

Supplementary File 1: Survey Announcement

Breathlessness Action Plan Survey

Does your breathlessness become suddenly worse in a way that's frightening?



Do you use a Breathlessness Action Plan to help you manage it?

Managing breathlessness

<p>When feeling breathless</p> <ol style="list-style-type: none"> Stop what you are doing Find a resting position Use your fan or the breeze Choose your preferred breathing technique, & continue for 2-3 minutes	<p>After 2-3 minutes evaluate your breathlessness</p> <p>Are you feeling less breathless and more in control?</p> <p>Yes: Continue with your activity</p> <p>OR</p> <p>No: Take your prescribed reliever inhaler medication through a spacer, then resume breathing technique for another 2-3 minutes</p> <p> If you remain breathless, refer to your written Action Plan on the front (turn over).</p>
---	---

The above example is an excerpt from <https://lungfoundation.com.au/resources/copd-action-plan/>

Researchers are interested to hear about your experience of using a Breathlessness Action Plan

*To find out more, please use the following QR code or call the project team on **phone number***

Supplementary File 2: Questionnaires for Plan-Users and Clinicians

For Plan-Users:

7/3/25, 2:10 PM

Qualtrics Survey Software

Default Question Block

Breathlessness action plans - a questionnaire for people with COPD and their families (or other people providing support)

This is a questionnaire about the breathlessness action plan that people with COPD use to manage breathlessness that becomes suddenly worse in a way that's frightening. Please complete a separate questionnaire for each plan you have used.

If you would prefer to answer these questions via a telephone/Zoom interview, please contact the project team via breathe@uts.edu.au or 02 9514 4861.

You can find the [participant information sheet](#) here.

Please feel free to leave any questions blank that you would prefer not to answer.

Are you a person with COPD, a family member (or other person that provides support) or both together? *COPD is also known as emphysema, chronic bronchitis or chronic asthma.*

- Person with COPD
- Family member (or other person who provides support)
- Both of the above completing the survey together

What country do you live in?

- Australia
- New Zealand
- Other, please specify:

What postal code / ZIP code do you live in?

How often over the past year has breathlessness become suddenly worse in a way that was frightening?

Have you had to call an ambulance or go to the Emergency Department for any of these occasions?

- Yes
- No

What (if any) other kinds of help have you accessed either during or after these occasions? Tick all that apply.

- GP
- Practice nurse
- Respiratory service
- Palliative care service
- None
- Other, please specify:

How did you get the breathlessness action plan?

- Found it on the internet
- GP
- Respiratory service
- Palliative care service
- Pulmonary rehabilitation
- Made it myself/ourselves
- Other, please specify:

Have you received advice or support from a health professional to help you use the breathlessness action plan?

- Yes
- No
- If unsure, please specify:

Please describe your action plan, including anything you especially like about it. For example, is it easy to follow?

Please describe anything you DON'T like about the breathlessness action plan.

If you have made any changes to the action plan to make it more useful for yourself, please detail these changes below. For example, did you add something that was missing?

Of the times you've used the plan over the past year, how often did it help prevent the need to call an ambulance or go to Emergency?

- Never
- Sometimes
- Usually
- Always
- Comment (optional):

Please upload the breathlessness action plan by dragging a copy into the upload box below. If you only have a paper version, you can scan or take a photo of the plan and upload that.

If the plan is available via a website, please provide a link in the comments box below instead of uploading it. If you can't provide the plan or a link, please tell us the name/title and organisation in the comments box.

If possible, please remove any of your personal details that may be on the plan before uploading it. If you can't do this, we will remove these details when we receive it.

Add link or provide us the name/title and organisation here:

Please tell us anything else you think is relevant here:

Powered by Qualtrics

For Clinicians:

7/3/25, 2:09 PM

Qualtrics Survey Software

Questionnaire for health professionals

Breathlessness action plans - a questionnaire for health professionals

This is a questionnaire for health professionals about breathlessness action plans they recommend to and/or complete with patients with COPD to help them manage a sudden worsening of breathlessness that is not due to an acute exacerbation of COPD.

If you use more than one plan, please complete a separate questionnaire for each.

If you would prefer to answer these questions via a telephone/Zoom interview, please contact the project team via breathe@uts.edu.au or 02 9514 4861.

You can find the [participant information sheet](#) here.

Which discipline do you work in? Tick all that apply.

- Medicine
- Nursing
- Allied Health
- Other, please specify:

Which specialty do you work in? Tick all that apply.

- Respiratory and Sleep Medicine
- Specialist Palliative Care
- General Practice
- Other, please specify:

Which setting do you work in? Tick all that apply.

- Inpatient
- Outpatient
- Community
- Pulmonary rehabilitation
- Other, please specify:

What country do you work in?

- Australia
- New Zealand
- Other, please specify:

What postal code / ZIP code do you work in?

Of your patients with COPD, what proportion do you recommend the breathlessness action plan to / complete the plan with?

- All
- Most
- Some
- Only a very small proportion
- Not applicable

If the action plan is one you or your service developed, how was the content chosen? Tick all that apply.

- We didn't develop it
- Direct patient input
- Clinical experience
- Adapted from other breathlessness action plans
- Evidence or recommendations from the literature
- Other, please specify:

Of the patients who you give the plan to, what proportion do you think benefit?

- Unsure
- None
- Some
- Most
- All
- Not applicable

Conditional block 2

Published evidence for breathlessness action plans is limited. How have you monitored the effectiveness of the breathlessness action plan at your service?

Tick all that apply.

- Patients tell me whether the plan has helped them
- Families tell me whether the plan has helped them
- Survey of patients / families
- Medical record review (e.g., ED presentations, GP visits, frequency of prescriptions)
- Clinical trial
- Other, please specify:

What benefits do you think patients / families derive from the breathlessness action plan? Tick all that apply.

- Unsure
- Increased confidence / reduced anxiety
- Increased activities of daily living
- Reduced frequency of breathlessness crises / acute-on-chronic episodes
- Reduced need for ambulance / emergency department
- Other, please specify:

In your service, how is the breathlessness action plan introduced to patients for first time? Tick all that apply.

- A paper copy or weblink is provided
- A health professional explains how to use the plan
- A health professional personalises the plan to each patient / family
- A health professional checks the person's ability to use the plan (e.g., teach-back, scenario planning)
- Other, please specify:

At your service, which health professionals usually introduce the breathlessness action plan to patients / families (e.g., pulmonary rehabilitation staff, community nurse, outpatient physiotherapist, palliative care physician)

- I do it myself
- Other, please specify:

In addition to the breathlessness action plan, what other education or resources do you provide to patients / families for managing breathlessness? Please include any referrals you make for this purpose. Tick all that apply.

- Hand-held fan
- Relaxation / mindfulness resources
- Loan equipment (e.g., mobility aids)
- Dietary advice
- Exercise program
- Contact number – business hours
- Contact number – out of hours
- Other, please specify:

Why did you choose to use this particular plan rather than others that are available? Tick all that apply.

- It's the only one I know of
- It's approved for my service
- It's easy to follow for patients / families
- It allows tailoring to each patient
- Other, please specify:

Is there anything you DON'T like about the plan or feel that is missing? Please describe any modifications you've made to improve the plan.

Please upload the action plan by dragging a pdf copy into the upload box below. If you only have a paper version, you can scan or take a photo of the plan and upload that.

If the action plan is available via a website, please provide a link in the comment box below instead of uploading it. If you can't provide the plan or link, please tell us the name/title and organisation in the comments box. We will reference the authors of each plan included in our report.

Add link or provide us the name/title and organisation here:

Please tell us anything else you think is relevant here:

Powered by Qualtrics

Supplementary File 3: Detailed Analysis of Plans

Table 1. Source summary of plans included for analysis (n=69)

Source	Number of Plans (%)
Survey results	
User survey ^a	21 (30)
Clinician survey ^b	10 (14)
Scoping review	
Internet search only	34 (49)
Also included in literature search	4 (6)

^a Strategies only, as reported by respondents in free-text responses

^b Plans reported here not known from scoping review, including those created by the clinician themselves or the service they worked for

Table 2. Summary of survey respondents indicating use of a plan known from the scoping review

Known Plan from scoping review	Number of Respondents		
	Plan-user survey	Clinician survey	Total
Lung Foundation Australia COPD Action Plan (Australia)	9	12	21
Asthma and Respiratory Foundation NZ Breathlessness Strategies for COPD (New Zealand)	1	11	12
INSPIRE: Breathing Better (Australia)	0	3	3
American Thoracic Society (USA)	1	2	3
Health Resource Directory (Australia)	1	1	2
WA Country Health Service (Australia)	0	2	2
HammondCare (Australia)	0	1	1
Royal Melbourne Hospital Breathlessness Management Plan (Australia)	0	1	1
Cambridge Breathlessness Intervention Service (UK)	0	1	1
Hull University (UK)	0	1	1

Table 3. Summary of Content Analysis of Plans – Description

Plan Number	Plan	Source	Web Link	Country of Origin	Clinical Use	Targeted Audience
These NHS (UK) Plans are similar:						
Plan 1	NHS - Non Pharmacological Breathlessness Management, page 21 (UK)	Internet search	Unavailable	United Kingdom	Unspecified breathlessness	Person with breathlessness & Support Person
Plan 2	NHS Coventry and Warwickshire University Hospitals	Internet search	Unavailable	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 3	NHS Royal Papworth Hospital	Internet search	https://royalpapworth.nhs.uk/application/files/7216/4431/7931/PI_144_Breathlessness_vs3.1.pdf	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 4	NHS West Suffolk	Internet search	https://www.wsh.nhs.uk/CMS-Documents/Patient-leaflets/Physiotherapy/6350-1-Breathlessness-and-how-to-manage-it.pdf	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 5	NHS St Christopher's Hospice	Internet search	https://www.stchristophers.org.uk/managing-your-breathlessness-booklet	United Kingdom	Unspecified breathlessness	Person with breathlessness
These NHS (UK) plans are based on the Cambridge Breathlessness Intervention Service- more focussed on Breathing [ie. 3 F's in different order/graphical differences]:						
Plan 6	NHS Oxford (breathing)	Internet search	https://www.oxfordhealth.nhs.uk/wp-content/uploads/2020/03/OH-172.20-Managing-your-breathlessness-D3.pdf	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 7	NHS Cambridge University Hospitals (breathing)	Internet search	Unavailable	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 8	NHS Highland (breathing)	Internet search	Unavailable	United Kingdom	Unspecified breathlessness	Person with breathlessness
These NHS (UK) plans are based on the Cambridge Breathlessness Intervention Service- more focussed on Thinking [ie. Thinking + 3 Fs in different order/graphical differences]:						
Plan 9	NHS Cambridge University Hospitals (thinking)	Internet search	Unavailable	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 10	NHS Highland (thinking)	Internet search	Unavailable	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 11	Cambridge Breathlessness	Internet search	Unavailable	United Kingdom	Unspecified breathlessness	Person with breathlessness

	Intervention Service Toolkit					
Plan 12	St Catherine's Hospice	Internet search	https://www.stch.org.uk/wp-content/uploads/2020/09/action-plan-for-breathlessness.pdf	United Kingdom	Unspecified breathlessness	Person with breathlessness
These plans are based on the NHS iCope Service (UK) and can be considered the same across all resources:						
Plan 13(a)	NHS Camden and Islington - iCope (Anxiety and Panic)	Internet search	https://www.icope.nhs.uk/wp-content/uploads/2021/02/A3-Managing-Breathlessness-Guide_Anxiety-Panic_FINAL.pdf	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 13(b)	NHS Camden and Islington - iCope (Physical Activity and Exertion)	Internet search	https://www.icope.nhs.uk/wp-content/uploads/2021/02/A4-Managing-Breathlessness-Guide_Physical-activity-exercise_FINAL.pdf	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 13(c)	NHS Camden and Islington - iCope (Relaxation and Breathing)	Internet search	https://www.icope.nhs.uk/wp-content/uploads/2021/02/C1-Guide_-relaxation-breathing-techniques_FINAL.pdf	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 13(d)	NHS Camden and Islington - iCope (Managing Breathlessness)	Internet search	https://www.icope.nhs.uk/wp-content/uploads/2021/02/A1-Managing-Breathlessness-Guide_What-causes-breathlessness_-FINAL.pdf	United Kingdom	Unspecified breathlessness	Person with breathlessness
Other Plans:						
Plan 14	Health Resource Directory (South Western Sydney PHN)	Internet search	https://healthresourcedirectory.org.au/en/health-resource-directory/shortness-of-breath-action-plan/	Australia	Unspecified breathlessness	Person with breathlessness
Plan 15	HammondCare	Internet search	https://www.hammond.com.au/health/palliative-care	Australia	Palliative care	Person with breathlessness
Plan 16	Territory Palliative Care Plan (accompanies 'Sick Lungs' Guide)	Internet search	Unavailable	Australia	Palliative care	Person with breathlessness
Plan 17	Managing Your Breathlessness At Home - Central Coast Local Health District (NSW)	Internet search	Unavailable	Australia	Respiratory care	Person with breathlessness
Plan 18	Thoracare Subiaco	Internet search	https://thoracarephysiotherapy.com.au/wp-content/uploads/2019/11/Thoracare-Managing-breathlessness.pdf	Australia	Unspecified breathlessness	Person with breathlessness

Plan 19	Asthma & Respiratory Foundation, New Zealand	Internet search	https://www.asthmafoundation.org.nz/assets/document/s/2021-ARFNZ-breathlessness-quick-reference-2_RLR_2021.pdf	New Zealand	Unspecified breathlessness	Person with breathlessness
Plan 20	Cancer Society, New Zealand	Internet search	https://www.cancer.org.nz/cancer/cancer-treatment/side-effects-of-cancer-and-treatment/breathlessness/	New Zealand	Cancer care	Person with breathlessness
Plan 21	Leeds Centre for Respiratory Medicine (UK)	Internet search	Unavailable	United Kingdom	Respiratory care	Person with breathlessness & Support Person
Plan 22	University of Hull - Bringing Breathlessness into View (UK)	Internet search	https://www.hyms.ac.uk/assets/docs/research/bringing-breathlessness-into-view.pdf	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 23	Cancer Council (Aus)	Internet search	https://www.cancervic.org.au/downloads/resources/bo-oklets/Living-with-Advanced-Cancer.pdf	United Kingdom	Palliative care; Cancer care	Person with breathlessness
Plan 24	Part of LFA COPD Action Plan	Internet search	https://lungfoundation.com.au/resources/copd-action-plan/	Australia	COPD	Person with breathlessness
Plan 25	Asthma WA (webpage)	Internet search		Australia	Respiratory care	Person with breathlessness
Plan 26	NHS Breathlessness	Internet search	https://mft.nhs.uk/app/uploads/2021/05/Breathlessness.pdf	United Kingdom	Respiratory care	Person with breathlessness
Plan 27	Part of Chiesi Air COPD Action Plan	Internet search	https://www.chiesi.co.uk/app/uploads/sites/3/2022/09/01-Breathing-Well-COPD-Action-Plan-2-pages-UK-WEL-2100010-V8_INT.pdf	United Kingdom	COPD	Person with breathlessness
Plan 28	INSPIRE	Internet search	https://inspirebreathingbetter.com/breathlessness-plans	Australia	Unspecified breathlessness	Person with breathlessness
Plan 29	Auckland Hospital Palliative Care Service (NZ)	Internet search	https://healthify.nz/health-a-z/p/palliative-care-breathlessness	New Zealand	Palliative care	Person with breathlessness
Plan 30	Dover Park Hospice (Singapore)	Internet search	Unavailable	Singapore	Unspecified breathlessness	Person with breathlessness
Plan 31	Part of United Healthcare COPD Action Plan (US)	Internet search	Unavailable	United States	Respiratory care	Person with breathlessness
Plan 32	Supporting Breathlessness - Support Person Focussed (UK)	Internet search	https://supporting-breathlessness.org.uk/wp-content/uploads/2020/05/SSwB-website-download-Stress-Panic-and-Breathlessness.pdf	United Kingdom	Unspecified breathlessness	Support Person
Plan 33	Caring at Home Plan	Internet search	https://www.caringathomeproject.com.au/resources/community-resources/tip-sheet-help-with-shortness-of-breath-tipsheet	Australia	Palliative care	Support Person

Plan 34	Heart Failure Action Plan for Breathlessness	Internet search	https://www.researchgate.net/figure/Heart-failure-action-plan-for-breathlessness-000-is-the-emergency-response-number-in_fig2_338163718	Australia	Cardiac care	Person with breathlessness
Plan 35	INSPIRED Program	Literature search; Internet search	https://cahs-acss.ca/wp-content/uploads/2015/07/INSPIRED-Approaches-to-Better-Care-for-Patients-with-Advanced-COPD.pdf	Canada	COPD	Person with breathlessness
Plan 36	Breathlessness RELief AT Home (BREATHE) study (UK)	Literature search; Internet search	https://pmc.ncbi.nlm.nih.gov/articles/PMC9677245/	United Kingdom	Unspecified breathlessness	Person with breathlessness
Plan 37	American Thoracic Society (US)	Literature search; Internet search	https://www.thoracic.org/patients/patient-resources/resources/sudden-breathlessness.pdf	United States	Unspecified breathlessness	Person with breathlessness & Support Person
Plan 38	The Royal Melbourne Hospital	Literature search; Internet search	https://onlinelibrary-wiley-com.ezproxy.lib.uts.edu.au/doi/full/10.1111/resp.13324	Australia	Respiratory care	Person with breathlessness
Plan 39	Northern Territory Health	HP survey	Unavailable	Australia	Unspecified breathlessness	Person with breathlessness
Plan 40	NSW Agency for Clinical Innovation	HP survey	Unavailable	Australia	Unspecified breathlessness	Person with breathlessness
Plan 41	WA Country Health Service	HP survey	Unavailable	Australia	Unspecified breathlessness	Person with breathlessness
Plan 42	Western District Health Service, Hamilton Victoria	HP survey	Unavailable	Australia	Respiratory care	Person with breathlessness
Plan 43	Self-Developed Plan (Unknown)	HP survey	Unavailable	Australia	Unspecified breathlessness	Person with breathlessness
Plan 44	Self-Developed (Royal Perth Hospital)	HP survey	Unavailable	Australia	Respiratory care	Person with breathlessness
Plan 45	Self-Developed (St Vincent's Public Hospital, Melbourne)	HP survey	Unavailable	Australia	Unspecified breathlessness	Person with breathlessness
Plan 46	Self-Developed (South Eastern Sydney LHD)	HP survey	Unavailable	Australia	Unspecified breathlessness	Person with breathlessness
Plan 47	Nelson Tasman Hospice	HP survey	Unavailable	New Zealand	Palliative care	Person with breathlessness
Plan 48	Self-Developed (Te Whatu Ora Lakes, NZ)	HP survey	Unavailable	New Zealand	Palliative care	Person with breathlessness

Plans 49-69	Self-developed (reported as survey response)	Plan-user survey	Unavailable	Australia	Plans were outlined in free-text boxes (ie. no attachment provided to new resource) - see Table 5 for content analysis of only strategies recommended
-------------	--	------------------	-------------	-----------	--

Table 4. Summary of Content Analysis of Plans – Key Characteristics

Plan Number	Plan	Reason Given to Start Plan	Prompt for Medical Management (Type)	Prompt for Oxygen	Time Noted Before Prompt for Medical Management	Prompt to Seek Further Medical Assistance (Type)	Emergency Number Included	Able to Be Personalised
These NHS (UK) Plans are similar:								
Plan 1	NHS - Non Pharmacological Breathlessness Management, page 21 (UK)	no	no	no	no	no	no	no
Plan 2	NHS Coventry and Warwickshire University Hospitals	no	no	no	no	no	no	no
Plan 3	NHS Royal Papworth Hospital	no	no	no	no	no	no	no
Plan 4	NHS West Suffolk	no	Yes (inhaler)	no	yes	no (noted to call family or friend)	no	no
Plan 5	NHS St Christopher's Hospice	no	no	no	no	no	no	no
These NHS (UK) plans are based on the Cambridge Breathlessness Intervention Service- more focussed on Breathing [ie. 3 F's in different order/graphical differences]:								
Plan 6	NHS Oxford (breathing)	no	no	no	no	no	no	no
Plan 7	NHS Cambridge University Hospitals (breathing)	yes	no	no	no	no	no	no
Plan 8	NHS Highland (breathing)	yes	no	no	no	no	no	no
These NHS (UK) plans are based on the Cambridge Breathlessness Intervention Service- more focussed on Thinking [ie. Thinking + 3 Fs in different order/graphical differences]:								
Plan 9	NHS Cambridge University Hospitals (thinking)	yes	no	no	no	no	no	no
Plan 10	NHS Highland (thinking)	yes	no	no	no	no	no	no
Plan 11	Cambridge Breathlessness Intervention Service Toolkit	no	no	no	no	no	no	no
Plan 12	St Catherine's Hospice	no	no	no	no	no	no	no

These plans are based on the NHS iCope Service (UK) and can be considered the same across all resources:								
Plan 13(a)	NHS Camden and Islington - iCope (Anxiety and Panic)	no	no	no	no	no	no	no
Plan 13(b)	NHS Camden and Islington - iCope (Physical Activity and Exertion)	no	no	no	no	no	no	no
Plan 13(c)	NHS Camden and Islington - iCope (Relaxation and Breathing)	no	no	no	no	no	no	no
Plan 13(d)	NHS Camden and Islington - iCope (Managing Breathlessness)	no	no	no	no	no	no	no
Other Plans:								
Plan 14	Health Resource Directory (South Western Sydney PHN)	no	Yes (Opioids; Benzodiazepine)	yes	no	Yes (GP; After hours service; Ambulance)	yes	Yes (dosage of medications; name; date of birth; date of last review)
Plan 15	HammondCare	no	Yes (unspecified)	no	Yes (10 minutes)	Yes (community palliative care team)	no	Yes (dosage of medications; name)
Plan 16	Territory Palliative Care Plan (accompanies 'Sick Lungs' Guide)	no	Yes (Morphine syrup; Alprazolam; Reliever medication)	yes	Yes (10 minutes)	Yes (GP; ambulance)	yes	Yes (dosage of medications; name)
Plan 17	Managing Your Breathlessness At Home - Central Coast Local Health District (NSW)	no	no	no	no	no	no	no
Plan 18	Thoracare Subiaco	no	no	no	no	no	no	no
Plan 19	Asthma & Respiratory Foundation, New Zealand	no	no	no	no	no	no	no
Plan 20	Cancer Society, New Zealand	no	no	no	no	no	no	no

Plan 21	Leeds Centre for Respiratory Medicine (UK)	no	Yes (Inhaler; Nebuliser; Salbutamol; Rescue medication)	yes	no	no	no	Yes (phone number of healthcare professional)
Plan 22	University of Hull - Bringing Breathlessness into View (UK)	no	no	no	no	no	no	no
Plan 23	Cancer Council (Aus)	no	no	no	no	no	no	no
Plan 24	Part of LFA COPD Action Plan	yes	yes (Inhaler)	no	Yes (2-3 minutes)	no	no	no
Plan 25	Asthma WA (webpage)	yes	no	no	no	no	no	no
Plan 26	NHS Breathlessness	yes	no	no	no	no	no	no
Plan 27	Part of Chiesi Air COPD Action Plan	yes	no	no	no	no	no	no
Plan 28	INSPIRE	yes	Yes (unspecified)	yes	No (but mentions 30 minutes to use again)	Yes (can be personalised)	Yes (000)	Yes (dosage of medications; phone number of healthcare professional)
Plan 29	Auckland Hospital Palliative Care Service (NZ)	no	Yes (unspecified)	no	no	no	no	no
Plan 30	Dover Park Hospice (Singapore)	no	Yes (Inhaler; opioids)	yes	30 minutes	Yes (home care nurse; ambulance)	Yes (995)	no
Plan 31	Part of United Healthcare COPD Action Plan (US)	yes	no	no	no	no	no	no
Plan 32	Supporting Breathlessness - Support Person Focussed (UK)	no	Yes (Inhaler)	no	no	no	no	no
Plan 33	Caring at Home Plan	no	yes	no	no	yes	no	Yes (phone number of healthcare professional)
Plan 34	Heart Failure Action Plan for Breathlessness	yes	Yes (Inhaler)	no	no	Yes (Doctor; Heart failure nurse; ambulance)	Yes (000)	no

Plan 35	INSPIRED Program	yes	Yes (Anxiolytics; opioids)	yes	no	Yes (ambulance)	Yes	Yes (dosage of medications; name; date of last review)
Plan 36	Breathlessness RELief AT Home (BREATHE) study (UK)	no	no	no	no	no	no	no
Plan 37	American Thoracic Society (US)	yes	yes (Inhaler; Nebuliser; Morphine; Anxiolytics)	yes	no	no	no	Yes (dosage of medications)
Plan 38	The Royal Melbourne Hospital	yes	Yes (Inhaler)	yes	no	Yes (respiratory nurse; GP; ambulance)	Yes (000)	Yes (dosage of medications)
Plan 39	Northern Territory Health	yes	no	no	no	no	no	no
Plan 40	NSW Agency for Clinical Innovation	no	no	no	no	no	no	Yes (dosage of medications; name; date of birth; phone number of healthcare professional)
Plan 41	WA Country Health Service	yes	Yes (Anxiolytics; opioids; Inhaler)	no	no	Yes (Support person; GP; After hours service; ambulance)	Yes (000)	Yes (dosage of medications; name; date of last review; phone number of healthcare professional)
Plan 42	Western District Health Service, Hamilton Victoria	yes	Yes (unspecified)	yes	no	yes (respiratory nurse practitioner)	no	Yes (dosage of medications; name; date of birth; date of last review)
Plan 43	Self-Developed Plan (Unknown)	yes	no	no	no	no	no	no
Plan 44	Self-Developed (Royal Perth Hospital)	yes	yes (Benzodiazepine)	yes	Yes (10 minutes)	Yes (community palliative care team; ambulance)	Yes (000)	no
Plan 45	Self-Developed (St Vincent's Public Hospital, Melbourne)	no	Yes (Inhaler)	yes	Yes (15 minutes)	yes (ambulance)	Yes (000)	no

Plan 46	Self-Developed (South Eastern Sydney LHD)	yes	no	no	no	no	no	no
Plan 47	Nelson Tasman Hospice	no	yes (unspecified)	no	Yes (15 minutes)	yes	no	Yes (dosage of medications; name; date of last review)
Plan 48	Self-Developed (Te Whatu Ora Lakes, NZ)	no	Yes (Midazolam; morphine)	no	no	No (hospice)	no	no
Plans 49-69	Self-developed (reported as survey response)	Plans were outlined in free-text boxes (ie. no attachment provided to new resource) - see Table 5 for content analysis of only strategies recommended						

Table 5. Summary of Content Analysis of Plans – Non-Medicinal Strategies Recommended

Plan Number	Plan	Number of Non-Medicinal Strategies Recommended	Type of Strategies Recommended	Step Order in Which Strategies are Recommended*						
				Stop	Airflow	Breathing Techniques	Positioning Techniques	Relaxation Techniques	Loosen Clothing	Other
These NHS (UK) Plans are similar:										
Plan 1	NHS - Non Pharmacological Breathlessness Management, page 21 (UK)	6	Stopping or slowing down; Physical positioning; Airflow to face; Relaxation/distraction techniques; Breathing techniques; Support from others	1	4	3	2	5	n/a	6) Support from others - Massage between shoulder blades (by support person)
Plan 2	NHS Coventry and Warwickshire University Hospitals	4	Airflow to face; Physical positioning; Relaxation/distraction techniques; Breathing techniques	n/a	1	3	2	n/a	n/a	4) Block out any distractions
Plan 3	NHS Royal Papworth Hospital	4	Stopping or slowing down; Physical positioning; Breathing techniques; Airflow to face	1	4	3	2	n/a	n/a	n/a
Plan 4	NHS West Suffolk	5	Physical positioning; Breathing techniques; Support from others; Relaxation/distraction techniques; Airflow to face	n/a	3	2	1	4	n/a	5) Support from others - phone call to get someone to help you through it
Plan 5	NHS St Christopher's Hospice	4	Stopping or slowing down; Breathing techniques; Airflow to face; Physical positioning	1	n/a	3	2	4	n/a	n/a

These NHS (UK) plans are based on the Cambridge Breathlessness Intervention Service- more focussed on Breathing [ie. 3 F's in different order/graphical differences]:										
Plan 6	NHS Oxford (breathing)	3	Breathing techniques; Airflow to face; Physical positioning	n/a	2	1	3	n/a	n/a	n/a
Plan 7	NHS Cambridge University Hospitals (breathing)	3	Airflow to face; Physical positioning; Breathing techniques	n/a	1	3	2	n/a	n/a	n/a
Plan 8	NHS Highland (breathing)	3	Airflow to face; Physical positioning; Breathing techniques	n/a	1	3	2	n/a	n/a	n/a
These NHS (UK) plans are based on the Cambridge Breathlessness Intervention Service- more focussed on Thinking [ie. Thinking + 3 Fs in different order/graphical differences]:										
Plan 9	NHS Cambridge University Hospitals (thinking)	4	Reassurance; Physical positioning; Airflow to face; Breathing techniques	n/a	3	4	2	n/a	n/a	1) Reassurance - Positive, reassuring self-talk
Plan 10	NHS Highland (thinking)	4	Reassurance; Physical positioning; Airflow to face; Breathing techniques	n/a	3	4	2	n/a	n/a	1) Reassurance - Positive, reassuring self-talk
Plan 11	Cambridge Breathlessness Intervention Service Toolkit	4	Reassurance; Physical positioning; Airflow to face; Breathing techniques	n/a	3	4	2	n/a	n/a	1) Reassurance - Positive, reassuring self-talk
Plan 12	St Catherine's Hospice	4	Reassurance; Physical positioning; Airflow to face; Breathing techniques	n/a	3	4	2	n/a	n/a	1) Reassurance - Positive, reassuring self-talk
These plans are based on the NHS iCope Service (UK) and can be considered the same across all resources:										
Plan 13(a)	NHS Camden and Islington - iCope (Anxiety and Panic)	4	Stopping or slowing down; Physical positioning; Breathing techniques; Relaxation/distraction techniques	1	n/a	3	2	4	n/a	n/a
Plan 13(b)	NHS Camden and Islington - iCope (Physical Activity and Exertion)	4	Stopping or slowing down; Physical positioning; Breathing techniques;	1	n/a	3	2	4	n/a	n/a

			Relaxation/distraction techniques							
Plan 13(c)	NHS Camden and Islington - iCope (Relaxation and Breathing)	4	Stopping or slowing down; Physical positioning; Breathing techniques; Relaxation/distraction techniques	1	n/a	3	2	4	n/a	n/a
Plan 13(d)	NHS Camden and Islington - iCope (Managing Breathlessness)	4	Stopping or slowing down; Physical positioning; Breathing techniques; Relaxation/distraction techniques	1	n/a	3	2	4	n/a	n/a
Other Plans:										
Plan 14	Health Resource Directory (South Western Sydney PHN)	5	Loosening clothing; Physical positioning; Airflow to face; Relaxation/distraction techniques; Breathing techniques	n/a	3	5	2	4	1	n/a
Plan 15	HammondCare	4	Stopping or slowing down; Physical positioning; Breathing techniques; Airflow to face	1	4	3	2	n/a	n/a	n/a
Plan 16	Territory Palliative Care Plan (accompanies 'Sick Lungs' Guide)	3	Airflow to face; Physical positioning; Breathing techniques	n/a	2	3	1	n/a	n/a	n/a
Plan 17	Managing Your Breathlessness At Home - Central Coast Local Health District (NSW)	4	Stopping or slowing down; Airflow to face; Physical positioning; Breathing techniques	1	4	3	2	n/a	n/a	n/a
Plan 18	Thoracare Subiaco	2	Physical positioning; Relaxation/distraction techniques	n/a	n/a	2	1	n/a	n/a	n/a

Plan 19	Asthma & Respiratory Foundation, New Zealand	4	Stopping or slowing down; Airflow to face; Physical positioning; Breathing techniques	1	3	4	2	n/a	n/a	n/a
Plan 20	Cancer Society, New Zealand	5	Stopping or slowing down; Reassurance; Relaxation/distraction techniques; Breathing techniques; Physical positioning	1		2	4	5	n/a	3) Reassurance - Positive, reassuring self-talk
Plan 21	Leeds Centre for Respiratory Medicine (UK)	4	Physical positioning; Airflow to face; Breathing techniques; Support from others	n/a	2	3	1	n/a	n/a	4) Support from others - Tell someone
Plan 22	University of Hull - Bringing Breathlessness into View (UK)	4	Reassurance; Physical positioning; Airflow to face; Breathing techniques	n/a	3	4	2	n/a	n/a	1) Reassurance - Positive, reassuring self-talk
Plan 23	Cancer Council (Aus)	3	Airflow to face; Physical positioning; Relaxation/distraction techniques	n/a	1	n/a	2	3	n/a	n/a
Plan 24	Part of LFA COPD Action Plan	4	Stopping or slowing down; Physical positioning; Airflow to face; Breathing techniques	1	3	4	2	n/a	n/a	n/a
Plan 25	Asthma WA (webpage)	3	Stopping or slowing down; Physical positioning; Breathing techniques	n/a	2	3	1	n/a	n/a	n/a
Plan 26	NHS Breathlessness	4	Remaining calm; Physical positioning; Relaxation/distraction technique; Breathing techniques	3	n/a	4	1	2	n/a	n/a
Plan 27	Part of Chiesi Air COPD Action Plan	3	Stopping or slowing down; Physical	1	n/a	3	2	n/a	n/a	n/a

			positioning; Breathing techniques							
Plan 28	INSPIRE	5	Physical positioning; Airflow to face; Breathing techniques; Remaining calm;; Relaxation/distraction techniques	n/a	2	3	1	5	n/a	4) Remain calm
Plan 29	Auckland Hospital Palliative Care Service (NZ)	6	Remaining calm; Stopping or slowing down; Airflow to face; Physical positioning; Relaxation/distraction techniques; Breathing techniques	3	5	6	4	2	n/a	1) Remain calm
Plan 30	Dover Park Hospice (Singapore)	3	Airflow to face; Physical positioning; Breathing techniques	n/a	2	3	1	n/a	n/a	n/a
Plan 31	Part of United Healthcare COPD Action Plan (US)	3	Physical positioning; Breathing techniques; Relaxation/distraction techniques	n/a	n/a	2	1	3	n/a	n/a
Plan 32	Supporting Breathlessness - Support Person Focussed (UK)	5	Airflow to face; Physical positioning; Relaxation/distraction techniques; Support from others (acupressure); Breathing techniques	n/a	1	3	2	5	n/a	4) Support from others - Acupressure
Plan 33	Caring at Home Plan	5	Physical positioning; Airflow to face; Breathing techniques; Relaxation/distraction techniques; Reassurance	n/a	2	3	1	4		5) Reassurance
Plan 34	Heart Failure Action Plan for Breathlessness	2	Stopping or slowing down; Breathing techniques	1	n/a	2	n/a	n/a	n/a	n/a

Plan 35	INSPIRED Program	3	Airflow to face; Physical positioning; Breathing techniques	n/a	1	2	3	n/a	n/a	n/a
Plan 36	Breathlessness RELief AT HomE (BREATHE) study (UK)	5	Reassurance; Physical positioning; Breathing techniques; Airflow to face; Relaxation/distraction techniques	n/a	4	3	2	5	n/a	1) Reassurance - Positive, reassuring self- talk
Plan 37	American Thoracic Society (US)	5	Remaining calm; Airflow to face; Reassurance; Relaxation/distraction techniques; Breathing techniques	n/a	2	5	n/a	3	n/a	1) Remain calm 4) Reassurance
Plan 38	The Royal Melbourne Hospital	4	Loosening clothing; Stopping or slowing down; Remaining calm; Airflow to face	n/a	2	3	1	4	n/a	n/a
Plan 39	Northern Territory Health	4	Stopping or slowing down; Physical positioning; Breathing techniques; Airflow to face	1	3	4	2	n/a	n/a	n/a
Plan 40	NSW Agency for Clinical Innovation	3	Airflow to face; Physical positioning; Breathing techniques	n/a	2	3	1	n/a	n/a	n/a
Plan 41	WA Country Health Service	5	Loosening clothing; Airflow to face; Physical positioning; Relaxation/distraction techniques; Breathing technique	n/a	1	4	3	5	2	n/a
Plan 42	Western District Health Service, Hamilton Victoria	4	Airflow to face; Physical positioning; Breathing techniques; Relaxation/distraction techniques	n/a	2	1	3	4	n/a	n/a

Plan 43	Self-Developed Plan (Unknown)	5	Stopping or slowing down; Airflow to face; Physical positioning; Relaxation/distraction techniques; Breathing techniques	1	5	3	2	4	n/a	n/a
Plan 44	Self-Developed (Royal Perth Hospital)	2	Stopping or slowing down; Airflow to face	1	2	n/a	n/a	n/a	n/a	n/a
Plan 45	Self-Developed (St Vincent's Public Hospital, Melbourne)	5	Stopping or slowing down; Airflow to face; Physical positioning; Relaxation/distraction techniques; Breathing techniques	1	4	3	2	5	n/a	n/a
Plan 46	Self-Developed (South Eastern Sydney LHD)	4	Physical positioning; Airflow to face; Relaxation/distraction technique; Breathing techniques	n/a	4	2	1	3	n/a	n/a
Plan 47	Nelson Tasman Hospice	4	Airflow to face; Physical positioning; Support from others; Breathing techniques	n/a	n/a	2	1	4	n/a	3) Support from others - Have someone rub your back if someone present and if it is wanted
Plan 48	Self-Developed (Te Whatu Ora Lakes, NZ)	2	Relaxation/distraction techniques; Airflow to face	n/a	2	n/a	n/a	1	n/a	n/a
Plan 49	Self-developed (reported as plan-user survey response)	3	Physical positioning; Stopping or slowing down; Breathing techniques							
Plan 50	Self-developed (reported as plan-user survey response)	2	Breathing techniques; Remaining calm							

Plan 51	Self-developed (reported as plan-user survey response)	3	Physical positioning; Remaining calm; Breathing techniques
Plan 52	Self-developed (reported as plan-user survey response)	2	Breathing techniques; Remaining calm
Plan 53	Self-developed (reported as plan-user survey response)	2	Airflow to face; Breathing techniques
Plan 54	Self-developed (reported as plan-user survey response)	4	Stopping or slowing down; Physical positioning; Breathing techniques; Remaining calm
Plan 55	Self-developed (reported as plan-user survey response)	3	Airflow to face; Physical positioning; Breathing techniques
Plan 56	Self-developed (reported as plan-user survey response)	2	Breathing techniques; Physical positioning
Plan 57	Self-developed (reported as plan-user survey response)	2	Breathing techniques; Physical positioning
Plan 58	Self-developed (reported as plan-user survey response)	2	Physical positioning; Breathing techniques
Plan 59	Self-developed (reported as plan-user survey response)	2	Breathing techniques; Remaining calm

Plan 60	Self-developed (reported as plan-user survey response)	3	Airflow to face; Physical positioning; Relaxation/distraction techniques
Plan 61	Self-developed (reported as plan-user survey response)	2	Relaxation/distraction techniques; Airflow to face
Plan 62	Self-developed (reported as plan-user survey response)	2	Stopping or slowing down; Physical positioning
Plan 63	Self-developed (reported as plan-user survey response)	2	Remaining calm; Breathing techniques
Plan 64	Self-developed (reported as plan-user survey response)	2	Remaining calm; Breathing techniques
Plan 65	Self-developed (reported as plan-user survey response)	2	Breathing techniques; Relaxation/distraction techniques
Plan 66	Self-developed (reported as plan-user survey response)	2	Breathing techniques; Remaining calm
Plan 67	Self-developed (reported as plan-user survey response)	2	Breathing techniques; Remaining calm
Plan 68	Self-developed (reported as plan-user survey response)	3	Physical positioning; Breathing techniques; Airflow to face

Plan 69	Self-developed (reported as plan- user survey response)	3	Remaining calm; Physical positioning; Breathing techniques	
---------	--	---	--	--

* Step order in which strategies are indicated could not be inferred by plan-user survey responses, where respondents described their self-developed plan in free-text boxes.

Table 6. Summary Analysis of Plans – Readability and PEMAT

Plan Number	Plan	READABILITY					PEMAT ^b	
		Readability Grade ^a	Number of pages of Resource	Word Count of Plan	Images/ Graphics	Supplementary information	Understandability Score	Actionability Score
These NHS (UK) Plans are similar:								
Plan 1	NHS - Non Pharmacological Breathlessness Management, page 21 (UK)	3.9	32	57	no	Yes (plan embedded within powerpoint presentation)	13%	17%
Plan 2	NHS Coventry and Warwickshire University Hospitals	8.8	6	188	no	Yes (plan embedded within info guide)	41%	33%
Plan 3	NHS Royal Papworth Hospital	13	9	13	no	Yes (plan embedded within info guide)	25%	17%
Plan 4	NHS West Suffolk	9	9	164	no	Yes (plan embedded within info guide)	41%	17%
Plan 5	NHS St Christopher's Hospice	6.4	3	23	no	Yes (plan embedded within info guide)	63%	50%
These NHS (UK) plans are based on the Cambridge Breathlessness Intervention Service- more focussed on Breathing [ie. 3 F's in different order/graphical differences]:								
Plan 6	NHS Oxford (breathing)	8.8	12	16	no	Yes (plan embedded within info guide)	65%	100%
Plan 7	NHS Cambridge University Hospitals (breathing)	11.5	9	131	no	Yes (plan embedded within info guide)	82%	100%
Plan 8	NHS Highland (breathing)	11.5	9	131	no	Yes (plan embedded within info guide)	88%	100%
These NHS (UK) plans are based on the Cambridge Breathlessness Intervention Service- more focussed on Thinking [ie. Thinking + 3 Fs in different order/graphical differences]:								
Plan 9	NHS Cambridge University Hospitals (thinking)	7.8	9	114	no	Yes (plan embedded within info guide)	69%	80%
Plan 10	NHS Highland (thinking)	7.8	6	114	no	Yes (plan embedded within info guide)	62%	80%
Plan 11	Cambridge Breathlessness	5.5	32	57	no	Yes (plan embedded within info guide)	87%	100%

	Intervention Service Toolkit							
Plan 12	St Catherine's Hospice	5.5	32	57	no	no	67%	100%
These plans are based on the NHS iCope Service (UK) and can be considered the same across all resources:								
Plan 13(a)	NHS Camden and Islington - iCope (Anxiety and Panic)	7.9	19	115	no	Yes (plan embedded within info guide)	75%	80%
Plan 13(b)	NHS Camden and Islington - iCope (Physical Activity and Exertion)	7.9	19	115	no	Yes (plan embedded within info guide)	75%	80%
Plan 13(c)	NHS Camden and Islington - iCope (Relaxation and Breathing)	7.9	19	115	no	Yes (plan embedded within info guide)	75%	80%
Plan 13(d)	NHS Camden and Islington - iCope (Managing Breathlessness)	7.9	19	115	no	Yes (plan embedded within info guide)	75%	80%
Other Plans:								
Plan 14	Health Resource Directory (South Western Sydney PHN)	6.7	2	378	yes	Yes (info provided alongside plan)	47%	67%
Plan 15	HammondCare	8.2	2	306	yes	Yes (info provided alongside plan)	61%	83%
Plan 16	Territory Palliative Care Plan (accompanies 'Sick Lungs' Guide)	8.8	2	278	yes	Yes (info provided alongside plan)	44%	67%
Plan 17	Managing Your Breathlessness At Home - Central Coast Local Health District (NSW)	8.2	1	51	no	Yes (plan embedded within info guide)	67%	33%
Plan 18	Thoracare Subiaco	8.5	2	139	no	Yes (info provided alongside plan)	39%	40%

Plan 19	Asthma & Respiratory Foundation, New Zealand	5.2	1	16	no	Yes (info provided alongside plan)	65%	50%
Plan 20	Cancer Society, New Zealand	7.8	3	272	yes	Yes (info provided alongside plan)	29%	50%
Plan 21	Leeds Centre for Respiratory Medicine (UK)	4.8	2	268	yes	Yes (plan embedded within info guide)	44%	50%
Plan 22	University of Hull - Bringing Breathlessness into View (UK)	7.2	6	92	no	Yes (plan embedded within info guide)	38%	33%
Plan 23	Cancer Council (Aus)	9	78	189	yes	Yes (plan embedded within info guide)	81%	100%
Plan 24	Part of LFA COPD Action Plan	9.2	2	84	yes	yes (plan embedded within COPD action plan)	82%	80%
Plan 25	Asthma WA (webpage)	9.9	1	132	no	Yes (plan embedded within info guide)	58%	50%
Plan 26	NHS Breathlessness	9.4	9	101	yes	yes (plan embedded within info guide)	56%	100%
Plan 27	Part of Chiesi Air COPD Action Plan	7.9	2	281	yes	Yes (plan embedded within COPD action plan)	81%	83%
Plan 28	INSPIRE	9.3	2	220	no	no	71%	80%
Plan 29	Auckland Hospital Palliative Care Service (NZ)	8.8	1	109	no	no	73%	100%
Plan 30	Dover Park Hospice (Singapore)	8.8	1	105	yes	no	88%	80%
Plan 31	Part of United Healthcare COPD Action Plan (US)	5.5	3	147	no	No (plan embedded within COPD action plan)	60%	50%
Plan 32	Supporting Breathlessness - Support Person Focussed (UK)	10.7	2	174	no	Yes (plan embedded within info guide)	77%	60%

Plan 33	Caring at Home Plan	5.7	1	94	yes	Yes (info provided alongside plan)	76%	40%
Plan 34	Heart Failure Action Plan for Breathlessness	7.3	1	144	yes	no	69%	60%
Plan 35	INSPIRED Program	10.7	1	315	no	no	64%	60%
Plan 36	Breathlessness RELief AT HomE (BREATHE) study (UK)	8.5	1	78	no	Yes (separate info guide)	50%	100%
Plan 37	American Thoracic Society (US)	12.1	3	752	no	yes (info provided alongside plan)	62%	40%
Plan 38	The Royal Melbourne Hospital	11	1	254	no	no	77%	100%
Plan 39	Northern Territory Health	7.2	1	77	yes	Yes (info provided alongside plan)	88%	100%
Plan 40	NSW Agency for Clinical Innovation	9.8	2	178	yes	no	87%	100%
Plan 41	WA Country Health Service	8.1	2	506	yes	Yes (info provided alongside plan)	78%	67%
Plan 42	Western District Health Service, Hamilton Victoria	8.6	2	185	yes	no	50%	60%
Plan 43	Self-Developed Plan (Unknown)	7.2	1	70	yes	no	76%	60%
Plan 44	Self-Developed (Royal Perth Hospital)	11.9	1	82	no	no	64%	60%
Plan 45	Self-Developed (St Vincent's Public Hospital, Melbourne)	11.6	1	50	yes	no	69%	60%
Plan 46	Self-Developed (South Eastern Sydney LHD)	6.6	1	92	yes	no	72%	80%
Plan 47	Nelson Tasman Hospice	9.7	1	176	no	no	73%	60%
Plan 48	Self-Developed (Te Whatu Ora Lakes, NZ)	7.1	1	105	no	no	50%	40%

Plans 49-69	Self-developed (reported as survey response)	Unable to report on readability and assess using PEMAT: Plans were outlined in free-text boxes (ie. no attachment provided to new resource) - see Table 5 for content analysis of only strategies recommended
-------------	--	--

^a Readability was assessed using the Flesch-Kincaid formula administered through the Sydney Health Literacy Lab SHeLL editor [\[https://www.sydneyhealthliteracylab.org.au/\]](https://www.sydneyhealthliteracylab.org.au/)

^b The Patient Education Materials Assessment Tool – Printable Materials (PEMAT-P) was used to assess the understandability and actionability of plans [Shoemaker SJ, Wolf MS, Brach C. Development of the Patient Education Materials Assessment Tool (PEMAT): a new measure of understandability and actionability for print and audiovisual patient information. Patient Educ Couns. Sep 2014;96(3):395–403. doi:10.1016/j.pec.2014.05.027] – see **Tables 7-13** for detailed PEMAT analysis

Table 7. Detailed Summary of PEMAT Analysis^a – Plans 1 to 8

PEMAT Item		Scoring Guide		These NHS (UK) Plans are similar:					These NHS (UK) plans are based on the Cambridge Breathlessness Intervention Service- more focussed on Breathing [3 Fs in different order/graphical differences]			
				Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Plan 8	
		NHS - Non Pharmacological Breathlessness Management, page 21 (UK)	NHS Coventry and Warwickshire University Hospitals	NHS Royal Papworth Hospital	NHS West Suffolk	NHS St Christopher's Hospice	NHS Oxford (breathing)	NHS Cambridge University Hospitals (breathing)	NHS Highland (breathing)			
UNDERSTANDABILITY												
Topic: Content												
1	The material makes its purpose completely evident.	Disagree=0, Agree=1	0	0	0	1	0	0	1	1		
2	The material does not include information or content that distracts from its purpose.	Disagree=0, Agree=1	1	1	0	1	1	1	1	1		
Topic: Word Choice & Style												
3	The material uses common, everyday language.	Disagree=0, Agree=1	0	1	1	1	1	1	1	1		
4	Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.	Disagree=0, Agree=1	1	1	1	1	1	1	0	1		
5	The material uses the active voice.	Disagree=0, Agree=1	0	0	0	0	1	1	1	1		
Topic: Use of Numbers												
6	Numbers appearing in the material are clear and easy to understand.	Disagree=0, Agree=1,	N/A	1	N/A	0	N/A	N/A	N/A	N/A		

	No numbers=N/A									
7	The material does not expect the user to perform calculations.	Disagree=0, Agree=1	N/A	N/A	N/A	N/A	N/A	1	1	1
Topic: Organisation										
8	The material breaks or "chunks" information into short sections.	Disagree=0, Agree=1, Very short material=N/A	0	1	1	1	1	1	1	1
9	The material's sections have informative headers.	Disagree=0, Agree=1, Very short material=N/A	0	0	0	1	1	1	1	1
10	The material presents information in a logical sequence.	Disagree=0, Agree=1	0	0	0	0	0	0	1	1
11	The material provides a summary.	Disagree=0, Agree=1, Very short material=N/A	0	0	0	0	0	1	1	1
Topic: Layout & Design										
12	The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree=0, Agree=1, Video=N/A	0	1	0	0	1	0	1	1
Topic: Use of Visual Aids										
15	The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).	Disagree=0, Agree=1	0	0	0	0	0	1	1	1
16	The material's visual aids reinforce rather than distract from the content.	Disagree=0, Agree=1, No visual aids=N/A	0	1	0	0	1	0	1	1
17	The material's visual aids have clear titles or captions.	Disagree=0, Agree=1, No visual aids=N/A	NA	0	0	0	1	1	1	1

18	The material uses illustrations and photographs that are clear and uncluttered.	Disagree=0, Agree=1, No visual aids=N/A	NA	0	1	1	1	1	1	1
19	The material uses simple tables with short and clear row and column headings.	Disagree=0, Agree=1, No tables=N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Points:			2	7	4	7	10	11	14	15
Total Points Possible: (number of items on which material was rated, excluding items scored not applicable N/A)			14	15	14	15	14	15	15	15
Understandability Score (%): (Total Points / Total Possible Points x 100)			14%	47%	29%	47%	71%	73%	93%	100%
ACTIONABILITY										
20	The material clearly identifies at least one action the user can take.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
21	The material addresses the user directly when describing actions.	Disagree=0, Agree=1	0	0	0	0	1	1	1	1
22	The material breaks down any action into manageable, explicit steps.	Disagree=0, Agree=1	0	1	0	0	0	1	1	1
23	The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.	Disagree=0, Agree=1	0	0	0	0	0	1	1	1
24	The material provides simple instructions or examples of how to perform calculations.	Disagree=0, Agree=1, No calculations=NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	The material explains how to use the charts, graphs, tables, or diagrams to take actions.	Disagree=0, Agree=1, No charts, graphs, tables, or diagrams=N/A	0	0	0	0	1	N/A	1	1
26	The material uses visual aids whenever they could make it easier to act on the instructions.	Disagree=0, Agree=1	0	0	0	0	0	1	1	1
Total Points:			1	2	1	1	3	5	6	6

Total Points Possible: (number of items on which material was rated, excluding items scored not applicable N/A)	6	6	6	6	6	5	6	6
Actionability Score (%): (Total Points / Total Possible Points x 100)	17%	33%	17%	17%	50%	100%	100%	100%

^a The Patient Education Materials Assessment Tool – Printable Materials (PEMAT-P) was used to assess the understandability and actionability of plans [Shoemaker SJ, Wolf MS, Brach C. Development of the Patient Education Materials Assessment Tool (PEMAT): a new measure of understandability and actionability for print and audiovisual patient information. Patient Educ Couns. Sep 2014;96(3):395–403. doi:10.1016/j.pec.2014.05.027]

Table 8. Detailed Summary of PEMAT Analysis – Plans 9 to 13

PEMAT Item		Scoring Guide		These NHS (UK) plans are based on the Crambridge Breathlessness Intervention Service- more focussed on Thinking [Thinking strategies + 3 Fs in different order/graphical differences]				These plans are based on the NHS iCope Service (UK) and can be considered the same across all resources			
				Plan 9	Plan 10	Plan 11	Plan 12	Plan 13(a)	Plan 13(b)	Plan 13(c)	Plan 13(d)
		NHS Cambridge University Hospitals (thinking)	NHS Highland (thinking)	Cambridge Breathlessness Intervention Service Toolkit	St Catherine's Hospice	NHS Camden and Islington - iCope (Anxiety and Panic)	NHS Camden and Islington - iCope (Physical Activity and Exertion)	NHS Camden and Islington - iCope (Relaxation and Breathing)	NHS Camden and Islington - iCope (Managing Breathlessness)		
UNDERSTANDABILITY											
Topic: Content											
1	The material makes its purpose completely evident.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1	
2	The material does not include information or content that distracts from its purpose.	Disagree=0, Agree=1	0	0	1	1	1	1	1	1	
Topic: Word Choice & Style											
3	The material uses common, everyday language.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1	
4	Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1	
5	The material uses the active voice.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1	
Topic: Use of Numbers											
6	Numbers appearing in the material are clear and easy to understand.	Disagree=0, Agree=1, No numbers=N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
7	The material does not expect the user to perform calculations.	Disagree=0, Agree=1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Topic: Organisation										
8	The material breaks or "chunks" information into short sections.	Disagree=0, Agree=1, Very short material=N/A	1	0	1	1	1	1	1	1
9	The material's sections have informative headers.	Disagree=0, Agree=1, Very short material=N/A	1	1	1	1	1	1	1	1
10	The material presents information in a logical sequence.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
11	The material provides a summary.	Disagree=0, Agree=1, Very short material=N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Topic: Layout & Design										
12	The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree=0, Agree=1, Video=N/A	1	1	1	0	1	1	1	1
Topic: Use of Visual Aids										
15	The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).	Disagree=0, Agree=1	0	0	1	0	0	0	0	0
16	The material's visual aids reinforce rather than distract from the content.	Disagree=0, Agree=1, No visual aids=N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A
17	The material's visual aids have clear titles or captions.	Disagree=0, Agree=1, No visual aids=N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A
18	The material uses illustrations and photographs that are clear and uncluttered.	Disagree=0, Agree=1, No visual aids=N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A

19	The material uses simple tables with short and clear row and column headings.	Disagree=0, Agree=1, No tables=N/A	1	1	N/A	N/A	N/A	N/A	N/A	N/A
Total Points:			9	8	13	8	9	9	9	9
Total Points Possible: (number of items on which material was rated, excluding items scored not applicable N/A)			11	11	13	10	10	10	10	10
Understandability Score (%): (Total Points / Total Possible Points x 100)			82%	73%	100%	80%	90%	90%	90%	90%
ACTIONABILITY										
20	The material clearly identifies at least one action the user can take.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
21	The material addresses the user directly when describing actions.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
22	The material breaks down any action into manageable, explicit steps.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
23	The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.	Disagree=0, Agree=1	1	1	1	1	0	0	0	0
24	The material provides simple instructions or examples of how to perform calculations.	Disagree=0, Agree=1, No calculations=NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	The material explains how to use the charts, graphs, tables, or diagrams to take actions.	Disagree=0, Agree=1, No charts, graphs, tables, or diagrams=N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A
26	The material uses visual aids whenever they could make it easier to act on the instructions.	Disagree=0, Agree=1	0	0	1	0	1	1	1	1
Total Points:			4	4	6	4	4	4	4	4
Total Points Possible: (number of items on which material was rated, excluding items scored not applicable N/A)			5	5	6	5	5	5	5	5
Actionability Score (%):			80%	80%	100%	80%	80%	80%	80%	80%

(Total Points / Total Possible Points x 100)								
--	--	--	--	--	--	--	--	--

^a The Patient Education Materials Assessment Tool – Printable Materials (PEMAT-P) was used to assess the understandability and actionability of plans [Shoemaker SJ, Wolf MS, Brach C. Development of the Patient Education Materials Assessment Tool (PEMAT): a new measure of understandability and actionability for print and audiovisual patient information. Patient Educ Couns. Sep 2014;96(3):395–403. doi:10.1016/j.pec.2014.05.027]

Table 9. Detailed Summary of PEMAT Analysis^a – Plans 14 to 21

		Plan 14	Plan 15	Plan 16	Plan 17	Plan 18	Plan 19	Plan 20	Plan 21
		Health Resource Directory (South Western Sydney PHN)	Hammond Care	Territory Palliative Care Plan (accompanies 'Sick Lungs' Guide)	Managing Your Breathlessness At Home - Central Coast Local Health District (NSW)	Thoracare Subiaco	Asthma & Respiratory Foundation, New Zealand	Cancer Society, New Zealand	Leeds Centre for Respiratory Medicine (UK)
PEMAT Item	Scoring Guide								
UNDERSTANDABILITY									
Topic: Content									
1	The material makes its purpose completely evident.	Disagree=0, Agree=1	1	0	0	1	0	0	0
2	The material does not include information or content that distracts from its purpose.	Disagree=0, Agree=1	1	1	1	1	0	1	0
Topic: Word Choice & Style									
3	The material uses common, everyday language.	Disagree=0, Agree=1	1	1	1	1	1	1	1
4	Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.	Disagree=0, Agree=1	0	1	1	1	1	1	0
5	The material uses the active voice.	Disagree=0, Agree=1	1	1	1	1	0	1	0
Topic: Use of Numbers									
6	Numbers appearing in the material are clear and easy to understand.	Disagree=0, Agree=1, No numbers=N/A	0	1	1	1	1	N/A	1
7	The material does not expect the user to perform calculations.	Disagree=0, Agree=1	1	1	1	1	1	1	N/A
Topic: Organisation									
8	The material breaks or "chunks" information into short sections.	Disagree=0, Agree=1, Very short material=N/A	1	1	1	1	1	1	0

9	The material's sections have informative headers.	Disagree=0, Agree=1, Very short material=N/A	1	1	1	1	1	1	0	1
10	The material presents information in a logical sequence.	Disagree=0, Agree=1	0	0	0	0	0	0	0	0
11	The material provides a summary.	Disagree=0, Agree=1, Very short material=N/A	0	0	0	1	0	0	0	0
Topic: Layout & Design										
12	The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree=0, Agree=1, Video=N/A	0	0	0	1	0	1	0	1
Topic: Use of Visual Aids										
15	The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).	Disagree=0, Agree=1	1	0	0	1	0	0	0	0
16	The material's visual aids reinforce rather than distract from the content.	Disagree=0, Agree=1, No visual aids=N/A	1	1	0	0	0	1	1	0
17	The material's visual aids have clear titles or captions.	Disagree=0, Agree=1, No visual aids=N/A	0	1	0	0	0	1	0	0
18	The material uses illustrations and photographs that are clear and uncluttered.	Disagree=0, Agree=1, No visual aids=N/A	0	1	0	0	1	1	1	1
19	The material uses simple tables with short and clear row and column headings.	Disagree=0, Agree=1, No tables=N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Points:			9	11	8	12	7	11	5	7
Total Points Possible:			17	16	16	16	16	15	15	14

(number of items on which material was rated, excluding items scored not applicable N/A)										
Understandability Score (%): (Total Points / Total Possible Points x 100)		53%	69%	50%	75%	44%	73%	33%	50%	
ACTIONABILITY										
20	The material clearly identifies at least one action the user can take.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
21	The material addresses the user directly when describing actions.	Disagree=0, Agree=1	1	1	1	0	0	1	1	1
22	The material breaks down any action into manageable, explicit steps.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
23	The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.	Disagree=0, Agree=1	1	1	0	0	0	0	0	0
24	The material provides simple instructions or examples of how to perform calculations.	Disagree=0, Agree=1, No calculations=NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	The material explains how to use the charts, graphs, tables, or diagrams to take actions.	Disagree=0, Agree=1, No charts, graphs, tables, or diagrams=N/A	0	1	1	0	N/A	0	0	0
26	The material uses visual aids whenever they could make it easier to act on the instructions.	Disagree=0, Agree=1	0	0	0	0	0	0	0	0
Total Points:			4	5	4	2	2	3	3	3
Total Points Possible: (number of items on which material was rated, excluding items scored not applicable N/A)			6	6	6	6	5	6	6	6
Actionability Score (%): (Total Points / Total Possible Points x 100)			67%	83%	67%	33%	40%	50%	50%	50%

^a The Patient Education Materials Assessment Tool – Printable Materials (PEMAT-P) was used to assess the understandability and actionability of plans [Shoemaker SJ, Wolf MS, Brach C. Development of the Patient Education Materials Assessment Tool (PEMAT): a new measure of understandability and actionability for print and audiovisual patient information. Patient Educ Couns. Sep 2014;96(3):395–403. doi:10.1016/j.pec.2014.05.027]

Table 10. Detailed Summary of PEMAT Analysis^a – Plans 22 to 29

		Plan 22	Plan 23	Plan 24	Plan 25	Plan 26	Plan 27	Plan 28	Plan 29	
		University of Hull - Bringing Breathlessness into View (UK)	Cancer Council (Aus)	Part of LFA COPD Action Plan	Asthma WA (webpage)	NHS Breathlessness	Part of Chiesi Air COPD Action Plan	INSPIRE	Auckland Hospital Palliative Care Service (NZ)	
PEMAT Item	Scoring Guide									
UNDERSTANDABILITY										
Topic: Content										
1	The material makes its purpose completely evident.	Disagree=0, Agree=1	0	1	1	1	1	1	1	
2	The material does not include information or content that distracts from its purpose.	Disagree=0, Agree=1	0	1	1	1	1	1	1	
Topic: Word Choice & Style										
3	The material uses common, everyday language.	Disagree=0, Agree=1	1	1	1	1	1	1	1	
4	Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.	Disagree=0, Agree=1	N/A	1	1	1	1	1	1	
5	The material uses the active voice.	Disagree=0, Agree=1	0	1	1	0	1	1	1	
Topic: Use of Numbers										
6	Numbers appearing in the material are clear and easy to understand.	Disagree=0, Agree=1, No numbers=N/A	N/A	N/A	0	N/A	N/A	N/A	1	N/A
7	The material does not expect the user to perform calculations.	Disagree=0, Agree=1	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A
Topic: Organisation										
8	The material breaks or "chunks" information into short sections.	Disagree=0, Agree=1, Very short material=N/A	1	1	1	1	1	1	1	
9	The material's sections have informative headers.	Disagree=0, Agree=1,	1	1	1	1	0	1	1	N/A

	Very short material=N/A								
10	The material presents information in a logical sequence.	Disagree=0, Agree=1	0	1	1	1	1	1	1
11	The material provides a summary.	Disagree=0, Agree=1, Very short material=N/A	0	0	1	N/A	0	0	N/A
Topic: Layout & Design									
12	The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree=0, Agree=1, Video=N/A	1	1	1	0	1	1	0
Topic: Use of Visual Aids									
15	The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).	Disagree=0, Agree=1	1	1	1	0	1	1	0
16	The material's visual aids reinforce rather than distract from the content.	Disagree=0, Agree=1, No visual aids=N/A	0	1	1	N/A	1	1	N/A
17	The material's visual aids have clear titles or captions.	Disagree=0, Agree=1, No visual aids=N/A	0	1	1	N/A	0	1	N/A
18	The material uses illustrations and photographs that are clear and uncluttered.	Disagree=0, Agree=1, No visual aids=N/A	0	1	1	N/A	0	1	N/A
19	The material uses simple tables with short and clear row and column headings.	Disagree=0, Agree=1, No tables=N/A	1	N/A	N/A	N/A	N/A	N/A	N/A
Total Points:			6	13	14	7	9	13	10
Total Points Possible: (number of items on which material was rated, excluding items scored not applicable N/A)			14	14	15	10	14	14	12

Understandability Score (%): (Total Points / Total Possible Points x 100)		43%	93%	93%	70%	64%	93%	83%	89%
ACTIONABILITY									
20	The material clearly identifies at least one action the user can take.	Disagree=0, Agree=1	1	1	1	1	1	1	1
21	The material addresses the user directly when describing actions.	Disagree=0, Agree=1	0	1	1	1	1	1	1
22	The material breaks down any action into manageable, explicit steps.	Disagree=0, Agree=1	0	1	1	0	1	1	1
23	The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.	Disagree=0, Agree=1	0	1	1		1	1	1
24	The material provides simple instructions or examples of how to perform calculations.	Disagree=0, Agree=1, No calculations=NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	The material explains how to use the charts, graphs, tables, or diagrams to take actions.	Disagree=0, Agree=1, No charts, graphs, tables, or diagrams=N/A	1	N/A	N/A	N/A	N/A	0	N/A
26	The material uses visual aids whenever they could make it easier to act on the instructions.	Disagree=0, Agree=1	0	1	1	N/A	1	1	0
Total Points:			2	5	4	2	5	5	4
Total Points Possible: (number of items on which material was rated, excluding items scored not applicable N/A)			6	5	5	4	5	6	5
Actionability Score (%): (Total Points / Total Possible Points x 100)			33%	100%	80%	50%	100%	83%	80%

^a The Patient Education Materials Assessment Tool – Printable Materials (PEMAT-P) was used to assess the understandability and actionability of plans [Shoemaker SJ, Wolf MS, Brach C. Development of the Patient Education Materials Assessment Tool (PEMAT): a new measure of understandability and actionability for print and audiovisual patient information. Patient Educ Couns. Sep 2014;96(3):395–403. doi:10.1016/j.pec.2014.05.027]

Table 11. Detailed Summary of PEMAT Analysis^a – Plans 30 to 37

		Plan 30	Plan 31	Plan 32	Plan 33	Plan 34	Plan 35	Plan 36	Plan 37	
		Dover Park Hospice (Singapore)	Part of United Healthcare COPD Action Plan (US)	Supporting Breathlessness - Support Person Focussed (UK)	Caring at Home Plan	Heart Failure Study	INSPIRED Program (UK)	Breathlessness RELIEF AT Home (BREATHE) study (UK)	American Thoracic Society (US)	
PEMAT Item	Scoring Guide									
UNDERSTANDABILITY										
Topic: Content										
1	The material makes its purpose completely evident.	Disagree=0, Agree=1	1	0	1	0	1	1	0	1
2	The material does not include information or content that distracts from its purpose.	Disagree=0, Agree=1	1	0	1	0	1	1	1	1
Topic: Word Choice & Style										
3	The material uses common, everyday language.	Disagree=0, Agree=1	1	1	1	1	1	0	1	1
4	Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.	Disagree=0, Agree=1	1	1	1	1	1	0	N/A	0
5	The material uses the active voice.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
Topic: Use of Numbers										
6	Numbers appearing in the material are clear and easy to understand.	Disagree=0, Agree=1, No numbers=N/A	1	1	N/A	N/A	N/A	1	N/A	N/A
7	The material does not expect the user to perform calculations.	Disagree=0, Agree=1	1	1	1	1	1	1	1	N/A
Topic: Organisation										
8	The material breaks or "chunks" information into short sections.	Disagree=0, Agree=1, Very short material=N/A	1	1	1	1	1	1	1	1

9	The material's sections have informative headers.	Disagree=0, Agree=1, Very short material=N/A	1	1	1	1	1	1	N/A	1
10	The material presents information in a logical sequence.	Disagree=0, Agree=1	1	1	1	1	1	1	0	1
11	The material provides a summary.	Disagree=0, Agree=1, Very short material=N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A
Topic: Layout & Design										
12	The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree=0, Agree=1, Video=N/A	1	0	1	1	1	1	0	0
Topic: Use of Visual Aids										
15	The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).	Disagree=0, Agree=1	1	0	0	1	0	0	0	0
16	The material's visual aids reinforce rather than distract from the content.	Disagree=0, Agree=1, No visual aids=N/A	1	N/A	N/A	1	0	N/A	N/A	N/A
17	The material's visual aids have clear titles or captions.	Disagree=0, Agree=1, No visual aids=N/A	1	N/A	N/A	1	0	N/A	N/A	N/A
18	The material uses illustrations and photographs that are clear and uncluttered.	Disagree=0, Agree=1, No visual aids=N/A	1	N/A	N/A	1	1	N/A	N/A	N/A
19	The material uses simple tables with short and clear row and column headings.	Disagree=0, Agree=1, No tables=N/A	N/A	1	N/A	1	N/A	N/A	N/A	1
Total Points:			15	9	10	13	11	9	6	8
Total Points Possible:			15	13	11	15	14	12	10	11

(number of items on which material was rated, excluding items scored not applicable N/A)										
Understandability Score (%): (Total Points / Total Possible Points x 100)		100%	69%	91%	87%	79%	75%	60%	73%	
ACTIONABILITY										
20	The material clearly identifies at least one action the user can take.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
21	The material addresses the user directly when describing actions.	Disagree=0, Agree=1	1	1	1	1	1	1	1	0
22	The material breaks down any action into manageable, explicit steps.	Disagree=0, Agree=1	1	1	1	0	1	1	1	0
23	The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.	Disagree=0, Agree=1	0	0	0	0	0	0	1	1
24	The material provides simple instructions or examples of how to perform calculations.	Disagree=0, Agree=1, No calculations=NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	The material explains how to use the charts, graphs, tables, or diagrams to take actions.	Disagree=0, Agree=1, No charts, graphs, tables, or diagrams=N/A	N/A	NA	N/A	N/A	N/A	N/A	N/A	N/A
26	The material uses visual aids whenever they could make it easier to act on the instructions.	Disagree=0, Agree=1	1	0	0	0	0	0	N/A	0
Total Points:			4	3	3	2	3	3	4	2
Total Points Possible: (number of items on which material was rated, excluding items scored not applicable N/A)			5	6	5	5	5	5	4	5
Actionability Score (%): (Total Points / Total Possible Points x 100)			80%	50%	60%	40%	60%	60%	100%	40%

^a The Patient Education Materials Assessment Tool – Printable Materials (PEMAT-P) was used to assess the understandability and actionability of plans [Shoemaker SJ, Wolf MS, Brach C. Development of the Patient Education Materials Assessment Tool (PEMAT): a new measure of understandability and actionability for print and audiovisual patient information. Patient Educ Couns. Sep 2014;96(3):395–403. doi:10.1016/j.pec.2014.05.027]

Table 12. Detailed Summary of PEMAT Analysis^a – Plans 38 to 45

		Plan 38	Plan 39	Plan 40	Plan 41	Plan 42	Plan 43	Plan 44	Plan 45	
		The Royal Melbourne Hospital	NT Health	NSW Agency for Clinical Innovation	WA Country Health Service	Western District Health Service, Hamilton Victoria	Self-Developed Plan (Unknown)	Self-Developed (Royal Perth Hospital)	Self-Developed (St Vincent's Public Hospital, Melbourne)	
PEMAT Item	Scoring Guide									
UNDERSTANDABILITY										
Topic: Content										
1	The material makes its purpose completely evident.	Disagree=0, Agree=1	1	1	1	1	0	0	1	1
2	The material does not include information or content that distracts from its purpose.	Disagree=0, Agree=1	1	1	1	1	0	1	1	1
Topic: Word Choice & Style										
3	The material uses common, everyday language.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
4	Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
5	The material uses the active voice.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
Topic: Use of Numbers										
6	Numbers appearing in the material are clear and easy to understand.	Disagree=0, Agree=1, No numbers=N/A	1	1	N/A	1	1	1	1	N/A
7	The material does not expect the user to perform calculations.	Disagree=0, Agree=1	N/A	N/A	N/A	1	1	1	1	1
Topic: Organisation										
8	The material breaks or "chunks" information into short sections.	Disagree=0, Agree=1, Very short material=N/A	1	1	1	1	1	1	1	0

9	The material's sections have informative headers.	Disagree=0, Agree=1, Very short material=N/A	1	1	1	1	1	0	0	1	
10	The material presents information in a logical sequence.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1	
11	The material provides a summary.	Disagree=0, Agree=1, Very short material=N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Topic: Layout & Design											
12	The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree=0, Agree=1, Video=N/A	1	1	1	1	1	1	1	0	0
Topic: Use of Visual Aids											
15	The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).	Disagree=0, Agree=1	0	1	1	1	0	1	0	1	
16	The material's visual aids reinforce rather than distract from the content.	Disagree=0, Agree=1, No visual aids=N/A	N/A	1	1	1	0	1	N/A	1	
17	The material's visual aids have clear titles or captions.	Disagree=0, Agree=1, No visual aids=N/A	N/A	1	1	0	0	1	N/A	0	
18	The material uses illustrations and photographs that are clear and uncluttered.	Disagree=0, Agree=1, No visual aids=N/A	N/A	1	1	1	0	1	N/A	1	
19	The material uses simple tables with short and clear row and column headings.	Disagree=0, Agree=1, No tables=N/A	N/A	N/A	N/A	NA	NA	N/A	N/A	N/A	
Total Points:			10	14	13	14	9	13	9	11	
Total Points Possible:			11	14	13	16	16	15	12	14	

(number of items on which material was rated, excluding items scored not applicable N/A)										
Understandability Score (%): (Total Points / Total Possible Points x 100)		91%	100%	100%	88%	56%	87%	75%	79%	
ACTIONABILITY										
20	The material clearly identifies at least one action the user can take.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
21	The material addresses the user directly when describing actions.	Disagree=0, Agree=1	1	1	1	1	1	1	1	0
22	The material breaks down any action into manageable, explicit steps.	Disagree=0, Agree=1	1	1	1	1	1	1	1	1
23	The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.	Disagree=0, Agree=1	1	1	1	0	0	0	0	0
24	The material provides simple instructions or examples of how to perform calculations.	Disagree=0, Agree=1, No calculations=NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	The material explains how to use the charts, graphs, tables, or diagrams to take actions.	Disagree=0, Agree=1, No charts, graphs, tables, or diagrams=N/A	N/A	N/A	N/A	NA	N/A	N/A	N/A	N/A
26	The material uses visual aids whenever they could make it easier to act on the instructions.	Disagree=0, Agree=1	N/A	1	1	1	0	0	0	1
Total Points:			4	5	5	4	3	3	3	3
Total Points Possible: (number of items on which material was rated, excluding items scored not applicable N/A)			4	5	5	6	5	5	5	5
Actionability Score (%): (Total Points / Total Possible Points x 100)			100%	100%	100%	67%	60%	60%	60%	60%

^a The Patient Education Materials Assessment Tool – Printable Materials (PEMAT-P) was used to assess the understandability and actionability of plans [Shoemaker SJ, Wolf MS, Brach C. Development of the Patient Education Materials Assessment Tool (PEMAT): a new measure of understandability and actionability for print and audiovisual patient information. Patient Educ Couns. Sep 2014;96(3):395–403. doi:10.1016/j.pec.2014.05.027]

Table 13. Detailed Summary of PEMAT Analysis^a – Plans 46 to 48

		Plan 46	Plan 47	Plan 48	
		Self-Developed (South Eastern Sydney LHD)	Nelson Tasman Hospice	Self-Developed (Te Whatu Ora Lakes, NZ)	
PEMAT Item	Scoring Guide				
UNDERSTANDABILITY					
Topic: Content					
1	The material makes its purpose completely evident.	Disagree=0, Agree=1	1	1	1
2	The material does not include information or content that distracts from its purpose.	Disagree=0, Agree=1	1	1	1
Topic: Word Choice & Style					
3	The material uses common, everyday language.	Disagree=0, Agree=1	1	1	0
4	Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.	Disagree=0, Agree=1	1	1	1
5	The material uses the active voice.	Disagree=0, Agree=1	1	1	0
Topic: Use of Numbers					
6	Numbers appearing in the material are clear and easy to understand.	Disagree=0, Agree=1, No numbers=N/A	1	1	1
7	The material does not expect the user to perform calculations.	Disagree=0, Agree=1	1	1	1
Topic: Organisation					
8	The material breaks or "chunks" information into short sections.	Disagree=0, Agree=1, Very short material=N/A	1	1	1
9	The material's sections have informative headers.	Disagree=0, Agree=1,	0	1	0

	Very short material=N/A			
10 The material presents information in a logical sequence.	Disagree=0, Agree=1	1	1	0
11 The material provides a summary.	Disagree=0, Agree=1, Very short material=N/A	NA	NA	N/A
Topic: Layout & Design				
12 The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree=0, Agree=1, Video=N/A	1	1	1
Topic: Use of Visual Aids				
15 The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).	Disagree=0, Agree=1	1	0	0
16 The material's visual aids reinforce rather than distract from the content.	Disagree=0, Agree=1, No visual aids=N/A	1	N/A	N/A
17 The material's visual aids have clear titles or captions.	Disagree=0, Agree=1, No visual aids=N/A	0	N/A	N/A
18 The material uses illustrations and photographs that are clear and uncluttered.	Disagree=0, Agree=1, No visual aids=N/A	1	N/A	N/A
19 The material uses simple tables with short and clear row and column headings.	Disagree=0, Agree=1, No tables=N/A	N/A	N/A	N/A
Total Points:		13	11	7
Total Points Possible: (number of items on which material was rated, excluding items scored not applicable N/A)		16	13	12

Understandability Score (%): (Total Points / Total Possible Points x 100)		81%	85%	58%	
ACTIONABILITY					
20	The material clearly identifies at least one action the user can take.	Disagree=0, Agree=1	1	1	1
21	The material addresses the user directly when describing actions.	Disagree=0, Agree=1	1	1	0
22	The material breaks down any action into manageable, explicit steps.	Disagree=0, Agree=1	1	1	1
23	The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.	Disagree=0, Agree=1	0	0	0
24	The material provides simple instructions or examples of how to perform calculations.	Disagree=0, Agree=1, No calculations=NA	N/A	N/A	N/A
25	The material explains how to use the charts, graphs, tables, or diagrams to take actions.	Disagree=0, Agree=1, No charts, graphs, tables, or diagrams=N/A	N/A	N/A	N/A
26	The material uses visual aids whenever they could make it easier to act on the instructions.	Disagree=0, Agree=1	1	0	0
Total Points:			4	3	2
Total Points Possible: (number of items on which material was rated, excluding items scored not applicable N/A)			5	5	5
Actionability Score (%): (Total Points / Total Possible Points x 100)			80%	60%	40%

^a The Patient Education Materials Assessment Tool – Printable Materials (PEMAT-P) was used to assess the understandability and actionability of plans [Shoemaker SJ, Wolf MS, Brach C. Development of the Patient Education Materials Assessment Tool (PEMAT): a new measure of understandability and actionability for print and audiovisual patient information. Patient Educ Couns. Sep 2014;96(3):395–403. doi:10.1016/j.pec.2014.05.027]