How to Enterally Feed the Prone Patient with COVID-19

Whether the prone patient is on the ventilator or proning is used to prevent intubation, it is safe to start and advance tube feeding to goal for most patients. Intragastric enteral nutrition (EN) may be provided safely. EN during prone positioning is not associated with increased risk of pulmonary complications.

Considerations for feeding prone = same as feeding supine:

- Hemodynamic stability
- Functioning GI tract
- Enteral access

Begin Feedings

- Within 24-36 hours of ICU admission
- Use a standard high protein (> 20% protein) polymeric isotonic enteral formula in the early acute phase of critical illness; use a peptide-based formula for improved GI tolerance when indicated
- Provide continuous feeding delivery using an enteral pump as available
- Initiate at trophic rate (10-20 mL/hour) and advance as tolerated to goal over the first week

Monitoring

- Maintain strict aspiration precautions and routine oral care
- Early consideration for pro-motility agents may be warranted
- Do not routinely check Gastric Residual Volumes (GRV) however if your institutional protocol includes GRV checks, only hold EN if volume >500ml and with persistent signs of gastric feeding intolerance
- Monitor for constipation and consider bowel regimens

When Trophic Feeds or No Feeds are Best

- Inability to maintain reverse Trendelenburg elevation
- Worsening hemodynamics
  - Increasing vasopressor requirements
  - MAPs below target range
  - Persistently rising lactate
- Evidence of persistent GI intolerance
  - Vomiting
  - Abdominal exam: distented, firm, tense, guarded, discomfort
  - Abnormal radiographs indicating obstruction or ileus
- Consider parenteral nutrition if intolerance to enteral nutrition persists

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TIPS FOR SUCCESS

- Place feeding tube while supine, before proning, or use existing NG or OG tube to reduce COVID exposure
- Reverse Trendelenburg: head of bed elevation at least 10-25 degrees to minimize aspiration risk
- Consider temporarily disconnecting tube feeding before turning
- Safely maintain positioning of enteral access (feeding tube) in nose/mouth during and after proning by securing tube to patient while turning to prevent dislodgement
- Obtain abdominal X-ray prior to restarting tube feeding if concern for tube dislodgement during turning process
- Some institutions hold tube feeding 1 hour before and after proning but others feel this is not necessary – check your institutional protocol

References

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