

### Pre-operative Evaluation

#### Red Flags

- Poor functional capacity
- Abnormal ECG
- Uncontrolled BP, CCF or IHD
- SpO<sub>2</sub> <94% on air
- If bicarbonate >27, OHS likely
- Previous DVT/PE
- STOP-BANG ≥ 5
- OS-MRS >3
- Metabolic Syndrome

Yes



Consider:

- Preoperative CPAP
- Blood Gases / Sleep Studies
- Echocardiogram
- Cardiorespiratory referral
- Experienced Anaesthetist
- Book HDU Bed

No



- May be suitable for day-case surgery



OS-MRS Calculator

[tools.farmacologiaclinica.info](https://tools.farmacologiaclinica.info)



SOBA App

<https://apps.apple.com/gb/app/soba-uk-app/id1549542383>



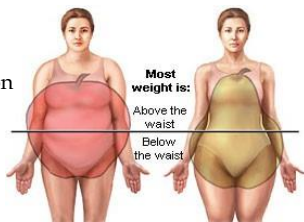
STOPBANG Calculator

[www.stopbang.ca](http://www.stopbang.ca)

#### Central Obesity

(waist > half height)

- Difficult airway/ventilation more likely
- Greater risk of CVS disease/thrombosis
- Higher risk of metabolic syndrome



#### Peripheral Obesity

(Fat outside body cavity)

- Less co-morbidity
- Lower risk

### Intra-operative Management

#### Airway Equipment:

- Device or equipment for ramping
- Step for anaesthetist
- Difficult airway equipment
- Videolaryngoscope

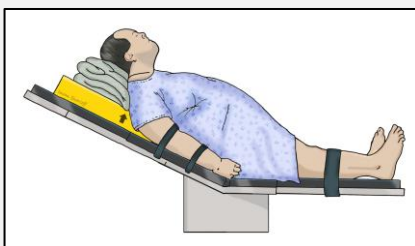
#### Theatre Equipment:

- Suitable bed/trolley and operating table
- Gel padding
- Wide strapping and foot plates
- Table extensions/arm boards
- Hover mattress or equivalent
- Appropriately sized calf compression devices
- Sufficient staff to move patient

#### Other Anaesthesia Equipment:

- Ventilator capable of PEEP & pressure modes
- Long spinal, regional and vascular needles
- Ultrasound machine
- Forearm cuff or large BP cuff
- Depth of anaesthesia monitoring (EEG/BIS)
- Neuromuscular monitoring

#### Ramping



- Tragus level with sternum
- Reduces risk of difficult laryngoscopy
- Improves ventilation and pre-oxygenation

#### Induction:

- Self-position on operating table
- Consider premed antacid & analgesia
- Consider CPAP and/or HFNO
- Preoxygenate and intubate in ramped/sitting position
- Tracheal intubation recommended
- Caution with SAD in BMI >40
- Minimal induction to ventilation time

#### Intra-Op:

- DVT prophylaxis
- Commence maintenance promptly
- Increased risk of visceral injury when prone
- Avoid spontaneous ventilation, use PEEP
- Use short-acting inhalationals or TIVA
- Short-acting opioids & multimodal analgesia
- Think pressure areas

#### Extubation:

- Ensure full NMB reversal
- Extubate and recover sitting up

**Lean Body Weight:** This exceeds ideal body weight in patients with obesity and plateaus at:

- ≈100kg for a man
- ≈70kg for a woman

**Ideal Body Weight:** Broca formula

- Men: height (in cm) - 100
- Women: height (in cm) - 105

**Adjusted Body Weight:** Ideal plus 40% extra

**\*\*If in doubt, titrate and monitor effect\*\***

#### Suggested dosing for anaesthetic drugs

##### Lean Body Weight

- Propofol induction
- Thiopentone
- Fentanyl and Alfentanil
- Morphine
- Non-depolarising NMDBs
- Paracetamol
- Local Anaesthetics

##### Adjusted Body Weight

- Propofol Infusion
- Neostigmine (max 5mg)
- Sugammadex (read pack insert)
- Antibiotics

##### Total Body Weight

- Suxamethonium
- LMWHs (titrate dose with Xa levels)

### Post-operative Care

#### PACU discharge:

- Usual discharge criteria should be met
- SpO<sub>2</sub> should be maintained at pre-op levels with minimal O<sub>2</sub> therapy
- No evidence of hypoventilation

#### General good ward level practice includes:

- Multimodal analgesia
- Caution with long-acting opioids and sedatives
- Early mobilisation
- Robust thromboprophylaxis regime
- Experienced Consultant Review

#### OSAS or Obesity Hypoventilation Syndrome:

- Sit up and avoid sedatives and post-op opioids
- Reinstate patient's own CPAP if applicable with additional time in recovery until free of apnoeas without stimulation
- Patients untreated, intolerant of CPAP or ineffectively treated (persistent symptoms) are at risk of hypoventilation
- IV opioids should be avoided but, if necessary, patient should have continuous SpO<sub>2</sub> monitoring, and level 2 care must be considered