

(Online supplement) TIDieR checklist to describe the BREATHE intervention

| Item | Description | |
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| 1 | Brief name: Provide the name or a phrase that describes the intervention | Breathlessness RElief AT Home (BREATHE) |
| 2 | Why: Describe any rationale, theory, or goal of the elements essential to the intervention | <p>Each component was selected from components of evidence based chronic breathlessness management interventions if thought to be applicable in the emergency situation. The proposed intervention was then agreed on after feedback gained through interviews with a range of clinicians. The aim of the intervention is to provide paramedics with a structured set of breathlessness management strategies that they can incorporate into their practice.</p> <p>The combination of elements B, R, E, A and T are intended to settle the patient's breathlessness and then a decision on whether conveyance is now necessary or not can be made. The H and E elements are then added when the paramedic goes back over the BREATHE intervention on the leaflet and action plan to help the patient and carer know how they could act if there are future instances of acute-on-chronic breathlessness. Further information on managing every day breathlessness and where to find support is incorporated in the booklet that the paramedic leaves with them to read at their leisure.</p> |
| 3 | What (materials): Describe any physical or informational materials used in the intervention, including those provided to participants or used in intervention delivery or in training of intervention providers. Provide information on where the materials can be accessed (for example, online appendix, URL) | <p>The leaflet and action plan are on a laminated card for easy future reference when severely breathless. The information booklet is a 22-page booklet covering information on managing every day breathlessness and where to find support.</p> <p>(See online supplements)</p> |
| 4 | What (procedures): Describe each of the procedures, activities, and/or processes used in the intervention, including any enabling or support activities | |
| 4i* | Be reassured that the breathlessness will ease and you will feel better | <p>Paramedic provides a reassuring presence.</p> <p>Paramedic models all of the steps to the carer and encourages them to take part.</p> |
| 4ii* | Resting position: find the most comfortable position for you, flop and drop shoulders | Patient is helped to find a comfortable position to ease their breathlessness and to relax their shoulders. |

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| 4iii* | Exercises: use the breathing exercises to help control your breathing | Patient is encouraged to do a breathing exercise (e.g. rectangle breathing, pursed lip breathing). |
| 4iv* | Airflow: use the fan as you've been shown | Paramedic introduces the fan, saying why and how it is used. Additionally, the patient was encouraged to put a damp cloth on their face and to open a window. |
| 4v* | Time: take your time, nice and slow | Paramedic continues to help the patient take their time and relax. |
| 4vi* | Help with fears and worries: use your action plan | Worries are addressed with reference to the action plan. Patient and carer are encouraged to try this process and follow the action plan in future times of increased breathlessness. |
| 4vii* | Education: read the booklet for practical ways to help you manage your breathlessness | Paramedic recommends that the patient and carer read the information booklet at a later point in time. |
| 5 | Who provided: For each category of intervention provider (for example, psychologist, nursing assistant), describe their expertise, background and any specific training given | Paramedics are trained in the BREATHE intervention. The training is given in a group session by paramedics and a clinician experienced in breathlessness management. |
| 6 | How: Describe the modes of delivery (such as face to face or by some other mechanism, such as internet or telephone) of the intervention and whether it was provided individually or in a group | In person at call-out individually to the patient (and carer if present). |
| 7 | Where: Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features | In the patient's home. |
| 8 | When and how much: Describe the number of times the intervention was delivered and over what period of time including the number of sessions, their schedule, and their duration, intensity or dose | The intervention is provided once at call-out, the duration needed was determined by the paramedic in each case. |
| 9 | Tailoring: If the intervention was planned to be personalised, titrated or adapted, then describe what, why, when, and how | The intervention can be tailored to use specific breathing exercises or positions that the patient may already have a preference for. |
| 10 | Modifications: If the intervention was modified during the course of the study, describe the changes (what, why, when, and how) | The intervention was modified during the pandemic so that no direct contact was made with the patient and the fan was provided for their use later, rather than in the presence of the paramedic. This change was made due to |

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| | | the need for infection control. |
| 11 | How well (planned): If intervention adherence or fidelity was assessed, describe how and by whom, and if any strategies were used to maintain or improve fidelity, describe them | Adherence and fidelity were assessed by paramedic self-report of which elements of the intervention were used with each patient. |
| 12 | How well (actual): If intervention adherence or fidelity was assessed, describe the extent to which the intervention was delivered as planned | <p>The intervention was largely delivered as planned, but had to be adapted for infection control reasons. After each call-out in which the intervention was used paramedics recorded which parts of the intervention they had used. All parts were consistently used with the modifications described below.</p> <p>The intervention was planned to include the paramedics touching the patients to provide reassurance and aiding with relaxing the shoulders, but no touch was provided. Instead the paramedics relied on their voices to make a reassuring presence. Originally the intervention included the patient using the fan simultaneously with adopting a suitable position and doing breathing exercises, however these components were introduced without the fan at call-out and then the paramedic described how the fan should be used in future once their breathlessness had settled.</p> <p>Paramedics reported going over the leaflet and action plan with the patient and carer to reinforce learning. However, they reported having very little time to introduce the information booklet and so it was just left with the patient without a detailed introduction.</p> <p>The intervention was found to be acceptable in the modified form to paramedics, patients and carers.</p> |