Pre-operative Evaluation

- 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

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

OS-MRS Calculator
www.stopbang.ca

Anaesthetic Technique:
- Consider premed antacid & analgesia
- Careful glucose control
- DVT prophylaxis
- Self-position on operating table
- Preoxygenate and intubate in ramped/sitting position
- Consider CPAP and HFNO
- Minimal induction to ventilation time
- Commence maintenance promptly
- Tracheal intubation recommended
- Caution with SAD in BMI >40
- Avoid spontaneous ventilation, use PEEP
- Use short-acting inhalations or TIVA
- Short-acting opioids & multimodal analgesia
- PONV prophylaxis
- Ensure full NMB reversal
- Extubate and recover sitting up

Suggested Equipment:
- Suitable bed/trolley and operating table
- Gel padding
- Wide strapping
- Table extensions/arm boards
- Forearm cuff or large BP cuff
- Device or equipment for ramping
- Step for anaesthetist
- Difficult airway equipment
- Videolaryngoscope
- Ventilator capable of PEEP & pressure modes
- Hover mattress or equivalent
- Long spinal, regional and vascular needles
- Ultrasound machine
- Appropriate sized calf compression devices
- Depth of anaesthesia monitoring
- Neuromuscular monitoring
- Sufficient staff to move patient

Suggested dosing for anaesthetic drugs

<table>
<thead>
<tr>
<th>Lean Body Weight</th>
<th>Adjusted Body Weight</th>
<th>Total Body Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Males Max 100Kg Females Max 70Kg)</td>
<td>(Ideal plus 40% excess)</td>
<td>Suxamethonium LMWHs (titrate dose with Xa levels)</td>
</tr>
<tr>
<td><strong>Propofol induction</strong></td>
<td><strong>Propofol Infusion</strong></td>
<td><strong>Thiopentone</strong></td>
</tr>
<tr>
<td><strong>Fentanyl and Alfentanil</strong></td>
<td><strong>Neostigmine</strong></td>
<td><strong>Morphine</strong></td>
</tr>
<tr>
<td><strong>Non-depolarising NMDBs</strong></td>
<td><strong>Sugammadex (read pack insert)</strong></td>
<td><strong>Paracetamol</strong></td>
</tr>
<tr>
<td><strong>Local Anaesthetics</strong></td>
<td><strong>Antibiotics</strong></td>
<td><strong>If in doubt, titrate and monitor effect</strong></td>
</tr>
</tbody>
</table>

Lean Body Weight: This exceeds ideal body weight in the obese 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

Post-operative Care

PACU discharge:
- Usual discharge criteria should be met
- SpO2 should be maintained at pre-op levels with minimal O2 therapy
- No evidence of hypoventilation

OSA 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
- In these cases, IV opioids should be avoided but where necessary, patient should have continuous SpO2 monitoring and level 2 care must be considered

Intra-operative Management

Ramping

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

**Red Flags**
- Poor functional capacity
- Abnormal ECG
- Uncontrolled BP, CCF or IHD
- SpO2 <94% on air
- If bicarbonate >27, OHS likely
- Previous DVT/PE
- STOP-BANG ≥5
- OS-MRS >3
- Metabolic Syndrome
- High NSQIP ACS Risk

NSQIP ACS Risk Calculator
www.stopbang.ca

Lean Body Weight:

Ideal Body Weight:

Adjusted Body Weight:

General good ward level practice includes:
- Multimodal analgesia
- Caution with long-acting opioids and sedatives
- Early mobilisation
- Robust thromboprophylaxis regime
- Experienced Consultant Review

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