

Win-win for sustainability and health

Reducing complications and surgical activity with perioperative care and shared decision making.

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The basics of sustainability are reduce, reuse and recycle. The first of these perhaps has the most impact but is the most difficult to measure or appreciate. Reducing resource use in the surgical setting may be achieved through reducing the complication rate and undertaking fewer operations. Over 10% of operations are bedevilled by complications¹ and 14% of patients report regret.² Seven per cent of patients are responsible for half of hospital costs – and these are generally the patients requiring unplanned additional care.³

Data on variation in rates of operation give a marker of the potential to use surgical care appropriately. For example, there is a three-fold variation in primary hip replacement by region.⁴ NHS England’s long-term plan included reorganisation to enable prevention, with underwhelming results. The failure of such prevention initiatives has been attributed to the inadvertent exclusion of surgeons and other erstwhile trusted decision makers.⁵ Publications listing ‘procedures of limited benefit’ and commissioning decisions can perversely lead to surgeons and patients colluding to fight perceived rationing.

While it is accepted that safer care is usually more cost effective, there should be different messages for different audiences. Patients need to hear that care is better rather than cheaper. The level of cognitive dissonance around health should be acknowledged. Every person would agree with the wisdom of optimising the use of resources in general but may request additional scans or intervention for their own or their family’s health.

Surgeons should lead. The messages on the role of surgery and of alternatives should be clear. The huge potential scale of reduction in complications should be understood, with education in techniques of motivational interviewing and discussion of risks to achieve this.

SUSTAINABILITY THROUGH REDUCTION IN COMPLICATIONS

Reducing complications features highly in surgical practice. Interventions include prophylaxis for thromboembolism and correction

Table 1 Tips and advice for intervention with each modifiable risk factor. Adapted from: *Exercise: The Miracle Cure and the Role of the Doctor in Promoting It*⁷

Factors for potential intervention	Tips and advice
Smoking	<ul style="list-style-type: none"> » Every tobacco-free week after 4 weeks reduces complications by 19%.⁸ » Smokers have double the complications.⁸ » The craving only lasts 90 seconds. » Know your triggers; have goals and strategies. » Get family support.
Nutrition (including diabetes, obesity and anaemia)	<ul style="list-style-type: none"> » Fruit, vegetables and protein for wound healing and repair (Figure 1). » Smaller portions. » Low carbohydrate diets help reverse type 2 diabetes; avoid a high carbohydrate intake, which is converted to sugar and then fat, and leads to rebound hunger.⁹
Daily moderate exercise	<ul style="list-style-type: none"> » Set up a habit, then increase (Figure 2). » Try a brisk walk, run, cycle or swim.⁹ » Regular exercise can reduce pulmonary complications by up to 50%.¹⁰ » Build strength to enable good mobility to get home post-op.
Alcohol/drugs	<ul style="list-style-type: none"> » Try alcohol-free days, alternating with soft drinks, and avoid exceeding limits.
Mental health	
Medication review	<ul style="list-style-type: none"> » Increasing evidence of benefit.
Psychological preparedness	

Poorer health status that might lead to more complications should not only be documented but also acted on

of anaemia. Effort is needed to include other factors, to be less passive and less reliant on pharmaceuticals. Poorer health status that might lead to more complications should not only be documented but also acted on. For a patient, going on a waiting list or contemplating surgery is a ‘teachable moment’⁶ that should be grasped with simple pointers as well as sympathy. There are a finite number of interventions that can significantly reduce complications. Attention to seven lifestyle factors has the most impact: smoking, nutrition, exercise, alcohol/drugs, mental health, medication review and psychological preparedness. Social deprivation and low health literacy are associated with the least ability to change. The case for intervention should be raised above the cacophony of other demands

with facts, skills, tips and support. Table 1 lists some simple concepts.

Patients and their families can be empowered to take an active role in the reduction of complications. It is possible to change several behaviours at once, especially if forming new habits. The medical degree and Membership of the Royal College of Surgeons examination both include physiology and psychology. For example, it takes 20 minutes to feel full; carbohydrates are metabolised to sugar and then fat, and a post-insulin dip causes hunger.⁹ Surgeons should take an active role in providing lifestyle advice that is proven to improve outcomes. Many surgeons rightly believe that other professionals do this better but surgeons need to articulate the concepts to show they value them.

Figure 1 Fruit, vegetables and protein aid wound healing



SUSTAINABILITY THROUGH REDUCTION IN OPERATIONS PERFORMED

Surgery is particularly resource intensive. Research incorporating patient reported outcome measures highlights differences in expectations. The key is around assessing risk, expectations and alternatives. Surgeons have already adjusted their consultation style and consenting practice following the Montgomery ruling, meaning that risks and benefits are individualised to each patient's aspirations. The COVID-19 pandemic has necessitated difficult consultations around risk.

Clinicians often feel they already practise shared decision making.¹¹ In reality, there is such a wide range of consulting styles that all healthcare professionals would benefit from reflection or education. The BRAN format from the Choosing Wisely initiative can be helpful (ie asking patients to come with their views on Benefits, Risks, Alternatives and doing Nothing).¹²

Pathways of care and patient information resources are helpful. They empower every healthcare worker to give simple clear messages and help ensure a common understanding with patients. Although

they seem to generalise care, they promote identification of facets that need to be individualised. The pathway should be adjusted to include risk stratification early enough for the patient's health status to be optimised or so that discussion with a senior decision maker is possible.

At this time of heightened risks, a surgical consultation is not a binary decision of operation or nothing. The lifestyle options that reduce complications are often the same as those that improve health (Table 1).⁷ As with other professions, the consultation should include short-term details and long-term consequences. Health coaching and shared decision making are also surgical skills. Wider discussion helps the whole team use this approach.

The aim of most operations is to improve health and wellbeing, and this usually justifies the resources used. Some, however, have a lesser balance of benefits over risks and costs.

SUMMARY

The biggest potential impact on sustainability in surgery is from the 'reduce'

Figure 2 Scarlett McNally preparing for stem cell transplant using an exercise bike



part of the reduce, reuse, recycle triad. Surgical teams can have a powerful impact on reducing complications and numbers of operations performed. Surgeons need to understand, own and verbalise the key factors, to lead teams well. All healthcare professionals and surgical pathways should pay attention to the small number of interventions with clear evidence demonstrating reduction in risk (Table 1), individualised to the patient. Perioperative care provides an opportunity to educate patients on how to optimise their condition and reduce their chances of getting a complication, acting as a key 'teachable moment'.¹³ Shared decision making requires understanding of patient expectations and risk, and can reduce the number of operations performed.

References

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