for breathlessness clinic at Calvary to address unmet needs/support for symptom management.

Evaluate implementation of breathing thinking functioning assessment +/- psychological health support.
Conclusion

- The proportion of community patients with a re-assessment of breathing-related distress increased.
- Similar QI project is possible in other community palliative care teams who use PCOC SAS scores.