How do expert palliative care doctors recognise which palliative care patients are imminently dying?

Why is recognising dying important?

Being able to recognise when palliative care patients are dying is a key clinical skill that enables patients to die where they wish to, that helps families to spend time with their loved ones, and which informs clinical decision making.

What is the aim of this training?

The aim of this training is to show you which types of information (cues) expert palliative care doctors consider are the most important when trying to decide if a palliative care patient is imminently dying (i.e. within the next 72 hours). Remember that these factors are only relevant to patients who are already under the care of palliative care services, whom a senior clinician has judged to have incurable disease with no reversible factors, and where death is considered likely within a couple of weeks in any case. This advice does not apply to the recognition of imminent death in other clinical circumstances (e.g. patients in the Emergency Department or on an ITU; patients with potentially reversible airways or heart disease; or patients with an acute stroke).

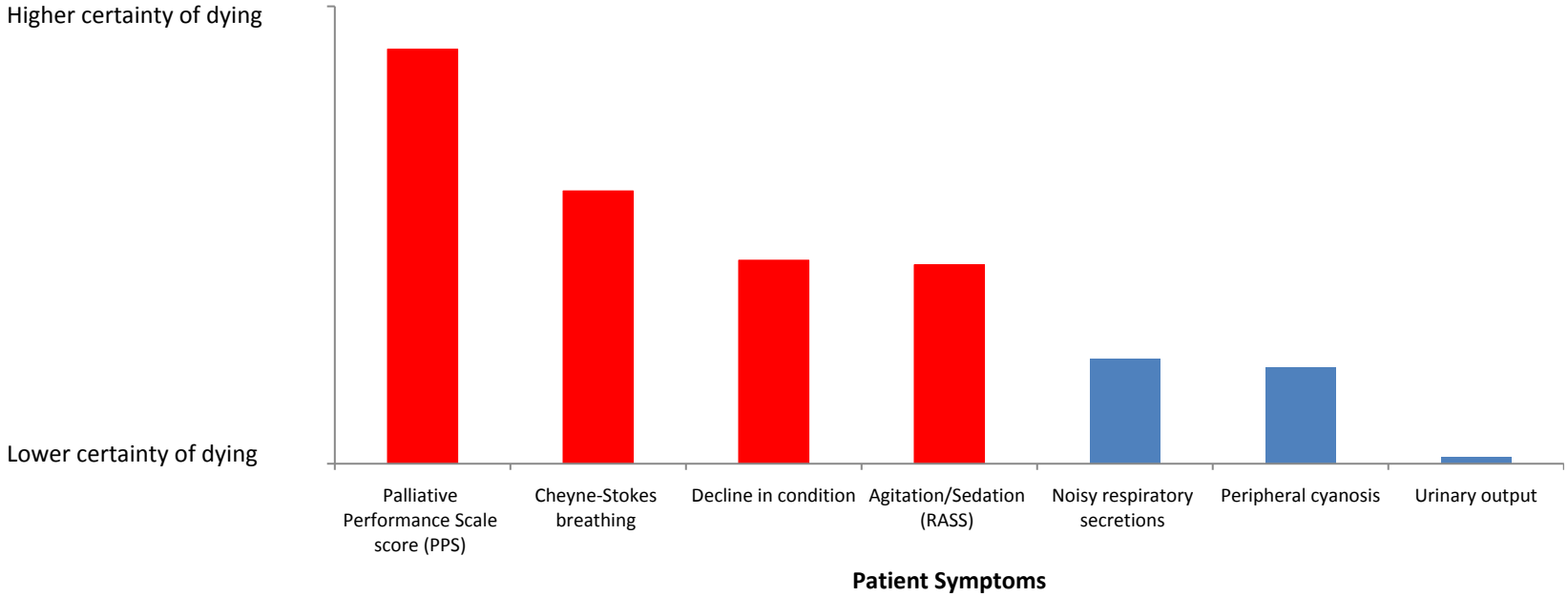
In a previous study, we identified a group of specialist palliative care doctors who were experts at recognising dying patients. The experts were presented with the same scenarios that you have just completed.

In this training, we will present to you the four key pieces of information about the patient that made the experts think that the patient was likely to die imminently.

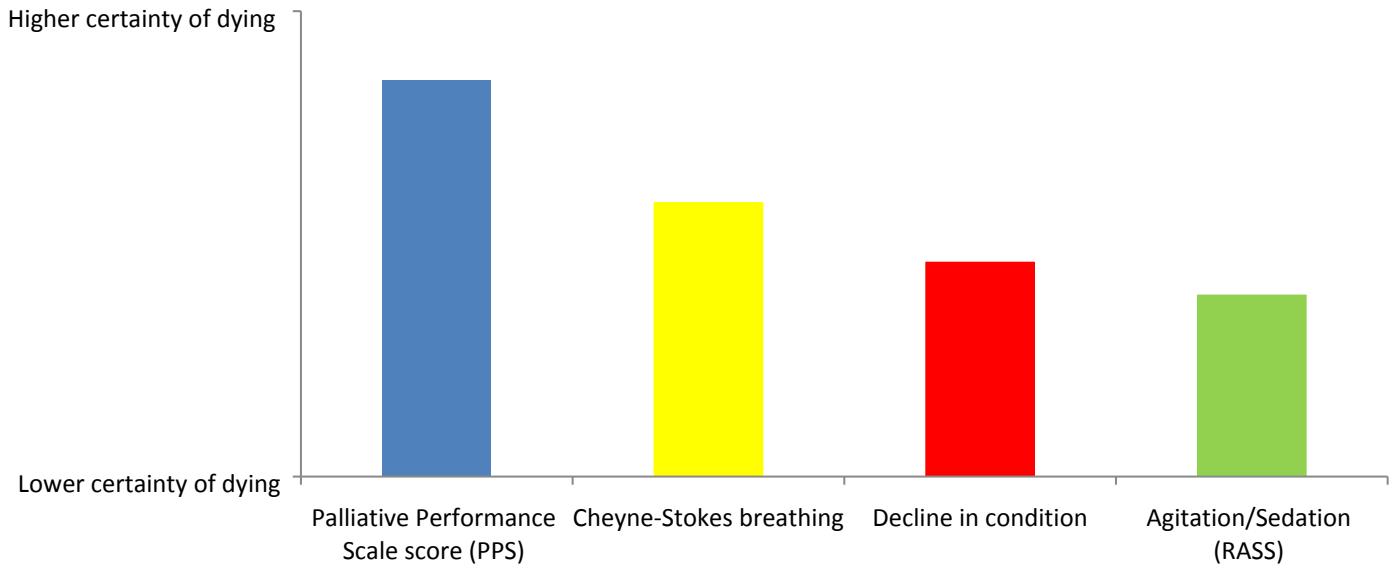
Please note: completing this training does not equip you with all the clinical skills you need as a doctor to be able to make a prognostic judgment. This training package is designed to complement your existing medical training.

Of the seven cues presented to the experts, there were **four** that had the most significant influence on professionals' judgements. These were:

1) The **Palliative Performance Score;**
2) Whether or not **Cheyne-Stokes breathing** was present;
3) The **rate of change** (whether or not the patient's condition had deteriorated rapidly in the past 24 hours);
4) The level of **agitation or sedation**.

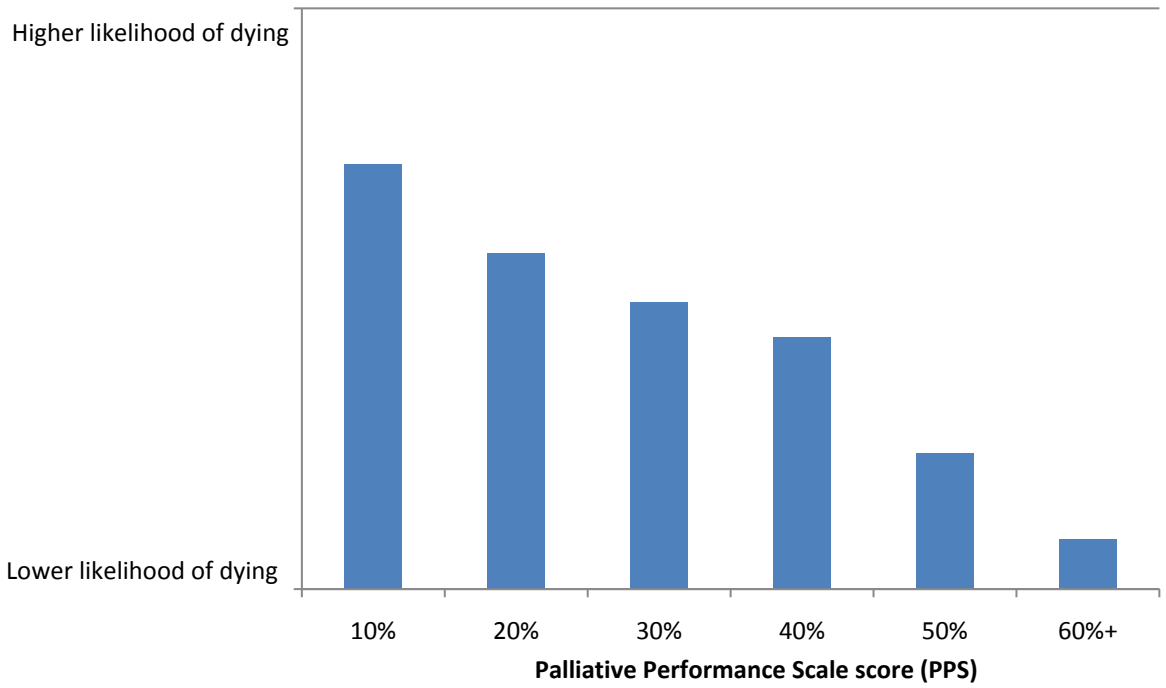


The graph below focuses only on the four cues that the experts used. It shows you the relative importance professionals placed on these four cues when making judgements. If you concentrate on the information in these four cues, you will be able to produce a similar decision to the experienced professionals.



1. Palliative Performance Scale score

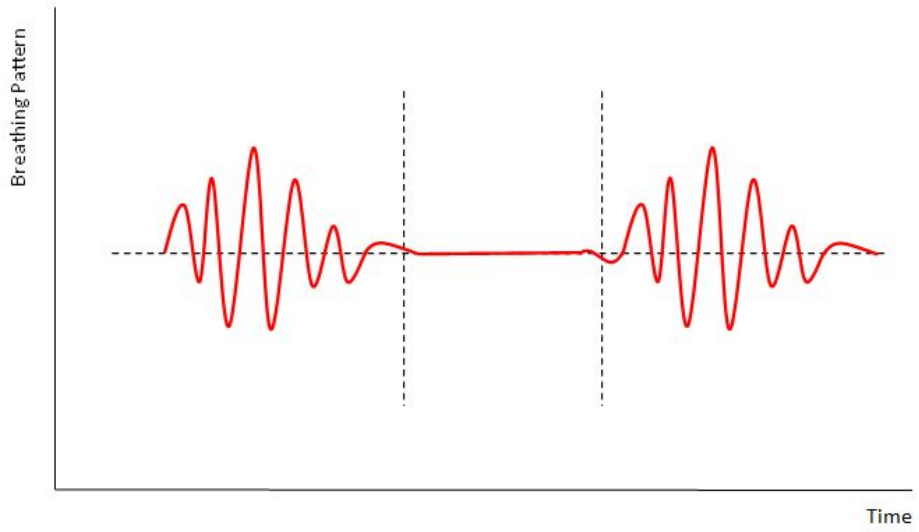
The **Palliative Performance Scale score** is a validated measure used to assess the functional ability of a patient. The final score can range from 0% (dead), 10% which represents a patient who can't get out of bed and has full care needs, up to 100% which represents a fully independent adult. The graph below shows that the expert doctors increased their estimate about the probability of dying with every 10% decrease in the PPS.



2. Cheyne-Stokes breathing

The presence of Cheyne-Stokes breathing has a significant influence on the professionals' certainty of dying.

Cheyne-Stokes breathing is a cyclical pattern of breathing in which movement alters from hyperpnoea to apnoea then to hyperpnoea. Below is a chart of this breathing pattern.



The presence of Cheyne-Stokes breathing led the expert group of doctors to provide a higher estimate about the probability of dying.

3. Rate of change in global condition

The rate of change is a measure of how the patient's condition has deteriorated over the last 24 hours.

There are several ways to obtain this information:

a) Review of the medical notes to get an overall indication of the patient;
b) Discussion with the nursing / wider medical team who have been with the patient over the last 24 hours;
c) Discussion with family members;
d) Direct and repeated assessment;
e) All of the above.

In a patient who had displayed a rapid decline in their global condition in the previous 24 hours, the expert group were more likely to estimate that the patient was dying.

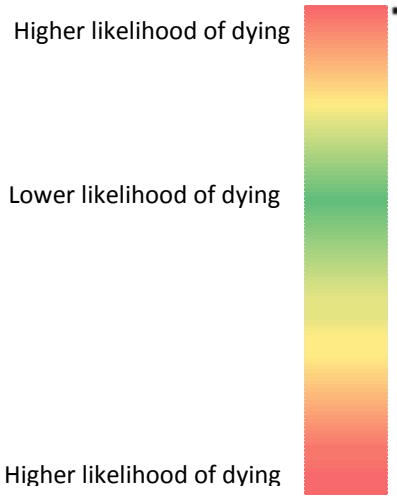
4. Agitation / Sedation

The level of agitation or sedation can be measured using several validated tools. Our experts were provided with information from the Richmond Agitation and Sedation Scale (RASS).

A patient with a score of '0' on this scale is alert and calm. A patient with a negative score is showing signs of sedation. The score gradually reduces to -5 at which point the patient is unarousable and does not respond to either voice or physical stimulation. A patient with a positive score is showing signs of agitation. The scale goes up to +4 at which point the patient is overtly combative or violent, and is an immediate danger to staff.

Patients at either end of the RASS scale (who were either agitated or sedated) were considered by our expert group to be at a higher risk of dying.

Richmond Agitation-Sedation Scale (RASS)



Score	Term	Description	
+4	Combative	Overtly combative, violent, immediate danger to staff	
+3	Very agitated	Pulls or removes tube(s) or catheter(s), aggressive	
+2	Agitated	Frequent nonpurposeful movement, fights ventilator	
+1	Restless	Anxious but movements not aggressively vigorous	
0	Alert and calm		
-1	Drowsy	Not fully alert but has sustained awakening (eye opening/eye contact) to *voice* (≥10 seconds)	Verbal Stimulation
-2	Light sedation	Briefly awakens to *voice* with eye contact (<10 seconds)	Verbal Stimulation
-3	Moderate sedation	Movement or eye opening to *voice* (but no eye contact)	Verbal Stimulation
-4	Deep sedation	No response to voice but movement or eye opening to *physical* stimulation	Physical Stimulation
-5	Unarousable	No response to *voice* or *physical* stimulation	Physical Stimulation

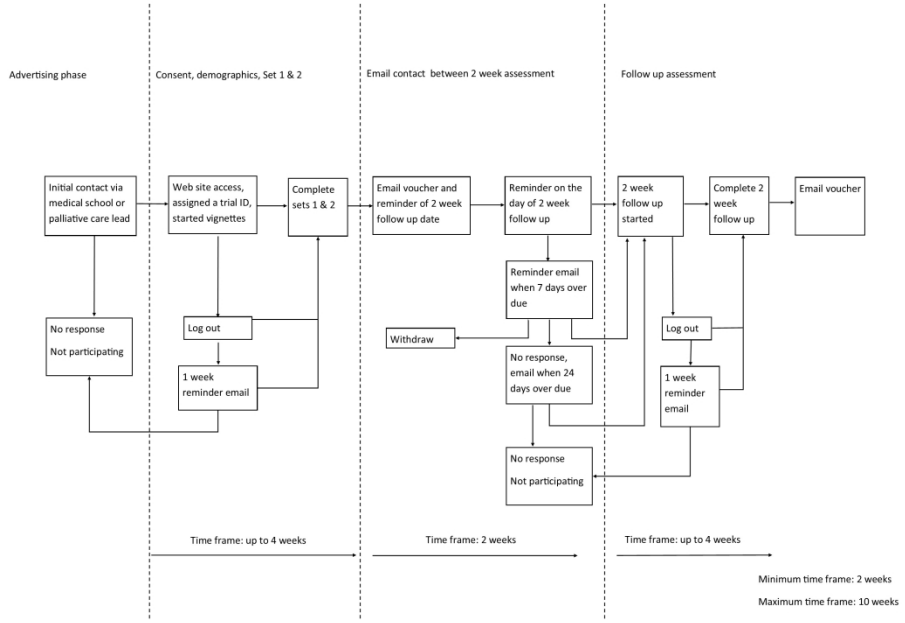
Important implications of this training on your clinical practice

As mentioned at the start of this online training resource, the aim of this training is to show you what information expert palliative care doctors consider to be the most important cues when trying to decide if a palliative care patient is imminently dying (i.e. within the next 72 hours). The information in this training resource applies ONLY to this group of patients.

Remember that these cues are only relevant to patients who are already under the care of palliative care services, whom a senior clinician has judged to have incurable disease with no reversible factors, and where death is considered likely within a couple of weeks in any case.

This advice does not apply to the recognition of imminent death in other clinical circumstances (e.g. patients in the Emergency Department or on an ITU; patients with potentially reversible airways or heart disease; or patients with an acute stroke).

It is important to remember that any **decision that a patient is likely to die imminently** is **only a prediction**. Even expert prognosticators make mistakes and so it is always important to regularly review the patient's condition and review your prognosis in the light of clinical circumstances. Current NICE guidelines on end of life care recommend that a regular review of symptoms and signs should be undertaken and that care plan should be altered as appropriate.



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