

Monitoring Nutrition Support patients in Intensive Care

An interdisciplinary approach is advised when monitoring nutrition support. Local guidelines should be in place in all intensive care units to ensure safe practice.

Table 1 Factors to consider in daily nutritional assessment (adapted from O’Hanlon et al., 2015)

Daily nutritional assessment considerations (alphabetical order)

Changes in medical management and planned procedures.
 Changes in medications with nutritional implications.
 Feeds missed and underlying reason(s).
 Glycaemic control and use of insulin
 Indicators of feed tolerance, e.g. gastric residual volumes, emesis, diarrhoea.
 Haemodynamic stability/instability.
 Laboratory results – see Table 12.8 for details.
 Nutritional adequacy: nutrition delivered vs prescribed.
 Nutritional requirement estimation/measurement.
 Organ function and need for support, e.g. renal replacement therapy.
 Outputs, e.g. drains, urine, gastrointestinal, fistula, wound.
 Presence of sepsis/infection.
 Route of nutrition support and appropriateness:

- If EN – type of tube and access, e.g. assess if nasojejunal access is needed.
- If PN – check access site and assess possibility of transitioning to, or combining with EN.

 Surrogate measures of nutritional status, e.g. wound healing, pressure ulcer development, signs of micronutrient deficiency.
 Swallow assessment results (per SLT) – if applicable.

Table 2 Biochemical monitoring suggestions adapted from ESPEN guidelines (adapted from Singer et al., 2019)

Parameter to be measured	Frequency of measurement
Glucose	Initial period: at least every 4-6h Later period: at least twice daily
Phosphate	Initially on admission At least once daily
Potassium	Initially on admission Laboratory: at least once daily When doing blood gas, e.g. every 6h
Urea, creatinine, sodium, chloride	Once daily
Liver function tests	At least twice weekly
Triglyceride	Twice weekly
C-Reactive Protein	Daily or as indicated
Full blood count	Daily or as indicated