Cough is a protective reflex response to airway irritation and is triggered by stimulation of airway cough receptors by either irritants or by conditions that cause airway distortion.

### Management of cough

#### COVID-19 Outbreak

**Cough hygiene**

To minimise the risk of cross-transmission:
- cover the nose and mouth with a disposable tissue when sneezing, coughing, wiping & blowing the nose
- dispose of used tissues promptly into clinical waste bin used for infectious or contaminated waste
- clean hands with soap and water, alcohol hand rub or hand wipes after coughing, sneezing, using tissues, or after contact with respiratory secretions or objects contaminated by these secretions

**Non-pharmacological measures**

- humidify room air
- oral fluids
- honey & lemon in warm water
- suck cough drops / hard sweets
- elevate the head when sleeping
- avoid smoking

**Pharmacological measures**

- simple linctus 5-10mg PO QDS if ineffective
- codeine linctus 30-60mg PO QDS or
- morphine sulphate immediate release solution 2.5mg PO 4 hourly

If all these measures fail, seek specialist advice, to discuss:
- use of sodium cromoglicate 10 mg inhaled 4 times a day (can improve cough in people with lung cancer within 36-48 hours)
- use of oral corticosteroids
- if severe / end of life: morphine sulphate injection 10mg CSCI over 24 hours and 2.5–5mg SC 4 hourly PRN
Delirium is an acute confusional state that can happen when someone is ill. It is a SUDDEN change over a few hours or days, and tends to vary at different times of day. People may be confused at some times and then seem their normal selves at other times. People who become delirious may start behaving in ways that are unusual for them - they may become more agitated than normal or feel more sleepy and withdrawn.

**Non-pharmaceutical measures**
- identify and manage the possible underlying cause or combination of causes
- ensure effective communication and reorientation (for example explaining where the person is, who they are, and what your role is) and provide reassurance for people diagnosed with delirium
- consider involving family, friends and carers to help with this
- ensure that people at risk of delirium are cared for by a team of healthcare professionals who are familiar to the person at risk
- avoid moving people within and between wards or rooms unless absolutely necessary
- ensure adequate lighting

**Pharmacological measures: first line**
- midazolam 2.5mg-5mg SC prn 1-2 hourly
  - or
  - lorazepam 500micrograms PO/SL prn 1-2 hourly

**Pharmacological measures: second line**

**Option 1**
- midazolam 10mg-30mg/24hr via a syringe driver
- and
- haloperidol 2.5mg-5mg SC prn 1-2 hourly (1-5mg in the elderly)

**Option 2**
- midazolam 10mg-30mg/24hr via a syringe driver
- and
- levomepromazine 12.5-25mg SC prn 2-4 hourly (12.5mg in the elderly)

Management of this symptom, which is distressing for both relatives and staff (patients are usually unaware of what they are doing at this time) can be troublesome. Through use of the medications below, titrated appropriately, this can usually be managed effectively.
- Prevention of delirium better than cure, so meticulous adherence to delirium prevention strategies (orientation, prevention of constipation, management of hypoxia, etc) is essential
- Adoption of daily screening, using Single Question in Delirium (SQiD) and / or 4AT rapid test for delirium ([https://www.the4at.com/](https://www.the4at.com/)) to detect early and treat cause
**Management of fever COVID-19 Outbreak**

Fever is when a human's body temperature goes above the normal range of 36–37° Centigrade (98–100° Fahrenheit). It is a common medical sign. Other terms for a fever include pyrexia and controlled hyperthermia. As the body temperature goes up, the person may feel cold until it levels off and stops rising.

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**Is it fever?**

- significant fever is defined as a body temperature of:
  - 37.5°C or greater (oral)
  - 37.2°C or greater (axillary)
  - 37.8°C or greater (tympanic)
  - 38°C or greater (rectal)

- associated signs & symptoms:
  - shivering
  - shaking
  - chills
  - aching muscles and joints
  - other body aches

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**Non-pharmacological measures**

- reduce room temperature
- wear loose clothing
- cooling the face by using a cool flannel or cloth
- oral fluids
- avoid alcohol
- portable fans used in clinical areas have been linked to cross infection in health and social care facilities, although there is no strong evidence yet
- portable fans are not recommended for use during outbreaks of infection or when a patient is known or suspected to have an infectious agent

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**Pharmacological measures**

- paracetamol 1g PO / IV / PR QDS
- **NSAIDS contraindicated in COVID-19** (Day, 2020)
- if a patient is close to the end of life, it may be appropriate to consider use of NSAIDs (e.g. parecoxib 40mg SC OD-BD; maximum 80mg in 24 hours)

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**Normal body temperature: 98.6°F (37°C)**

**Body fever temperature: > 100°F (37.7°C)**

**Rectal fever temperature: > 100.5°F (38°C)**
Patients may experience pain due to existing co-morbidities, but may also develop pain as a result of excessive coughing or immobility. Such symptoms should be addressed using existing approaches to pain management.

**Patient on no analgesics - mild pain**
- **Step 1:**
  - **regular** paracetamol (usual dose 1g four times a day)
  - if not helping pain: stop paracetamol if not helping pain
  - start codeine 30-60mg four times a day

- **Step 2:**
  - persistent or worsening pain: stop paracetamol if not helping pain
  - start codeine 30-60mg four times a day

- **Step 3:**
  - maximum paracetamol and codeine, persistent or worsening pain: stop paracetamol if not helping pain
  - stop codeine
  - always prescribe laxatives alongside strong opioids
  - prescribe an antiemetic regularly or prn

**Commencing strong opioids**
- start either an immediate-release (IR) or a modified-release (MR) preparation
- ALWAYS prescribe an immediate-release morphine preparation prn
- starting dose will depend on existing analgesia – calculate dose required
- monitor the patient closely for effectiveness and side effects
- always prescribe laxatives alongside strong opioids

**Suggested starting doses**
- opioid-naïve/frail/elderly
  - morphine 2.5-5mg PO IR 4 hourly
- previously using regular weak opioid (e.g. codeine 240mg/24h)
  - morphine 5mg PO IR 4 hourly or MR 20-30mg BD
  - frail/elderly: use lower starting dose of 2.5mg PO IR 4 hourly or MR 10-15mg BD
- eGFR <30
  - seek advice

**Titrating oral opioid dose**
- if adjusting the dose of opioid, take prn doses into account
- check that the opioid is effective before increasing the dose
- increments should not exceed 33-50% every 24 hours
- titration of the dose of opioid should stop when either the pain is relieved or unacceptable side effects occur
- if pain control achieved on IR consider conversion to MR opioid (same 24-hour total dose)
- seek specialist advice if analgesia titrated 3 times without achieving pain control / 3 or more prn doses per day / total daily dose of oral morphine over 120mg / day unacceptable side effects

**When the oral route is not available**
- if analgesic requirements are stable - consider transdermal patches (e.g. buprenorphine, fentanyl)
- if analgesic requirements are unstable consider initiating subcutaneous opioids
- seek specialist advice if necessary
- morphine is recommended as the first line strong opioid for subcutaneous use for patients, except for patients who have been taking oral oxycodone or those with severe renal impairment
- if constant pain, prescribe morphine 4 hourly SC injections or as 24-hour continuous infusion via a syringe driver (McKinley T34)
- conversion from oral to SC morphine: oral morphine 5mg = SC morphine 2.5mg
- wide inter-individual variation exists and each patient should be assessed on an individual basis
- prn doses of 1/10 to 1/6 of regular 24-hour opioid dose should be prescribed 2-4 hourly SC prn

**NSAIDS contraindicated in COVID-19** (Day, 2020)
Discussions about goals of care  
(adapted from RCP, 2018)

The UK population is ageing and many more people are living with chronic illness and multiple comorbidities. A third of patients admitted unexpectedly to hospital (rising to 80% in those living in 24-hour care) are in the last year of their lives. (Clark et al, 2014) Despite such facts, few have ever had discussions about ceilings of treatment or resuscitation.

Timely honest conversations about the person’s preferences and priorities, including advance decisions to refuse treatment, is part of advance care planning for anybody who has a progressive life-limiting illness. In the context of people who have severe COVID-19 disease, honest conversations about goals of care and treatment escalation planning should be initiated as early as is practicable so that a personalised care and support plan can be developed and documented. This will need to be revisited and revised as the situation changes. Families and those close to the person should be involved in these discussions as far as possible and in line with the person’s wishes. This is standard good practice in palliative and end of life care.

However, in the context of COVID-19, the person is likely to have become ill and deteriorated quite quickly so the opportunity for discussion and involving them in decision making may be limited or lost. Families and those close to them may be shocked by the suddenness of these developments and may themselves be ill and / or required to self-isolate. There may be multiple members of the family ill at the same time. But as far as possible it remains important to offer these conversations. Being kept honestly informed helps to reduce anxiety, even if the health care professionals do not have all the answers and even if the conversations need to be conducted behind PPE or, in the case of families who are self-isolating, by telephone or by using other technology solutions.

It should be acknowledged that talking to patients and those close to them about prognosis, ceilings of treatment and possible end of life care is often challenging (Brighton & Bristowe, 2016) but, in the current COVID-19 outbreak, such conversations with the population described may become even more difficult, as health professionals may have to triage patients, often in emergency or urgent situations, and prioritise certain interventions and ceilings of treatment. This is not only to ensure that those with significant potential to recover receive appropriate care, but also that those who are very unlikely to survive also receive appropriate, end of life care.

Such decisions may have to be made when health professionals have not had the opportunity to get to know their patient as well as they would usually like, or may involve discussion with those close to the patient over the telephone or via internet-based communication facilities. While this is less than ideal (DoH, 2015; NPEoLCP, 2015), honest conversations are often what patients and those close to them actually want. (Choice, 2015)

Key points to consider when discussing ceilings of treatment
• don’t make things more complicated than they need to be; use a framework such as SPIKES:
  o Setting / situation: read clinical records, ensure privacy, no interruptions
  o Perception: what do they know already?; no assumptions
  o Invitation: how much do they want to know?
  o Knowledge: explain the situation; avoid jargon; take it slow
  o Empathy: even if busy, show that you care
  o Summary / strategy: summarise what you’ve said; explain next steps

• should ceilings of treatment conversations include ethical issues, for example where escalation to Level 3 care is thought not to be appropriate due to frailty, comorbidity or other reasons, health professionals should be prepared for anger / upset / questions
these are usually not aimed directly at you, but you may have to absorb these emotions and react professionally, even if they are upsetting / difficult at the time

- patients or those close to them may request a ‘second opinion’ – this should be facilitated wherever possible

- be honest and clear
  - don’t use jargon; use words patients and those close to them will understand
  - sit down; take time; measured pace and tone; use silences to allow people to process information
  - avoid using phrases such as “very poorly” on their own – is the patient “sick enough that they may die”? If they are – say it

While palliative, end of life and bereavement care professionals cannot take over responsibility for this aspect of care and have the conversations for you, they should be able to support, advise and provide follow up care.
**Background**

The UK population is ageing and many more people are living with chronic illness and multiple comorbidities. A third of patients admitted unexpectedly to hospital (rising to 80% in those living in 24-hour care) are in the last year of their lives. Despite such facts, few have ever had discussions about ceilings of treatment or resuscitation.

Such conversations, which constitute advance care planning, are useful during normal times, but even more so during the COVID-19 outbreak. Open, honest discussions regarding ceilings of treatment and overall goals of care are not only essential to ensure that those with significant potential to recover receive appropriate care, but also that those who are very unlikely to survive also receive appropriate, end of life care.

Such decisions may have to be made when health professionals have not had the opportunity to get to know their patient as well as they would usually like, or may involve discussion with those close to the patient over the telephone or via internet-based communication facilities. While this is less than ideal, honest conversations are often what patients and those close to them actually want.

While palliative, end of life and bereavement care professionals cannot take over responsibility for this aspect of care and have the conversations for you, they should be able to support, advise and provide follow up care.

**Consider**

- don’t make things more complicated than they need to be; use a framework such as SPIKES:
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    - read clinical records, ensure privacy, no interruptions
  - **Perception**
    - what do they know already?; no assumptions
  - **Invitation**
    - how much do they want to know?
  - **Knowledge**
    - explain the situation; avoid jargon; take it slow
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