National Institute for Health and Care Excellence: Perioperative care in adults

Key area for quality improvement 1:

Maximising the duration of 'Enhanced recovery programmes'. Where possible, patients should be offered prehabilitation from the point of diagnosis.

It is important that the prehabilitation or preoperative element of 'Enhanced recovery programmes' are long enough for clinically significant improvement and where possible are offered from the point of diagnosis.

For example, evidence for people with cancer demonstrates that a three-week intensive prehabilitation programme can reduce the risk of surgical complications. Shorter interventions lasting around two weeks also improve functional capacity, although further research is needed to confirm their clinical impact.

Active Together provides exercise, nutrition and wellbeing support for people before during and after cancer treatment. Active Together in Sheffield has been associated with an overall 10% improvement in survival for people with bowel, lung and upper gastrointestinal cancers. Active Together participants entered treatment stronger and fitter. This meant they had a better chance of tolerating surgery, spent less time in hospital, had reduced side effects of treatment and recovered more quickly, reducing the physical and emotional toll of cancer treatment.

These positive impacts can be strengthened by ensuring that where possible people are provided with prehabilitation from the point of diagnosis.

Data Sources:

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Relevant section of NICE guidelines:

‘Enhanced recovery programmes 1.2.1 Offer an enhanced recovery programme to people having elective major or complex surgery.

1.2.2 Use an enhanced recovery programme that includes preoperative, intraoperative and postoperative components.’

Key area for quality improvement 2:

All people who smoke should be automatically enrolled into smoking cessation services whilst awaiting surgery.

Research consistently highlights the wide-ranging risks associated with perioperative smoking. For example, one study finds an increased relative risk of 20% for postoperative mortality for those who currently smoked and a 40% increased relative risk of major postoperative complications. Smoking before surgery can also increase hospital stays, readmission and admission into intensive care.

Evidence from various healthcare settings indicates that smoking cessation support should be 'opt-out' rather than 'opt-in'. We recommend that all people who smoke are automatically enrolled into smoking cessation services before surgery. Evidence suggests that this is likely to be more effective than simply 'discussing lifestyle modifications' with people who smoke.

For example, the Yorkshire Enhanced Stop Smoking study (YESS) provided opt-out, co-located smoking cessation support to people who smoke as part of their lung screening appointments. 15.0% of all eligible people self-reported quitting after four weeks. This is a higher quit rate than is seen in lung screening units that do not provide such intensive intervention. For example, the UK Lung Screening Trial provided standard smoking cessation advice leaflets and signposted participants to existing services rather automatically enrolling people into an on-site service. This trial had a 9.9% self-reported quit rate, compared to the 15.0% quit rate of the YESS study at a comparable point.

The automatic enrolment or 'opt-out' nature of the support helps smoking cessation services to capture those who may otherwise pass up the opportunity to quit by presenting smoking cessation and the lung health checks as a comprehensive package rather than an optional add on. This approach has also been seen to be effective in maternity and hospital in-patient settings.

Surgical pathways should introduce a screening process for smoking status and automatically enrol people who smoke into smoking cessation support before surgery. Uptake and quit rates should be monitored and, where possible, smoking cessation support should be provided sufficiently ahead of surgery to increase likelihood of quitting. The standard best practice is 12 weeks of combined behavioural support and pharmacotherapy.

Data Sources:

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Relevant section of NICE guidelines:

‘1.3.2. Discuss lifestyle modifications with people having surgery, for example stopping smoking and reducing alcohol consumption. Follow the relevant NICE guidance on lifestyle and wellbeing.’