

ETHICAL ISSUES ON AWAKE THORACIC SURGERY FOR SERIOUSLY CHRONICALLY ILL PATIENTS

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Patients of any age with a serious progressive illness and a limited life expectancy that ranges up to a few years can be managed by palliative care. The aim of palliative care is to improve quality of life for patients and their families. In the USA, patients who are willing to forego curative treatment and have a prognosis of survival of ≤ 6 months live under hospice care. Advanced communication skills have to be used to establish goals of care for patients in palliative and hospice care.¹ Even if these patients have limited life expectancy, they can often remain physically stable and contribute positively to their close environment and to society.

Despite a certain degree of decreased physical capacity, a patient may still want to live longer due to life goals that can involve commitments to full or part-time work such as teaching, or caring for minors or for a disabled family member. The patient may also not wish to miss out on important life occasions, such as witnessing the birth of a child, or they may wish to live longer simply because of a reasonable quality of life in spite of serious illness.

As we do not know how long a patient will live whilst receiving palliative care, we have to treat reversible medical problems if the patient expresses a wish to benefit as much as possible from their remaining life time. This implies that treatment must be individualised and adapted to the patient's needs, requiring a thorough discussion with the patient and their loved ones.¹ Meier and Mandrola,² who are specialists in palliative care, have come up with a rule "to manage the person, not the prognosis."

Thoracic surgery is an important therapeutic option in the management of reversible causes of

breathlessness and pain, with the aim of relieving acute symptom distress in the palliative patient. In the literature, the treatment of reversible, acute worsening breathlessness is one indication to use awake thoracic surgery (ATS) for patients with severe chronic respiratory disease involving surgery of the pleural space, lungs, and the mediastinum.³

General anaesthesia (GA) and intubation remain the last resort for thoracic surgery as these procedures are linked with a high risk of morbidity and mortality in severe chronic respiratory disease patients.⁴⁻⁹ Consequently, we need to offer the patient less harmful and less invasive alternatives to these anaesthetic techniques such as ATS, before resorting to the use of GA with all of its additional risks.

In the case of acute worsening but surgically reversible dyspnoea in patients with severe chronic respiratory disease, ATS can be used to help achieve the goal of palliative or hospice care in relieving unnecessary suffering and it can limit postoperative complications caused by GA. ATS is indicated if the risks of GA outweigh the benefits and if thoracic surgery under spontaneous respiration is considered of less risk to the patient when compared with ventilation under GA.³

Most patients want to spend the rest of their life at home, especially those who benefit from medical care at home and who are well supported by their family, so that they can join their loved ones during their terminal phase.

ATS is part of the focussed care for a good quality of life with the aim of returning the patient to the status quo of stability as it was prior to the acute reversible symptom. This can minimise

hospital stays, leading to quick discharge of the patient, and allowing a quick return to their social environment.

Particularly for patients within a palliative care setting at home, the hospital environment can be seen as a hostile place that risks social isolation, nosocomial infections, sliding into aggressive medical treatment, and exposure to medical errors in a complex hospital system generally characterised by under-staffing and over-stretched resources. Interestingly, hospitalisation has been noted as a major contributor of death in the USA.¹⁰ Consequently, it is imperative to avoid hospitalisation as much as possible by choosing the anaesthetic technique that carries the lowest risk of morbidity. ATS can allow a patient to avoid a long stay in an intensive care unit (ICU), resulting in fewer postoperative complications and less burden to nurses and to the patient's family. In general, ATS has been shown to be safe and safe, and is as efficacious as thoracic surgery under GA, with quicker hospital discharge and lower overall costs.^{11,12}

The perioperative goals of ATS are to provide physiological comfort, maintain gas exchange, cardiovascular stability, and psychological comfort by reassurance or, if necessary, by sedation without significantly depressing spontaneous respiration. In light of perioperative sedation, the possibilities of anaesthetic techniques for ATS are still not fully explored, such as the application of hypnosis in an awake patient during ATS.

Table 1: Possible outcomes for anaesthetic management of thoracic surgery for seriously chronically ill patients.

Patient categorically refuses any further therapy and wants limitation of treatment.
Patient wants GA, no ATS, but does accept ICU ventilation.
Patient wants GA, no ATS, and refuses ICU ventilation.
Patient chooses ATS, and accepts conversion to GA with ICU ventilation.
Patient chooses ATS, and accepts conversion to GA but does not accept ICU ventilation.
Patient wants ATS but no GA. ¹⁵

GA: general anaesthetic; ATS: awake thoracic surgery; ICU: intensive care unit.

Not only does hypnosis replace sedation but it can also be therapeutic and improve mental well-being during surgery, in contrast with GA which just leads to a knock-out effect.^{13,14}

As healthcare is nowadays under a budgetary pressure, obtaining thorough consent and performing appropriate shared decision making with the severely ill patient can be seen as time-consuming. However, time well spent in thorough discussions that lead to a conscientiously obtained informed consent is also time saved if the outcome does not go the way it was planned. Independent of acute events, the patient has the right to know that they could die at any moment due to the severe chronic disease. If this information is withheld, we deny the person a chance to catch up on missed opportunities both before and after ATS, which the patient still wants to realise in the remaining life time.² Telling the full truth to the patient and their family, as far as they can understand and accept it, is imperative to avoid any misunderstanding if things do not go as expected.

During ATS, it is important to keep in mind that at any given moment intubation might be indicated and the patient must know that conversion to GA is not necessarily a failure but a part of the contingency plan, or the next step after ATS. The outcome of a discussion during informed consent can result in different scenarios as described in [Table 1](#).

The management of a patient's refusal of further treatment, such as admission to an ICU, strongly depends on the country's laws. In an ideal world, it should be the rule that doctors in charge have support at hand in case there are legal issues and issues of consciousness, as highlighted in the scenarios in [Table 1](#). In some countries, medical teams are obliged by legislation to pursue treatment even if the patient does not want to continue aggressive treatment.¹⁶ However, there remains a point for all doctors at which treatment can no longer continue against the wish of a severely ill patient when there is no further chance of improvement and when patient decline is rapid and getting out of control. Nevertheless, although doctors are obligated to abide by the law, in order to be of service to the patient they must state during informed consent that conversion to GA during ATS is a step taken to avoid unnecessary suffering, whatever the outcome may be. Once the patient is intubated, their fate may be decided by the natural evolution of the disease

process and its combination with a higher risk of a bad outcome for ventilated patients with severe progressive respiratory disease.¹⁷⁻²⁰ Patients who understand the high risk of ventilator dependency and have previous experience with long ICU stays, are usually highly motivated to undergo ATS if they have been well informed about its risks and benefits and the potential conversion to GA that also includes the possibility of a bad outcome.¹⁵

In summary, ATS has been shown to be safe in patients with severe breathlessness, allowing ventilator dependency to be avoided and patient hospitalisation shortened. It contributes to a quick recovery that gives patients the opportunity to join loved ones and even to rewrite some chapters of their life, healing old issues from the past.² All palliative patients I have previously dealt with were grateful for undergoing ATS, especially those who still remember their past experience of GA which subsequently confined them for weeks to the ventilator in the ICU.

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