Case Study Panel Discussion - BDA Critical Care Specialist Group Study Day 20/11/2026

48-year-old male with past medical history of hypertension (well controlled on single agent)

Previously independent, works full time, non-smoker

Weight 102 kg; Height 1.76 m; BMI 32.9 kg/m²

Admitted to local district general hospital with shortness of breath and hypoxaemia. Significant changes noticed on chest x-ray and positive for influenza A on rapid antigen testing. Working diagnosis of severe acute respiratory failure (SARF) due to influenza and secondary bacterial pneumonia.

Day 1: Deteriorated despite high flow nasal oxygen and continuous positive airway pressure (CPAP) support – intubated, started on high dose sedation and neuromuscular blocking agents (paralysis).

Day 2: Ongoing severe hypoxaemia - prone ventilation, extracorporeal membrane oxygenation (ECMO) referral to specialised unit made.

Day 3: Retrieved on mobile veno-venous (VV) ECMO and transferred to SARF centre.

Day 5: High sedation requirements. Continuous renal replacement therapy (CRRT) started for fluid offloading. Prokinetics started due to high gastric residual volumes (GRVs).

Day 10: CRRT stopped. Bedside nasojejunal (NJ) feeding tube inserted due to persistent high GRVs despite dual prokinetics and frequent feeding interruptions (energy and protein delivery <50% of calculated targets)

Day 18: Decannulated from VV ECMO following successful trial off sweep.

Day 25: Bedside percutaneous tracheostomy performed following multiple failed extubation trials, sedation gradually weaned off.

Day 35: Ongoing ICU acquired weakness (ICUAW), respiratory weaning has not been possible.

Days 40-75:

NJ tube accidentally pulled out and replaced with 10 Fr nasogastric (NG) tube, good tolerance to NG feeding with energy and protein delivery meeting approximately 90% of daily targets.

New weight (day 60) = 93 kg (8.8% weight loss); BMI 30.0 kg/m²

On pressure support ventilation (PSV) via trache. Repeated ventilator weaning attempts, but unsuccessful due to a combination of diaphragmatic fatigue and generalised weakness.

Severe physical fatigue during rehab (limited to short sessions of sitting at the edge of the bed with 2-person assist).

Cuff deflation and passy-muir valve (PMV) assessment have occurred, but due to high secretion volume (chest & saliva) and weak cough, patient not ready for regular cuff deflation and PMV. Desperate to have a drink and asks multiple times daily.

Day 85: Following discussion with the family and multi-disciplinary team, the patient was transferred to the long-term respiratory weaning unit.

Day 100 (current status):

Trache remains in situ, on PSV. Tolerating up to 30-45 minutes on trache mask, but has progressed to all day cuff deflation and PMV. Continues to require regular secretion suctioning. Able to achieve longer periods of sitting at the edge of the bed and starting to take a few assisted steps with physio.

Repeat Fibreoptic Endoscopic Evaluation of Swallowing (FEES) at this point shows no aspiration of saliva, but aspiration on food and fluids.

Remains on continuous NG feeding.

New weight = 91 kg (total 10.8% weight loss); BMI 29.4 kg/m^2

MDT Panel:

Dr Segun Olusanya – Consultant in Intensive Care Medicine

Hayley Beckett – Principal Critical Care Dietitian

Sam Dean – Clinical Specialist Physiotherapist for Critical Care

Aeron Ginnelly – Clinical Lead Speech & Language Therapist for Critical Care

Angela Reddy – Critical Care / Respiratory Dietitian