Monitoring for overfeeding

Overfeeding is harmful in critically ill patients. It is defined as providing >110% of estimated kcal requirement.

Signs of overfeeding:
1. Respiratory and cardiac parameters:
   - Difficulties in respiratory weaning raised/rising pCO2 levels, increasing minute ventilation (Ve) and FiO2
   - New pulmonary oedema
   - New arrhythmias
   May be difficult to determine whether occurrence of these symptoms is due to overfeeding or to COVID-19.

2. Biochemical parameters:
   - Hyperglycaemia
   - Raised/rising LFTs (EN and PN) – may be due to reasons other than overfeeding e.g. sepsis, antibiotic therapy, other medications, acute liver injury
   - Raised triglycerides (EN and PN) – consider propofol rate also
   - Refeeding dyselectrolytaemia

3. Kcal delivery
   - Providing > 110% of kcal requirements
   - Include non-nutritional kcal sources such as propofol, dextrose, citrate

Monitoring for underfeeding

Cumulative underfeeding is harmful to the critically ill. Record % kcal and protein delivery versus goal each review

Signs of underfeeding:
- Wt loss, appearance of wt loss, muscle/fat store depletion
- Deteriorating skin condition, pressure ulcers, wounds or drain/line sites
- Continuously not achieving estimated requirements
- Multiple feed interruptions