| SPECIAL CONSIDERATIONS FOR BARIATIC PATIENTS | | |
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| PHASE OF CARE | ISSUE | SOLUTION |
| PREHOSPITAL | • Prolonged extrication<br>• Difficult transfers<br>• Need for specialised equipment<br>• May not be able to be transported by usual means (eg: helicopter weight limitations) | • Early utilisation of other assets eg: fire for extrication assistance<br>• Early request for the bariatric ambulance if available |
| TRAUMA RECEPTION | • Need for special equipment eg: bariatric beds, hoists<br>• Risk of injury to staff with patient movement and handling | • Early prehospital notification of a bariatric patient arrival<br>• Prepare necessary equipment - bariatric bed<br>• encourage bariatric calls<br>• Extra staff available for moving the patient<br>• Special training/care with ergonomics of patient handling |
| AIRWAY AND BREATHING | • Predictable difficult airway<br>• Increased adipose tissue around neck and face causing compression, increased airway resistance<br>• Diaphragm pushed upwards with reduced vital capacity, compliance and lung volumes.<br>• Rapid desaturation | • Difficult airway team call, most experienced intubator, video laryngoscopy, larger blade Mac4, bougie, back up plan -LMA / Cric<br>• Two person BVM with jaw thrust<br>• Keep patient sitting as upright as long as possible possible (if C spine clear) then ramp patient with tragus/sternal notch positioning for intubation<br>• If spinal cares needed: tilt bed head up 30 deg<br>• Preoxygenation, +/- PEEP, high flow apnoeic nasal prong oxygenation during intubation. |
| | • Increased abdominal pressure and decrease lower oesophageal tone, decreased gastrointestinal motility, GORD and aspiration common, increased airways reactivity. | • Head up, consider cricoid pressure. |
| | • Increased metabolic rate, baseline oxygen requirement with elevated RR and minute volume | • Maintain higher respiratory rate, PEEP, tidal volumes as per ideal weight. Consider early NIPPV. |
| | • Morbid obesity 10-10% have obesity hypoventilation syndrome with diminished respiratory drive in response to hypercapnia. | • Monitor ETCO2, especially with oxygen, and opioid use. |
| | • Cricothyroidotomy - difficulty finding landmarks<br>• Thickened chest wall<br>• Breath sounds may be quieter.<br>• Flail chest more difficult to appreciate<br>• Plain radiography more difficult to interpret. | • Mentally prepare - Assess landmarks prior to intubation, vertical incision allows flexibility with dissection.<br>Longer needle for decompression of pneumothorax, 5th ICS ant. Axillary line preferred site. |
| CIRCULATION | • Difficult IV access | • USS guidance, use longer IV lines, CVL, longer IO (can cutdown to place IO in extremis). |
| | • Supine position increases intrathoracic and intra-abdominal pressures. | • May increased blood loss when supine, ensure adequate fluids / blood |
| | • Larger arm results in inaccurate BP readings with standard cuff.<br>• Patient may be hypertensive at baseline | • Large cuff. Consider art line monitoring if unstable.<br>• Normotensive may be hypotensive for patient |
| | • Increased abdominal size/girth. | • Palpation of abdomen unreliable, landmarks distorted. Fast scan views may not be obtainable.<br>• More reliance on CT<br>• May need to transport patient to other facilities with bariatric rated scanners |
| | • Increased baseline metabolic demand with increased blood volume and cardiac output, longterm causing left ventr. Hypertrophy, systolic and diastolic dysfunction and cardiomyopathy | • Ensure adequate fluids / blood but avoid overload. |
| DISABILITY / COMORBDITIES | • Co-existant diabetes common, +/- insulin | • Early treatment of hypoglycaemia<br>• Glove and stocking neuropathy may be normal. |
| | • Hypercapnia may cause decreased GCS | • $ETCO_2$ or blood gas assess |
| EXPOSURE | • Difficult to roll | • Recruit additional staff for log roll<br>• Ensure patient on large bed |
| | • Difficulty with heat loss | • Active warming not usually required |
| | • Psychosocial component, extreme sensitivity to exposure | • Maintain dignity. Keep patient covered whenever possible |
| SECONARY SURVEY | • Limitations with X-rays, poor/no FAST views, may not fit CT weight limits | • Departmental X-rays, know local CT limitations and alternatives. |
| COMPLICATIONS | Pressure ulcers | • Early removal of spinal board, mattress, frequent turns |
| | • Hypercoagulable, increased DVTs/PEs | TEDs, calf compression devices, enoxaparin. |