Case 8: Operating with limited / inadequate resources

Key words: partiality; best interests; professional standards; scarce resources in emergencies; end of life care; euthanasia is emergencies

You have been deployed to an earthquake zone as part of a field hospital, arriving 48 hours after the initial earthquake. The local authorities request additional surgical support to help in a more remote area. You and a colleague (one surgeon and one nurse) volunteer and are dropped in the area by helicopter with some further, but limited, supplies. You find a temporary surgical theatre set up in a school. Walking to the building, you pass rows of tents filled with waiting patients. You are told that surgery was reserved initially for life-threatening cases. These have now been taken care of, and other less urgent patients are being seen. The local medical staff have worked non-stop for over 48 hours and need rest. The hospital director asks you two to take over. You immediately start helping local staff to manage and treat the remaining patients.

As you reach your 36th hour of non-stop surgery, you are told that supplies are again running low. No anaesthetic or antibiotics remain, and the only remaining analgesics are a tiny amount of morphine, some paracetamol and non-steroidal anti-inflammatories. Everyone working in surgery is exhausted. You decide to suspend any further major surgery until supplies arrive. This may be a couple of days – the resupply chain is not clear, and communications are somewhat unreliable in this part of the country.

One of the local nurses you have been working with begs you to see her cousin. He has been waiting patiently for 2 days, but has now lost consciousness. He has an open compound fracture of the left tibia and fibula. He lies motionless, and is tachypnoeic, sweating, febrile and very pale. The soft tissue around the wound is a deep purple colour, oozing pus, and smells putrid. The nurse pleads with you to operate to amputate his leg.

[This case is adapted from from Bilal MS, Rana MH, Rahim S, Ali S. Psychological trauma in a relief worker—A case report from earthquake-struck areas of north Pakistan. Prehospital Disast Med 2007;22(5):458-461. It was brought to our attention by Dónal O'Mathúna (donal.omathuna@dcu.ie), Chair of COST Action IS1201 Disaster Bioethics.**]**

Issues raised by the case

1. Maintaining professional standards in an extreme environment / situation.

2. Patients' best interests - beneficence versus non-maleficence.

3. Recognising staff exhaustion and judgement – 'burn-out', and compassion fatigue.

4. Recognising that situational context can often drive the limits of the concept of medical futility.

4. Achieving 'fairness' (justice principle) vs partiality for colleagues.

This material was produced by the research project 'Military healthcare professionals' experiences of ethical challenges whilst on Ebola humanitarian deployment (Sierra Leone)'. The project was funded by the UK ESRC and the Royal Centre for Defence Medicine (Academic & Research). See: http://www2.warwick.ac.uk/fac/med/research/hscience/sssh/newethics/bioethics/milmed/ebola/

5. End of life care in disasters

Potential learning outcomes

1. Identification and consideration of pertinent ethical issues.

2. Coping with moral distress – what do you do when there really is no good option?

3. Increased understanding of ethical issues in extreme environments and situations.

4. Beginning to understand how ethical issues may be anticipated and avoided.

1. Examine the ethical arguments for and against performing an amputation without anaesthetic on this patient. On balance, what would you do and why?

***Arguments FOR**:*

- *Patient's only realistic chance of survival at this point.*
- *Patient is already unconscious - so pain should hopefully be minimised.*
- *No antibiotics are available to treat the patient conservatively.*
- *There is a strong compulsion to support the local nurse and help her cousin.*
- *Positive action (regardless of success of outcome) may help safeguard good faith with the local healthcare staff and wider community.*

***Arguments AGAINST**:*

- *He is unconscious and whilst an amputation might by he only option, he is not able to consent. (see notes for case 3)*
- *The patient is already very unwell – he may be unlikely to survive the operation, or the immediate post-operative period due to lack of resources.*
- *There is no significant analgesia available.*
- *Operating may just prolong his suffering – especially without analgesia. Is it kinder not to intervene at all?*
- *Staff are exhausted (compassion fatigue) – with the consequence that they may become sick and not be able to resume duties.*
- *Due to the above, further operating and post-op care capability is likely to become compromised.*
- *All patients should be treated fairly - it should not matter that it is the local nurse's cousin.*
- *If this case ends badly it may result in a deterioration of relations with local healthcare staff and the wider community. Responders to the earthquake in Haiti were criticised for performing unnecessary amputations.*

2. If a decision is made to operate, is it ethically justifiable to carry out a speedier guillotine amputation that cuts straight across the whole leg quickly, as you have no anaesthetic?

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Here we are looking at what to focus on – either the long term or the short term consequences of an action.

The least immediately painful and distressing option is a guillotine amputation. However, in the long term the wound will take much longer to heal, will be more painful, will be much more likely to get infected and walking in the future will be much more problematic and painful. Historically, prior to the advent of general anaesthetics, surgeons relied on the fact that most of their patients would pass out with pain during such amputations. Such a course of action would mean making an arguably unethical regression to brutal 19th Century surgical methods.

3. If you decide that it would be unethical to operate without anaesthetic, and you are convinced that the patient will die anyway, what are the ethical arguments for and against using the remaining analgesic supplies to end his suffering quickly (and would this represent the doctrine of double effect)?

Here students are being asked to look at the arguments around euthanasia.

***Arguments For**:*

- *Compassion & best interests of the patient - to alleviate pain and suffering where there is no hope of recovery (in the present circumstances; could change if resupplied).*

- *It is difficult to see how compassionate alternative can be provided in emergencies (learners should be encouraged to consider alternative, however, such as care by family members and even other patients)*

- *If the patient asks - you may also be able to use autonomy arguments.*

Arguments against:

- *Sanctity of life - professional obligation and duty is to save life, not to deliberately take life or hasten its end. This may in turn lead to erosion of trust in the medical profession.*

- *We do not absolutely know that the patient will not survive, he may respond to rapid surgical treatment, or other supplies or help may arrive.*

- *Euthanasia should not be used as a first resort in place of end of life care. Although he may die in pain, he could be comforted and provided with other compassionate care. Medical supplies may arrive in time to enable this.*

- *The last of the morphine should be used to ease the pain of a patient who will survive (so as to enhance their prospects of survival etc).*

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