NHS
Wirral Clinical Commissioning Group

Pre-operative Optimisation

Policy and Procedure

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	1	To outline the policy for pre-operative optimisation.	2018

Pre-operative Optimisation

Policy and Procedure

1. INTRODUCTION

1.1 NHS Wirral Clinical Commissioning group's (CCG) vision is to ensure the residents of Wirral enjoy the best quality of life possible, being supported to make informed choices about their own care, and being assured of the highest quality services. To achieve this, the CCG must enable, encourage and support the people it serves to live the healthiest lives possible.

1.2 This policy will outline the approach which will be followed by the CCG and partners for Pre-operative Optimisation.

1.3 Pre-operative Optimisation refers to a principle that patients will be advised to optimise their health prior to non-urgent, elective surgery, by reference to smoking, consideration of weight loss and management of existing medical conditions.

1.4 Support services will be offered to patients to encourage and support patients to meet the objectives required (see section 4).

2. BACKGROUND

2.1 CCG's in England have been provided with a number of expectations in the NHS Five Year Forward View. Amongst these priorities are actions on smoking, obesity and management of long term conditions, which the CCG recognise as playing an important role in individual's health and wellbeing. The point of referral for non-urgent elective surgery provides an opportunity for optimisation[1].

3. EVIDENCE BASE

Smoking

3.1 Tobacco smoking remains the single greatest cause of preventable illness and premature death in England. It is also the largest single cause of inequalities in health and accounts for about half of the difference in life expectancy between the lowest and highest income groups. In Wirral, smoking accounts for 1 in 5 deaths per year (658 deaths a year)[2].

3.2 The recent 'Joint Briefing: Smoking and Surgery' (April 16) document produced by ASH and 5 Royal Colleges as well as the Faculty of Public Health, provides a powerful summary of the significant risks associated with smoking and surgery and the benefits of achieving smoking cessation pre-operatively.

3.3 There is strong evidence of higher risks and worse surgical outcomes when a patient continues to smoke. Smokers are 38% more likely to die after surgery than non-smokers.[3] Following surgery smokers:

- have a higher risk of lung and heart complications
- have higher risk of post-operative infection
- have impaired wound healing
- are more likely to be admitted to an intensive care unit
- have an increased risk of dying in hospital
- are at higher risk of readmission
- remain in hospital longer

[1] https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf

[2] Local Tobacco Control Profiles for England (2015) *http://www.tobaccoprofiles.info/tobacco-control#page/0/gid/1938132885/pat/6/par/E12000002/ati/102/are/E08000015*

[3] Joint briefing: Smoking and surgery - Action on Smoking and Health (2016) http://ash.org.uk/information-and-resources/briefings/briefing-smoking-and-surgery/

3.4 There is evidence to suggest that stopping smoking before having surgery:

- reduces the risk of post-operative complications
- reduces lung, heart and wound-related complications
- decreases wound healing time
- reduces bone fusion time after fracture repair
- reduces length of stay in hospital

Weight/Obesity

3.5 Public Health England report that the prevalence of obesity among adults has increased sharply during the 1990s and early 2000s. The proportion who were categorised as obese (BMI 30kg/m2 or over) increased from 13.2% of men in 1993 to 24.3% in 2014 and from 16.4% of women in 1993 to 26.8% in 2014 (HSE). By 2050 obesity is predicted to affect 60% of adult men and 50% of adult women.

3.6 Wirral's Joint Strategic Needs Assessment (JSNA) estimates 60,000 – 68,000 people in Wirral are obese, representing up to 20% of our population. More than half of the population is estimated to be overweight or obese.[4]

3.7 Obesity poses risks for surgery with increased risk of deep vein thrombosis; more difficult intubation for general anaesthesia; lower oxygen levels during surgery; more difficult cannulation or regional local anaesthetic injection; increased risks of wound infection; and longer recovery from general anaesthesia[5].

Hypertension

3.8 There is evidence that hypertension can increase a patients risk during anaesthesia and in the perioperative period.

3.9 Hypertensive patients are at increased risk of cardiovascular morbidity and mortality postoperatively, particularly in patients with severe uncontrolled hypertension. Optimisation of such patients with investigation and drug treatment can improve long term outcomes and prevent such complications. Patients who have hypertension require a higher blood pressure for adequate organ perfusion than normotensive patients – this is particularly in the elderly.[6]

HbA1c levels

3.10 Studies have shown that high pre-operative and perioperative glucose and glycated haemoglobin (HbA1c) levels are associated with poor surgical outcomes. These findings have been seen in elective or emergency surgery. One study showed that the adverse outcomes include a greater than 50% increase in mortality, a 2.4-fold increase in the incidence of postoperative respiratory infections, a doubling of surgical site infections, a 3-fold increase in postoperative urinary tract infections, a doubling in the incidence of myocardial infarction, and an almost 2-fold increase in acute kidney injury.[7]

4. COMMISSIONING STATEMENT

4.1 All non-urgent, routine referrals for surgery for patients who meet the criteria below are to be supported through optimisation. This may include referral to

[4] Wirral JSNA: Obesity http://info.wirral.nhs.uk/ourjsna/adult_obesity.html

[5] Obesity – a risk factor for postoperative complications in general surgery? Elke E.K.M. Tjeertes, Sanne S.E. Hoeks, Sabine S.B.J.C. Beks, Tabita T.M. Valentijn, Anton A.G.M. Hoofwijk and, Robert Jan R.J. Stolker

[6] Hypertension in Anaesthesia http://www.frca.co.uk/documents/hypertensioninanaesthesia.pdf

[7] Perioperative management of the surgical patient with diabetes Association of Anaesthetists of Great Britain and Ireland & the Joint British Diabetes Societies Inpatient Care Group https://www.aagbi.org/sites/default/files/Diabetes%20guideline%2020150429.pdf

lifestyle services, self-help advice and/or support within primary care to stabilise existing medical conditions.

4.2 The following patient cohorts will be identified for optimisation:

- Smokers
- Patients with a BMI of over 30
- Patients with long term conditions that require stabilising prior to surgery; including the following:

Parameter	IDEAL	ACTION to be taken if not IDEAL
Blood Pressure	<160/100 mmHg	Recheck if elevated. May need 24hr blood pressure monitoring. It is helpful to include the last few blood pressure recordings in the referral letter if they are normal. If remains elevated please commence appropriate antihypertensive therapy. Ideally, this should be in place for at least 6 weeks before planned surgery to allow resetting of cerebral auto regulation. If patient is on more than three antihypertensive agents please consider checking for secondary causes of hypertension such as phaochromocytoma. Although, incredibly rare, we have had one fatality from this recently.
Pulse	Between 45 and 100 and regular in rhythm	If not between 45 – 100 or irregular in rhythm please perform ECG. If patient is known to be in atrial fibrillation and rate is between 45-100 then no ECG is required. Patients that are referred back are those with new onset atrial fibrillation or have a degree of heart block.
HbA1c (diabetics only)	Less than 69 mmol/L	Review/refer for improved diabetic control. Particularly important if being considered for joint replacement
Haemoglobin	Hb >120g/L	If anaemic please investigate/treat before referral if non-urgent referral. This is to avoid blood transfusion.
Functional status	Good exercise tolerance before becoming breathless.	If patient is unable to walk more than 100 yards please assess cause and consider if referral appropriate or if this can be optimised. If urgent e.g. suspected cancer then continue with referral.

4.3 This policy is applicable to the following specialties:

- Colorectal
- ENT/ Head and Neck
- General Surgery
- Gynaecology
- Hepatobiliary & Pancreatic Surgery
- Plastic Surgery
- Orthopaedics (including musculoskeletal)
- Upper GI
- Urology
- Vascular surgery

4.4 The following exclusion criteria will apply:

- any urgent or non-routine procedures
- patients undergoing surgery for cancer
- patients referred under two week wait guidance for suspected cancer
- patients with severe mental health illness or significant cognitive impairment
- children under age of 18 years

4.5 Patients excluded from the policy may still be offered referral to weight management and/or smoking cessation if appropriate.

4.6 Patients who use electronic cigarettes will be classified as ‘non-smokers’ for the purpose of this policy.

4.7 A leaflet will be shared with patients to advise of pre-operative optimisation in relation to smoking and weight management and associated post-surgical risks if no action is taken.

4.8 Patients who do not wish to comply with the pathway will still will be actively encouraged to take action however the pathway is not mandated. Informed dissent should be recorded within the referral proforma. Secondary care clinicians will then assess whether the patient is fit for surgery.

5. PROCESS AND PATHWAY

Primary Care

5.1 If a GP/primary care clinician refers a patient to a surgical specialty for a non-urgent procedure, the GP will complete an EMIS optimisation referral proforma which identifies whether the patient requires optimisation for smoking, weight management or to stabilise existing medical conditions.

5.2 If it is identified that the patient would benefit from optimisation; they will be offered support via either referral to a stop smoking service, a weight management service or primary care support to improve medical fitness.

5.3 Any such referrals will be done alongside the referral to secondary care to ensure the patient's surgery is not delayed as a result of the optimisation pathway. The optimisation proforma will be attached to the e-referral.

5.4 Patients will be given a printed leaflet to explain the benefits of optimisation.

5.5 If a patient meets the optimisation criteria due to an existing medical condition such as diabetes or hypertension, the GP should review the patients' management plan to reach the objectives required prior to surgery. It will be up to the GPs clinical discretion to decide whether to postpone the referral until the patient is in a position where they would be fit for surgery.

Secondary Care

5.6 Secondary care clinicians will receive the referral proforma and utilise this information as part of their assessment.

5.7 Pre-operative assessment will include a re-assessment of baseline position to assess fitness for surgery and support pathway evaluation.

5.8 Post-surgical outcomes and qualitative feedback will also be undertaken to further support evaluation.

6. REFERRAL GUIDANCE

6.1 Please see Pre-Operative Optimisation Pathway for further detail. Link to be inserted.

Pre Op pathway - 01.06.17.docx

6.2 The following EMIS Referral Proforma must be completed and attached to your secondary care e-referral. Link to be inserted.

6.3 Referrals to stop smoking service can be made via e-referral utilising the EMIS referral form. Link to be inserted.

6.4 A printable voucher for Tier 2 Weight Management services can be obtained via EMIS referral form Link to be inserted.

6.5 Referrals to Tier 3 Weight Management services can be made via e-referral. Link to be inserted.