Care of the dying patient in hospital

Patients die in hospital every day, some receiving suboptimal care. This article focuses on the care of these patients in their last days specifically discussing medication review, symptom control, assisted nutrition and hydration, spiritual and religious needs, and documentation.

About 500 000 people die each year in Britain and about 290 000 (58%) die in hospital despite only 7% of the population saying this is where they would wish to be (Leadbeater and Garber, 2010). Hospital doctors need to know how to care well for patients who are dying: about 54% of complaints to the NHS are about care received at the end of life (Al-Qurainy et al, 2009) and not achieving a 'good death' can result in complicated bereavement and cause distress to staff (National Council of Palliative Care, 2006).

Once it has been recognized that a patient is dying this should be communicated to the patient, family and other health-care staff. Appropriate management plans should be started to ensure the patient has a symptom-free, peaceful and dignified death. Consideration should be given to whether the patient and family would benefit from a single room and if this can be obtained. However, it should not be assumed that everyone wants a single room when dying and this needs to be weighed against the needs of other patients in a ward area. Procedures should be stopped that do not support care at the end of life such as temperature and blood pressure monitoring and routine blood tests. Decisions regarding each intervention need to be made on a patient by patient basis; for instance, it should not be assumed that all dying patients who have diabetes should have their blood sugar monitoring discontinued. Procedures should be continued if they will aid symptom management at the end of life.

This article focuses on the practical elements of managing a patient who is dying in hospital including assessing the patient and family's understanding, medication review, symptom management, clinically assisted nutrition and hydration, spiritual and religious needs, and documentation. It does not include how to diagnose dying which is beyond the scope of this article.

Assessing the patient and carer's understanding

Ensuring that the patient, if possible, and the family understand that death is imminent is crucial in providing good holistic care. Communicating this in a sensitive, clear and empathetic manner is a vital skill for any doctor. Doing this allows the goals of care to be clarified and any concerns discussed. It also provides an opportunity to check if there is a lasting power of attorney, advance decision to refuse treatment or statement of wishes that may be relevant. If possible, clinicians should act on the patient's and/or family's specific wishes for end of life care.

Medication review

In the last days of life patients are often on many medications and become unable to take them as the ability to swallow deteriorates and/or other symptoms prevent adequate absorption. All medication needs regular review but this is even more important at the end of life and drugs which will not provide symptomatic benefit in the immediacy should be stopped. Discussion with and explanation to patients and relatives is important. Those which are essential are those which will provide symptomatic benefit. Anticipatory as required prescribing for the four common symptoms at the end of life is good practice (analgesic, antiemetic, antisecretory and anxiolytic/sedative). *Table 1* lists some common drugs that patients may be taking and suggests which can be stopped. For some

Table 1. Drugs at the end of life

Essential	Analgesic
	Antiemetic
	Sedative
	Anxiolytic
Consider stopping	Corticosteroids
	Hormones
	Hypoglycaemics
	Anticonvulsants
Non-essential	Antihypertensives
	Anti-ulcer drugs
	Antidepressants
	Laxatives
	Anticoagulants
	Long-term antibiotics
	Iron
	Vitamins
	Diuretics
	Arrhythmics

adapted from Fürst and Doyle (2005)

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drugs it is less clear whether they are continuing to provide benefit and these need careful consideration for each patient. Drugs that often cause particular difficulties are nitrates, corticosteroids and diabetic drugs.

Nitrates

Owing to reduced cardiac output in the dying phase the strain on the heart is less and the risk of angina is reduced. However, if the patient suffers from regular severe angina attacks it may be prudent to change oral nitrate to a transdermal patch.

Corticosteroids

Corticosteroids can be taken for a multitude of reasons, over variable courses and doses. When considering whether to stop them thought needs to be given to the risks and benefits, including why a patient is taking corticosteroids, how long the patient has been on them, at what dose and whether the patient has had symptomatic difficulties in the past when the dose has been reduced. For example a patient with prostate cancer who has been taking dexamethasone 2 mg daily for the last few months for appetite and wellbeing is unlikely to suffer any symptomatic burden on stopping the drug before death. However, a patient with a brain tumour on 12 mg dexamethasone which has been increased and decreased over many months for headaches and sickness may need to continue it for symptom control. Dexamethasone is available as 4 mg/1 ml for injection and can be given as a daily subcutaneous injection or as a continuous subcutaneous infusion via a syringe driver but does not mix well with other drugs.

Diabetes

Before death oral intake and nutrition is very limited and therefore the majority of patients taking oral or subcutaneous hypoglycaemics for type 2 diabetes will have had them reduced or stopped as blood glucose levels naturally drop. In the days before death hypoglycaemics can be stopped without any ill effect.

If near to death the patient is on large doses of insulin and control of blood sugar is still desired converting to a once-daily long-acting insulin such as insulin glargine can maintain blood sugar at a steady level and reduce the number of injections a patient needs (Twycross et al, 2009). If a patient has type 1 diabetes it is usual to keep him/her on insulin to prevent symptoms from ketoacidosis. Blood sugar should only be monitored when the information will change management such as when a patient is symptomatic from hyperglycaemia.

Symptoms

Many studies and clinical experience shows that patients experience a multitude of symptoms in the days before death, most commonly pain, nausea, confusion, agitation and noisy moist breathing (Fűrst and Doyle, 2005). Most of these can be prevented and/or treated.

Analgesia

Pain, one of the most feared symptoms of advanced disease, is present in about three quarters of patients dying, (Fűrst and Doyle, 2005) but is often poorly treated in hospital (Hicks and Rees, 2008). Near death, in addition to pain from the cancer itself pain can be caused by pathological fractures, immobility, muscle wasting, poor oral hygiene and pressure ulcers (Fűrst and Doyle, 2005; Hicks and Rees, 2008). Being able to deduce whether a patient is in pain from non-verbal cues can be difficult, as although grimacing and agitation can be caused by pain they can also be the result of other causes of distress. Treatment may therefore need to be empirical (Hicks and Rees, 2008). Several studies have shown that at the end of life using, and appropriately increasing, opioids does not hasten death (Sykes and Thorns, 2000; Portenoy et al, 2006).

Oral analgesia should be used whenever possible but analgesia via an alternative route should always be prescribed if needed. The favoured route for dying patients unable to take oral analgesia is subcutaneous; this is more acceptable than rectal and is less invasive and easier than gaining venous access in those near to death. Opioids given via this route should work within 15 minutes and last for up to 4 hours. If cannulae exist, either peripheral or central, they should be considered as routes of administration but there should be explicit plans about what to do if they fail. Other measures can also be considered depending on the cause of pain. Good pressure care and appropriate mattresses can ease pain caused by immobility and pressure while local treatments such as dressings and local anaesthetic gels can provide pain relief to specific areas.

In deciding what analgesia is required consideration needs to be given to whether patients are already taking opioid analgesia.

Patients not on regular opioids

Morphine sulphate, or equivalent, for injection 2.5–5 mg subcutaneous should be prescribed as required. The choice of opioid will be determined by other comorbidities such as renal failure. If a patient is taking oral paracetamol, non-steroidal anti-inflammatory drugs or neuropathic agents these can normally be stopped without any adverse effect. Diclofenac can be given rectally and ketoralac and diclofenac can be given subcutaneously but specialist advice should be sought.

Patients on regular opioids

Those patients who are already on a regular oral opioid need this to be converted to a subcutaneous route. Conversion ratios for opioids vary between areas and local policies should be consulted. A syringe driver will deliver a continuous infusion of analgesia via a subcutaneous route. For example, a patient on modified release morphine sulphate tablets 30 mg twice daily is taking 60 mg over 24 hours, so this would need to be converted

to the equivalent subcutaneous dose which is commonly half of the oral dose, i.e. 30 mg morphine sulphate for injection over 24 hours subcutaneous. Medication given by continuous subcutaneous infusion takes between 2–4 hours to be effective so a stat dose should be given when the infusion starts.

As required analgesia should always be prescribed alongside regular analgesia. For example patients on a subcutaneous infusion of morphine via a syringe driver should have as required morphine written up as a sixth of their total daily dose, i.e. a patient on 30 mg morphine sulphate subcutaneous over 24 hours should have 5 mg morphine subcutaneous as required.

The patient's analgesia requirement should be reviewed every day and if a patient has required an extra two doses the medication in the syringe driver should be increased accordingly. A safe increment would be to increase the amount by 30–50% of the previous dose or to add in the total of the previous 24 hours as required doses.

Analgesic patches containing fentanyl or buprenorphine should be continued and not removed in the last days of life (Hicks and Rees, 2008) but if additional analgesia is required then a syringe driver should be started with an appropriate opioid rather than increasing the patch strength because of the time for any increase to take effect.

Breathing problems

Breathlessness is often multifactorial at the end of life, caused by muscle weakness and respiratory infection in addition to the effects of the underlying condition on the lungs. Oxygen is rarely symptomatically beneficial at this stage and may increase mouth dryness. Using a fan to blow cool air across the face can provide some relief. Tachypnoea may be eased by opioids and anxiety caused by breathlessness by midazolam (5 mg subcutaneous as required or 10 mg/24 hours). If the patient is opioid naive 2.5–5 mg subcutaneous morphine should be tried or in a patient on regular opioids a sixth of the total daily dose of opioid. A combination of morphine and midazolam may be more effective than either drug alone (Navigante et al, 2006).

'Death rattle' is noisy breathing caused by air passing over accumulated secretions in the oropharynx or bronchial tree in patients who are close to death and unable to clear secretions by coughing and/or swallowing (Bennett et al, 2002). It occurs in about 50% of patients in the last days of life, most commonly in patients with lung or brain tumours (Morita et al, 2000; Back et al, 2001). The patient is usually too drowsy to be aware of his/her noisy breathing. Some relatives find death rattle distressing, especially if they interpret that the patient might be drowning or choking, while others deal with it in a more matter of fact way and find it a useful warning sign that death is imminent (Wee et al, 2006a,b).

Repositioning the patient to a lateral or more upright position may be helpful (Bennett et al, 2002) but regular suction should generally be avoided as pharyngeal stimulation may cause undue distress. As with any symptom, discussing the cause with the family can help reduce their distress. Antimuscarinic drugs should be administered as soon as death rattle is heard as once secretions are pooled in the oropharynx drugs will not eliminate them. Hyoscine hydrobromide and hyoscine butylbromide (Buscopan) are the most commonly used drugs in hospital and are effective in up to 80% of patients, although glycopyronium may be used in other settings (*Table 2*) (Bennett et al, 2002).

Nausea

It is unusual for nausea, and especially vomiting, to become problematic in the last days of life if patients have not already experienced it. It is inappropriate to seek reversible causes at this stage. A centrally acting antiemetic is the most helpful and practice varies between hospitals as to which is recommended first line (*Table 3*). If an antiemetic is needed giving this as a continuous subcutaneous infusion rather than relying on as required administration provides better symptom control.

Agitation and delirium

Many patients become restlessness in the last days of life and a smaller number develop hyperactive delirium. Detailed investigation is rarely appropriate as there are usually multiple causes, most of which are irreversible (Spiller and Keen, 2006; Leonard et al, 2008). However, the patient's abdomen should be palpated to exclude urinary retention and consideration given to nicotine replacement therapy in patients who are heavy smokers.

The patient should ideally be nursed in quiet, calm environment and extreme family distress should be

Table 2. Drug management of death rattle

Drug	Stat dose subcutaneously	24-hour range subcutaneously	Comments
Hyoscine butylbromide	20 mg	60–120 mg	Incompatible with cyclizine
Hyoscine hydrobromide	200–400 μg	1.2–2.0 mg	May cause agitation and confusion
Glycopyronium	200–400 μg	1.2–2.0 mg	

Table 3. Antiemetics

Drug	Stat dose subcutaneously	24-hour range subcutaneously	Comments
Haloperidol	1.5–3.0 mg	1.5–10 mg	Useful if delirium co-exists
Cyclizine	25–50 mg	100–150 mg	Incompatible with hyoscine butylbromide
Levomepromazine	6.25–12.5 mg	6.25–25 mg	Higher does may be used if sedation also required

addressed as this may exacerbate the patient's unrest. If there are signs such as plucking at bed clothes, hand gestures or myoclonic jerking, delirium may be present and an antipsychotic drug should be given; haloperidol 1.5–5 mg subcutaneous as required or 3–10 mg subcutaneous over 24 hours.

Benzodiazapines are useful for anxiety and restlessness but may exacerbate delirium if used alone (Lonergan et al, 2007). Midazolam, the preferred subcutaneous benzodiazepine, can be given 5 mg as required or 10–60 mg over 24 hours. Smaller doses should be used in the elderly or patients with renal or hepatic failure. Midazolam has a short half-life (Stiefel et al, 1999) and if patients require more than two doses in 24 hours then a subcutaneous infusion should be started.

It may be difficult to distinguish emotional distress from physical pain in patients unable to communicate verbally and it is often helpful to administer an analgesic and a sedative together, e.g. morphine and midazolam, but increasing doses of opioids should not be used as sedatives as they may exacerbate agitation and delirium.

Levomepromazine, more commonly used in palliative care at low doses for its broad spectrum antiemetic effect, is a useful second-line antipsychotic when sedation is required; 25–50 mg subcutaneous as required or 50–300 mg subcutaneous over 24 hours. If a patient is requiring more than 60 mg of midazolam in 24 hours advice should be sought from the palliative care team as phenobarbital is sometimes needed in extreme agitation (Stirling et al, 1999).

Other symptoms in the last days

If fitting has occurred, particularly in patients with epilepsy or primary and secondary brain tumours, and the patient is no longer able to swallow oral anticonvulsants, a subcutaneous infusion of midazolam 30 mg over 24 hours should be started. It is uncommon for a patient to start to fit in the last days of life if fitting has not previously been a problem.

Catastrophic bleeding is thankfully rare but is highly distressing for both relatives and staff when it does occur. If there is a high possibility of major bleeding then clinicians should seek advice from specialist palliative care (Pereira and Phan, 2004).

Clinically assisted nutrition and hydration

The benefits, burdens and risks of clinically assisted hydration by intravenous or subcutaneous infusion of fluids need to be carefully considered when patients are no longer able to take fluids safely by mouth at the end of life (National Council for Palliative Care, 2007; General Medical Council, 2010). Potential burdens of clinically assisted hydration in patients who are dying include the discomfort associated with repeated attempts to establish intravenous access, fluid overload with peripheral and pulmonary oedema and worsening respiratory secretions (Morita et al, 2005). Infusions may also 'medicalize' the last hours of life and discourage relatives from touching or being close to the patient. Hunger is uncommon in patients at this stage of their illness and while parenteral hydration may improve thirst it will not improve the sensation of dry mouth, for which good mouth care is imperative (McCann et al, 1994). Clinically assisted hydration will not reverse the dying process but may prolong the dying phase. The potential benefits of intravenous or subcutaneous infusions include improved control of some symptoms such as delirium (Lawlor, 2002).

Relatives may find it particularly distressing to see someone they care for unable to swallow and may feel the patient is being denied a basic human right. It is important to discuss how stopping drinking is a natural part of the dying process and how the patient is dying from the underlying disease not from dehydration.

Spiritual and religious needs

Spirituality is concerned with universal issues of the purpose and meaning of life (Rousseau, 2000) and a person's spiritual needs should be addressed throughout the illness, not just in the last days of life (Speck et al, 2004). Religious needs are a part of, but distinct to, spiritual needs. Religion is an expression of spiritual belief through a framework of rituals, codes and practices (Rousseau, 2000) and it is often these that predominate in the last days of life when the patient is unable to talk. Religious beliefs and customs may also impact on the care of the patient after death, for example patients of Jewish or Muslim faith wish to be buried within 24 hours of death. Unaddressed spiritual or religious concerns may exacerbate agitation and restlessness and patients and families may benefit from input from the hospital chaplaincy team.

Documentation

Many hospitals and increasingly primary care teams and care homes have a version of the Liverpool Care Pathway for the Dying to guide, document and ultimately improve the care of dying patients (Ellershaw et al, 1997; Marie Curie Palliative Care Institute Liverpool, 2009). This multi-professional pathway sequentially details the important tasks in the last days of life and immediately after death. It acts as a useful prompt, especially for inexperienced medical and nursing staff, and incorporates guidelines on managing the five common symptoms experienced at the end of life (Jack et al, 2003). There are specific pathways for patients dying with renal or heart failure and patients dying on intensive care units.

The decision not to attempt cardiopulmonary resuscitation should ideally have been made before the patient is in the last days of life but for some patients with a rapidly changing condition the burdens may not outweigh the benefits until closer to death (Regnard and Randall, 2005; British Medical Association, 2007). It is important to ensure the decision, made by a senior

clinician, is correctly documented and that the documentation is appropriate if the patient is to be transferred to another place of care (General Medical Council, 2010).

If a patient is being discharged from hospital to die at home then is it imperative that documentation around decision not to attempt cardiopulmonary resuscitation is completed for the journey home. Local practice will vary as to whether the same documentation is also valid once the patient is at home.

Conclusions

Caring for the dying patient is an important part of a hospital doctor's job and it is crucial that it is done well. Simple measures such as reviewing and prescribing appropriate medication can have great impact and ensure a good death. Regularly reviewing patients in the last days of life is important for both patients and families. Good communication with the patient, family and health-care team can improve the dying process. There is support available from hospital palliative care teams if advice is needed and they would expect to be involved with patients who have symptoms which are difficult to control. Last do not forget the impact that a death of a patient can have on you and your colleagues: supporting each other ensures you can care for the next patient. **BJHM**

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KEY POINTS

- Hospital doctors will commonly encounter patients who are dying.
- Medication should be regularly reviewed and non-essential drugs discontinued.
- Dying patients commonly experience pain, confusion, agitation, breathlessness, noisy breathing and nausea.
- All patients require as required analgesic, antisecretory, anxiolytic or sedative, and antiemetic prescribing.
- The benefits, burdens and risks of clinically assisted hydration should be carefully considered in patients no longer able to take fluids by mouth.
- Patients' spiritual and religious should be addressed alongside physical symptoms.
- Necessary documentation to improve care should be completed.