NHS
Liverpool Women's
NHS Foundation Trust

MANAGEMENT OF THE MORBILDLY OBESE PATIENT IN THE PERIOPERATIVE PERIOD

THIS IS A CONTROLLED DOCUMENT
The only Valid Version is stored in the Policies, Procedures and Guidelines Intranet Site

Version	2.0
Grade of Change	New Guideline
Summary of Changes	

Document Type	Clinical Guideline
Coverage	Theatres & Anaesthetics

Designation of Guideline Sponsor	Consultant Anaesthetist
Responsible Committee	Anaesthetic Clinical Meeting

Date ratified	07/05/2025
Date issued	07/05/2025
Review date	May 2028

Contents

1. Clinical Content 3
2. Auditable Standards 6
3. Consultation and Ratification Process 6
4. Intranet Classification 6
5. Version Control Sheet 6
6. Monitoring Compliance with the Guideline 8

1. Clinical Content

INTRODUCTION

This guideline relates to the care of patients throughout the trust with:

- BMI >40KG.m^2 OR
- BMI >35kg.m^2 with obesity related comorbidity (e.g., metabolic syndrome, sleep disordered breathing, diabetes)

WHY REQUIRED

The prevalence of obesity is increasing significantly throughout the developed world and although the majority of these patients have an uncomplicated perioperative journey and inpatient stay, those with a BMI >35kg.m^2 require particular consideration, equipment, and handling, and as such it is important to identify these patients early.

Obesity related comorbidities can increase risk particularly in the perioperative period.

GENERAL CONSIDERATIONS FOR ALL STAFF

All staff involved in the care of these patients should be up to date with mandatory moving and handling training in order to minimise the risk to both patients and staff. Mandatory training records should reflect this.

Obesity in itself does not exclude the patient from day case surgery. Patients with a BMI up to 40kg.m^2 may be suitable for day case surgery in appropriate expert hands and in the correct location with appropriate resources. A patient could be considered for day case surgery if their management would not be changed as an inpatient, and they have no discernible increased risk by being managed as a day case.

PRE-OPERATIVE

Pre-operative assessment should occur in a timely fashion and in particular should focus on:

- Height, weight, and BMI should be recorded accurately
- Specific questioning to identify patients with undiagnosed sleep apnoea, with appropriate referral for further investigation if necessary. If the surgery is not urgent, it should be postponed until investigations complete, and treatment initiated.
- Respiratory, cardiac, and metabolic complications of obesity
- Pre-operative counselling or referral to appropriate services e.g., smoking cessation, dietary advice
- VTE risk and appropriate thromboprophylaxis

- Risk assessment using appropriate risk stratification tools. Levels of risk should be communicated with the patient and any appropriate family members as part of the pre-operative planning and consent
- Airway assessment including any known previous difficulties and any history suggestive of OSAS (STOP-BANG tool can be employed as part of the assessment process and should be used in all patients with a BMI >35)
- Pre-op assessment should also include checking for any evidence of dyspnoea or a gastric band in situ
- The consultant anaesthetist who will manage the patient in theatre should be informed of the patient in advance to allow care to be planned appropriately, a second anaesthetist may be advisable
- If BMI is >40kg/m^2 and the patient has other co-morbidities the patient should be reviewed by a consultant anaesthetist pre-operatively / antenatally.
- If the BMI is >45kg/m^2 and the patient has no other medical history then they should be reviewed by a consultant anaesthetist pre-operatively / antenatally.

The Theatre Operational Group (TOG) must be informed of morbidly obese patients to ensure extra equipment (special bed/hoist) is available and extra time is allowed for anaesthesia and surgery. Morbidly obese patients should ideally have both their weight and BMI displayed on the operating list. If weight is >160kg then this information must be displayed on the operating list to allow suitable beds / trolleys available.

Patients may also present as emergencies and these patients should have an accurate weight, height and BMI recorded and discussed as part of the theatre huddle for emergency cases.

If previous anaesthetic records are available these should be checked with particular reference to ease of IV access and airway management.

EQUIPMENT

Specialist equipment that should be immediately available in theatre if required includes:

- Difficult airway trolley
- Ultrasound machine
- Oxford pillow
- Side supports
- Table extenders
- Body straps / leg straps
- Lifting aids
- Hover mattress
- Extra pillows
- Gel pads
- Extra-large BP cuff
- Extra-long spinal / Touhy needles

INTRAOPERATIVE AND ANAESTHETIC MANAGEMENT

General considerations include patient positioning, seniority of team present (surgical, anaesthetic, scrub, and team leader), staffing numbers. Enough staff should be present to ensure safe moving and handling of the patient. The staff present should also have the required skills for emergency equipment such as the difficult airway kit.

Extra time should be allocated to the anaesthetic time in cases of patients with a BMI >50 or where requested by an anaesthetist in those patients with a BMI <50, as these patients often require more time for safe anaesthetic care.

Consider neuromuscular and depth of anaesthesia monitoring from the outset.

Pre-oxygenation should be undertaken in the ramped position where appropriate. Consider induction on the operating table to minimise the moving and handling requirements once the patient is asleep. Remember that airway management may be difficult and as such wherever possible 2 anaesthetists should be present on induction. Consideration should be given to the use of regional or neuraxial anaesthesia over general anaesthesia where appropriate. Remember however that regional and neuraxial anaesthesia, whilst avoiding the potential problems of general anaesthesia, may in themselves be difficult and may fail. Any regional technique should be carried out by an experienced anaesthetist. Consideration should be given to the use of ultrasound for neuraxial techniques in this group of patients.

All pressure points should be thoroughly protected and checked prior to the drapes being applied. If a particular position is required for a prolonged period e.g., steep head down, then consideration should be given to allowing a short break in the positioning at an agreed time point during the case, and at this point the pressure points should be rechecked.

POSTOPERATIVE

In recovery patients should be sat up wherever appropriate and usual discharge criteria should be met before transfer to the ward.

Oxygen saturations should be maintained at preoperative levels with minimal oxygen therapy and no evidence of hypoventilation.

Patients may require escalation to higher dependency care due to comorbidities or hypoventilation.

Thromboprophylaxis may be required for prolonged periods.

Multimodal analgesia with avoidance of long-acting opioids will reduce risk of hypoventilation.

In patients with a known or suspected diagnosis of OSAS or obesity hypoventilation syndrome, opioid or sedating drugs should be used with caution. If the patient used CPAP pre-operatively this should be reinstated in the postoperative period. Patients should only be discharged to the ward from recovery if they do not have apnoea's (do not discharge if stimulation required to avoid apnoea's). If at risk of apnoea's / hypoventilation, consider continuous monitoring of oxygen saturations in a high dependency environment post op.

OBSTRUCTIVE SLEEP APNOEA SYNDROME AND OBESITY HYPOVENTILATION SYNDROME

Obstructive sleep apnoea syndrome (OSAS) presents specific problems for the anaesthetist and the postoperative period. Patients with OSAS or obesity hypoventilation syndrome may require post-op care in a level 2 or 3 environment, although surgical complexity also needs to be considered. Any admission should usually be planned in advance to ensure bed availability.

Patients with known or suspected OSAS / OHS should be seen face to face at pre-op. All vital signs including oxygen saturations, height, weight, BMI and Mallampati should be recorded at the pre-op visit. A full medical history should be taken with particular attention to any current or past diagnosis, or any current or pending investigations for either OSAS or OHS. Patients with a BMI >35 in particular should be asked about symptoms of daytime somnolence, night-time waking and secondary recognition of apnoea.

2. Auditable Standards

3. Consultation and Ratification Process

This guideline has undergone consultation and ratification within the anaesthetic department business meeting.

4. Intranet Classification

Tags (separated by ;)	Obesity; perioperative

5. Version Control Sheet

Version	Date	Author	Status	Comment
1.0	Feb 22	Consultant Anaesthetist	Current	New
2.0	May 25	Consultant Anaesthetist	Current	Minor Changes Only

6. Monitoring Compliance with the Guideline

Audit outcomes	Target	How will the audit outcomes be Monitored?	Responsible committee for monitoring audit outcomes and action plans	Frequency of guideline monitoring	Frequency of action plan monitoring	Lead