

How does Northern Health's Parenteral Nutrition Service compare with best practice guidelines?



RESEARCH WEEK
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INSPIRED RESEARCHERS
Northern Health

Northern Health

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BACKGROUND

Parenteral Nutrition (PN) is a specialised nutrition therapy delivered intravenously when nutritional requirements cannot be met through oral or enteral nutrition.

AIM

To identify gaps between the **Northern Health PN policy** and three international best-practice guidelines:

- ◆ ASPEN
- ◆ ESPEN
- ◆ NICE

METHOD

1. Literature Review

ASPEN, ESPEN, and NICE guidelines were reviewed.

2. Guideline Audit

Comparison of the three guidelines with Northern Health PN policy across 22 clinical criteria.

3. Gap Analysis

Two outcome-measured tools were used to assess compliance:

Compliance Framework

- Full Compliance
- Partially Compliant
- Non-Compliant

Traffic Light Rating System

- Matches best-practice model of care
- Partially meets model of care. Improvement achievable within current resources.
- Does not meet model of care within current resourcing.

RESULTS

- **18% full compliance** with ASPEN, ESPEN and NICE guidelines.
- **More than 50% of criteria** were either fully or partially compliant with ASPEN guidelines.
- **Several criteria were non-compliant** across all guideline groups.

Clinical Implications

Updating the Northern Health PN policy will:

- Support clinician decision-making
- Improve consistency of care
- Enhance patient safety
- Improve patient outcomes

CONCLUSION

- Northern Health's PN policy presents opportunities to improve alignment with international best-practice guidelines.
- Many improvements are achievable within existing service resources.
- Guideline revision will strengthen evidence-based practice and improve patient outcomes.

Table 1. ASPEN Gap Analysis

Criteria:	Is NH Compliant with ASPEN Guidelines?	Traffic Light Rating System:
Team members	Fully compliant	
Indications	Partially compliant	
Initiation	Partially compliant	
Referral	-	N/A – ASPEN not mentioned
Contraindications	-	N/A – NH not mentioned
Precautions/special considerations	Partially compliant	
Nutrition assessment	Fully compliant	
Ordering process	Partially compliant	
Administration	Partially compliant	
Equipment	Fully compliant	
Bag composition	Fully compliant	
Lipids	-	N/A - NH not mentioned
Additives	Partially compliant	
Storage	Partially compliant	
Access for PN	Partially compliant	
Monitoring	Partially compliant	
Management of complications	Non-compliant	
Micronutrient screening	Non-compliant	
Weaning	Non-compliant	
Ceasing	Partially compliant	
Documentation	Partially compliant	
Troubleshooting	-	N/A – ASPEN not mentioned

Table 2. ESPEN Gap Analysis

Criteria:	Is NH Compliant with ESPEN Guidelines?	Traffic Light Rating System:
Team members	-	N/A – not enough information to compare
Indications	Partially compliant	
Initiation	-	N/A – not comparable
Referral	-	N/A – ESPEN not mentioned
Contraindications	-	N/A – not enough information to compare
Precautions/special considerations	Partially compliant	
Nutrition assessment	Fully compliant	
Ordering process	-	N/A – ESPEN not mentioned
Administration	-	N/A – not comparable
Equipment	-	N/A – ESPEN not mentioned
Bag composition	Fully compliant	
Lipids	-	N/A – NH not mentioned
Additives	Partially compliant	
Storage	-	N/A – ESPEN not mentioned
Access for PN	Fully compliant	
Monitoring	Fully compliant	
Management of complications	Non-compliant	
Micronutrient screening	Partially compliant	
Weaning	-	N/A – not enough information to compare
Ceasing	-	N/A – ESPEN not mentioned
Documentation	-	N/A – ESPEN not mentioned
Troubleshooting	-	N/A – ESPEN not mentioned

Table 3. NICE Gap Analysis

Criteria:	Is NH Compliant with NICE Guidelines?	Traffic Light Rating System:
Team members	Fully compliant	
Indications	Fully compliant	
Initiation	Non-compliant	
Referral	-	N/A – NICE not mentioned
Contraindications	-	N/A – not enough information to compare
Precautions/special considerations	Partially compliant	
Nutrition assessment	Fully compliant	
Ordering process	-	N/A – NICE not mentioned
Administration	Partially compliant	
Equipment	-	N/A – NICE not mentioned
Bag composition	-	N/A – NICE not mentioned
Lipids	-	N/A – both guidelines not mentioned
Additives	Fully compliant	
Storage	-	N/A – NICE not mentioned
Access for PN	Partially compliant	
Monitoring	Partially compliant	
Management of complications	-	N/A – NICE not mentioned
Micronutrient screening	Partially compliant	
Weaning	-	N/A – NICE not mentioned
Ceasing	Non-compliant	
Documentation	-	N/A – NICE not mentioned
Troubleshooting	-	N/A – NICE not mentioned