

The 'Fit for List' health screen

The 'Fit for List' health screen should include assessment of the following:

1. Haemoglobin (HB)
2. Body Mass Index (BMI)
3. Blood Pressure (BP)
4. HbA1c
5. Renal function
6. Current lifestyle (including smoking status)
7. Current levels of physical fitness.
8. Nutritional Status
9. Dental Assessment

Depending on resources available the GP / Primary care team should instigate supporting the patient prepare for surgery. This may include providing patients with appropriate diet and exercise advice while the patient is waiting for their First Specialist Assessment (FSA), and if appropriate, referring the patient to primary care health improvement programmes such as smoking cessation, weight reduction and exercise programmes. This is important as identifying and treating / optimising a patient's condition may take several weeks or longer.

Checking for signs and symptoms of anaemia with confirmation by blood test will allow the correction of haematological status prior to surgery. It is proposed that interventions are instigated by GPs to start the process of optimising the patient's condition prior to surgery.

This 'optimisation' continues in secondary care and therefore needs to be in partnership with the anaesthetist and surgeon. It is recommended that GPs receive timely communication following pre-operative assessment in secondary care to inform them of the patient's progress and proposed surgical intervention. This will ensure that GPs are integral to the decision making process as patients often wish to discuss the proposed surgery with their GP.

Anaemia

Patients need to have their comorbidities assessed, treated and optimised. Anaemia is a common condition in surgical patients and is independently associated with increased mortality. Anaemia is associated with increased requirement for transfusions, and increased length of stay. Treatment of pre-operative anaemia should be the focus of investigations for the reduction of peri-operative risk. It is now recognised that correcting even minor degrees of anaemia significantly reduces the need for transfusion and the resultant increase in morbidity and mortality following major surgery. The thresholds are:

- Females = Hb <12g/l
- Males = Hb <13g/l

It is essential that the clinical team (primary and secondary care) are aware of these thresholds and treat patients accordingly.

Hypertension

Pre-existing hypertension is common in patients undergoing surgery; approximately 30% of adults in New Zealand have hypertension. In a case-control study of 76 patients who died of a cardiovascular cause within 30 days of elective surgery, a pre-operative history of hypertension was four times more likely than among 76 matched controls.

Pre-existing co-morbidities (HbA1c, BP, BMI)

Patients who have diabetes are a high-risk group for surgery with the likelihood of increased late cancellation at pre-operative assessment or upon admission as well as increased length of stay, morbidity, mortality, use of HDU/ITU, and re-admissions. Reducing these risks by improving control of diabetes, and blood pressure and cholesterol is known to improve outcomes and help to ensure patients with diabetes can benefit from enhanced recovery pathways.

Healthy living advice

Healthy Living advice including smoking cessation is vital to support the patient in recovery post-operatively. Patients who smoke are more likely to:

- Have pulmonary, circulatory and infectious complications
- Experience reduced bone fusion and impaired wound healing
- Be re-admitted to an ICU
- Face increased risk of in-hospital mortality

Patients should be encouraged to stop smoking. Due to the increased risks caused by smoking, smokers are more likely to stay in hospital longer. It is recommended that patients cease smoking at least eight weeks prior to surgical intervention for the risk of complications to return to similar levels of non-smokers. Screening patients about their alcohol consumption could provide sufficient time till surgery for successful intervention. The role of the referring General Practitioner in providing advice and support is also recommended

Improving fitness

Patients should be encouraged to maintain, or where appropriate increase their physical activity. Increased physical activity can bring many important benefits to patients undergoing orthopaedic surgery. Exercise can improve strength, balance and flexibility. It can also lower the risk of heart disease and stroke, reduce blood pressure and obesity levels.

Nutritional Status

Patients should be encouraged to maintain or where appropriate, adopt a healthy diet. Promoting nutritional screening in primary care allows patients who are either malnourished or at risk of malnutrition to be started on the appropriate nutritional intervention before being referred into secondary care. This may allow adequate time for promotion of nutritional status and wellbeing before the patient undergoes surgery.

Patients with a BMI in the overweight or obese category should be referred for the appropriate dietary advice and fitness intervention alongside referral to secondary care for surgical assessment. Evidence suggests that patients have a more complicated operative recovery compared to patients with a BMI in the normal weight range.

Dental Care

Patients should be encouraged to visit their dentist to ensure their teeth and gums are as healthy as possible.

This is to reduce the risk of infection during surgery. Infected gums or teeth can allow bacteria to be introduced into the bloodstream, which could cause complications or infections such as endocarditis.

Education and Decision Support

Provision of patient-focused information about the operation and setting expectations about the patient's role in their own recovery should commence in primary care. This will require good communication between the hospital and the referrer and sharing of communication resources so that up-to-date, accurate information can be given to the patient about the pathway.

Primary Care References

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UKPDS UK prospective diabetes study, DCCT (Diabetes Control and Complications Trial)

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