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Futility in surgery: We should talk about it

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The concept of futility in surgery is becoming more and more relevant, particularly in the context of an ageing population and increasing numbers of medically complex high-risk surgical patients. The idea of futility can be traced back to Hippocrates, who advocated that physicians should "refuse to treat those overmastered by disease" when medicine can no longer offer benefit. In modern medicine, futility can be described as either quantitative, where death happens within a short period (48-72 hours) from an intervention, or qualitative, where the intervention may not meaningfully improve the patient's quality of life.

One of the key challenges is determining when treatment becomes futile, and ensuring that both healthcare providers and patients understand the reality of the situation. According to medical ethicist Bernard Lo [1], futility is guided by several principles: a low chance of treatment success, no physiological basis for the treatment, and treatment outcomes that do not align with the patient's wishes or the healthcare provider's goals. Additionally, when treatment does not improve the quality of life or requires resources disproportionate to its benefit, it may also be considered futile. The last point may be perceived as being not clinically oriented, but it is particularly poignant in both limited resource -for obvious reasons- and higher resource settings, as the cost of healthcare increases above inflation rates on a yearly basis – and is likely to keep on doing so, as more people live longer with more chronic illnesses.

Incorporating patient involvement is critical to addressing these ethical concerns. Recent studies have shown that when patients are more involved in decision-making, they experience fewer regrets after surgery, even if complications arise [2]. Postoperative regret is more likely when patients are not fully informed of the risks, further emphasising the importance of clear, transparent communication between medical teams and patients.

Furthermore, involving the family or people closest to the patient and keeping them informed is of paramount importance. Their input regarding the patient's expressed wishes and views regarding their care is valuable, especially in the cases where the patients themselves are unable to voice them. Cultural differences should be taken into account; however, the surgeon's ultimate duty is to the patient, ensuring they receive *timely, appropriate, considerate and holistic care*.

The concept of futility becomes particularly significant in emergency surgery, where the stakes are higher, and outcomes are often less predictable. For surgeries involving older patients or complex conditions, the risk remains substantial, leading to longer hospital stays and higher rates of postoperative complications. The National Emergency Laparotomy Audit (NELA) emphasiszes – amongst other things- the importance of risk scoring. By employing tools like the NELA risk calculator (validated in the Greek population by the group of Lasithiotakis et al [3]), clinicians can be better informed in their decision making and the need for additional resources.

The work by Javanmard-Emamghissi [4] an analysis of the outcomes of extreme risk patients from NELA showed astonishing findings. The 90-day survival for patients with a NELA score 50–59% was 43%, 34% in group 60–69, 27% in group 70–79 and 17% in group 80+. *More than half of the extreme-risk patients did not survive 30 days.* There has been a notable trend in the NELA database over the years, where fewer extreme-risk patients are being operated on, indicating a shift towards recognizing and accepting the futility of certain interventions.

Ultimately, futility in surgical care must be addressed with a patient-centred approach. While clinicians are responsible for assessing the potential outcomes and risks, involving patients in these discussions is crucial. This not only respects their autonomy but also ensures that medical interventions align with their personal values and desires.

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In this way, the concept of futility transcends a purely clinical assessment, incorporating a moral and ethical dimension that prioritises the patient's well-being and quality of life.

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