Treatment escalation planning for surgical patients

Why is it important to initiate advanced care planning before crisis strikes?

Cardiopulmonary resuscitation (CPR) was introduced in the 1960s as a treatment that might restart the heart after sudden cardiac arrest. The probability of success is multifactorial, influenced by age, pre-existing health conditions and the circumstance surrounding the arrest. In those with advanced chronic disease, the likelihood of successful CPR is relatively low. 'Do not attempt CPR' (DNACPR) decisions were introduced to prevent resuscitation where it was not wanted, would not work or would not provide overall clinical benefit. A British Journal of Surgery article states that 'a good surgical death requires clear communication to understand patients’ goals of care', yet it is well documented that medical staff find discussions surrounding advanced care planning and resuscitation challenging. Despite national guidance from the Resuscitation Council, discussions about resuscitation are felt by many to have a negative tone. Poor communication, misunderstanding and inconsistent documentation persist in the clinical setting, with reports that conversations about resuscitation can occur badly or are not attempted at all, resulting in futile or inappropriate CPR attempts.

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interventions, including CPR, they wish to receive in the event of deterioration in their health, whether progression of a chronic condition or an unexpected illness or injury.1 Treatment escalation plans were originally introduced in southwest England in 2006 to improve patient involvement and experience, and to clarify a wider remit of treatment options beyond CPR.4 They are now widely used in the UK as a tool for the healthcare team to explore a shared understanding among the patient and their family about realistic care preferences and as a method of documenting advanced decisions about life-sustaining management.2,3 Consideration of choices as ‘treatment options’ is perceived by both patients and healthcare professionals as a more positive approach than the predominant focus on decisions about which treatments (including DNACPR) to withhold.1

It is current practice at one NHS trust that a ‘decision regarding CPR must be made on all adult inpatients… based on individual assessment of each patient’s needs’; exceptions are obstetric and daycase surgery patients and those admitted to intensive care.1 An audit of practice was conducted to assess whether surgical services were compliant with the local policy. The notes for all patients admitted under a surgical specialty at a given point in time were reviewed to see whether a treatment escalation plan was completed, by whom and at what time in relation to admission date. When audited, 67.4% of 184 surgical patients had a treatment escalation plan completed, with 23 patients documented as DNACPR. Compliance varied by department, with over 90% of cardiothoracic and orthopaedic patients having a documented treatment escalation plan, typically in advance of surgery and completed by a consultant or registrar. Approximately 60% of plans were completed by senior house officers or foundation-year doctors, usually within 0–3 (median = 1) days of admission. There was only one community treatment escalation plan form signed by a GP documenting a DNACPR decision. A small proportion of patients had a treatment escalation plan from a previous admission without a documented review of clinical circumstance or had a perceived inappropriate decision with no rationale documented in the clinical notes.

The results of this local study reflect what is reported nationally – that there is considerable variation across specialties and hospitals.5 On presentation of results, feedback highlighted wider cultural issues within surgical practice, including whether treatment escalation plans are relevant for surgical patients, whether there are different requirements between surgical specialties, who is responsible for documenting the decisions, and when is the most appropriate time to discuss advance planning and resuscitation with emergency and elective patients.

The National Cardiac Arrest Audit (NCAA) 2017/18 reported that 15,432 patients admitted under a surgical specialty at baseline than those described in the wider medical literature; this may also be reflective of the superior outcomes of cardiorespiratory arrest to discharge varies considerably and is heavily dependent on the cause and circumstances, as well as patient factors including comorbidities. In most hospitals the average survival to discharge is in the range of 15–20%, although the NCAA reported 21.9% in 2017/18. A study of surgical patients reported a 19.2% rate of survival to hospital discharge and argued that surgical patients who receive CPR may be healthier patients at baseline than those described in the wider medical literature; this may also be reflective of the superior outcomes of intraoperative cardiac arrests.9 Incidence of cardiac arrest varies by surgical specialty, attributable to the pathophysiology of the disease process and, arguably, to the nature of the procedures undertaken. Cardiac and vascular surgery patients, for example, are more likely to suffer cardiac arrest than those undergoing plastic surgery.9 Across the specialties, an ageing population and higher life expectancy means that we are increasingly operating on patients who have extensive comorbidities. A US study of 1.8 million patients reported that approximately one-third underwent an inpatient surgical procedure in their last year of life and one in five within the last month.10

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multiple comorbidities. Of approximately 6,400 non-trauma patients who received CPR, only 40.6% had undergone emergency surgery, the remainder being non-emergency/elective. Some 85.5% of arrests occurred postoperatively and approximately 50% within five days of surgery.7 In the modern NHS, with frequent handover of patient care and medical emergency teams responding to cardiac arrest calls, it is highly likely that a member of the surgical team may not attend at the point of cardiac arrest. If they do, they may not know the patient. Clear, unambiguous documentation is crucial for appropriate management in an emergency situation to avoid devastating results for patients ranging from an undignified death where CPR was clearly futile or failure to initiate CPR where it had a chance of saving life.25

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When patients present as an emergency without an advanced directive, where surgery may be an option, there may be insufficient time to have an appropriate discussion about treatment options. The patient may be unable to contribute to the discussion or may lack the capacity to decide, and conversations will be more stressful for all involved.1 This situation lends itself to the traditional, paternalistic approach that many surgeons will be used to, where the clinical team acts in the patient’s best interest using the information they have available to them. However, the ACS-NSQIP study reported that nearly 60% of patients underwent non-emergency surgery.3 Conversations are best initiated when people are relatively well, with time to discuss treatment options and consider their preferences before a crisis occurs.3 Potential complications are discussed with elective surgical patients during the consent process, and this would be an appropriate time to discuss patients’ wishes relating to treatment escalation in various circumstances. All surgical patients could suffer complications, and resultant effects will vary substantially between individuals; in patients who have suffered cardiac arrest, three-quarters of complications, including sepsis, hypotension and acute impairment of renal function, occurred before or on the same day.3 One small study reported no statistically significant difference in anxiety preoperatively and postoperatively for patients or relatives when treatment escalation plans and resuscitation had been discussed.4

This leads us to the elephant in the room. Surgeons value patients’ preferences and quality of life when making decisions about surgery,5 but some health professionals are not comfortable confronting end of life discussions.7 Doctors have reported inadequate training, low confidence, inexperience and embarrassment, together with fears about complaints, a desire not to cause anxiety or distress and a perceived resistance from the patient as barriers to discussion.5,6 It is often difficult to communicate realistic estimates of risks and benefits to patients and families relating to high-risk surgery while encouraging or maintaining a hopeful attitude,8 but this does not mean that surgeons should shy away from the task. Evidence suggests that doctors may underestimate the numbers of patients who wish to discuss DNACPR status and advanced care planning,9 perhaps because of their own innate bias. Patients welcome these conversations, but they require delicacy, acknowledging mortality and all while addressing any unrealistic patient-held expectation of the success of resuscitation efforts.10 Decisions around DNACPR are not binary; they can be dynamic and can be reviewed depending on circumstance. DNACPR can be suspended for a time (ie intraoperatively) where likelihood of CPR success is higher, but the point at which the DNACPR decision is reinstated should also be discussed, agreed in advance and documented.1

These barriers should be tackled at national and international policy levels through targeted campaigns to change culture.7 The Recommended Summary Plan for Emergency Care and Treatment (ReSPECT; www.respectprocess.org.uk) is a new emergency care plan developed to support conversations and record recommendations arising from discussions between clinician and patient or those close to the patient.2,9 When these discussions are initiated with people who are well, there is a risk that they will underestimate the state of ill health that they can tolerate and the interventions they might want. There may be benefit in thinking through possible future issues and complications; this earlier conversation may prepare the person for the acute situation and may reduce the need for medical and surgical escalation at the end of life.2,9 The role of the surgeon is not limited to the operating theatre; surgeons have a responsibility to engage with patients on a holistic level, which may require some of the surgical bravery traditionally reserved for challenging operations to be redirected towards challenging conversations and cultural shift.

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**References**