

TOTAL PARENTERAL NUTRITION – INFUSION LINE CHANGE

This Local Operating Procedure is developed to guide safe clinical practice in Newborn Care Centre (NCC) at The Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this Local Operating Procedure.

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INTRODUCTION

Nutrition to neonates who are unable to feed is administered via a dedicated intravenous line. Changing the infusion line is a sterile procedure.

NOTE:

- The infusion set for Total Parenteral Nutrition (TPN) and lipids are changed every 48 hours under aseptic conditions.
- If lipid infusion rate is greater than 1ml/hour, use a lipid bag rather than a lipid syringe.
- For a lipid bag, use a Volumat line with a blue filter.

1. AIM

- To set up or change the TPN infusion set correctly and safely

2. PATIENT

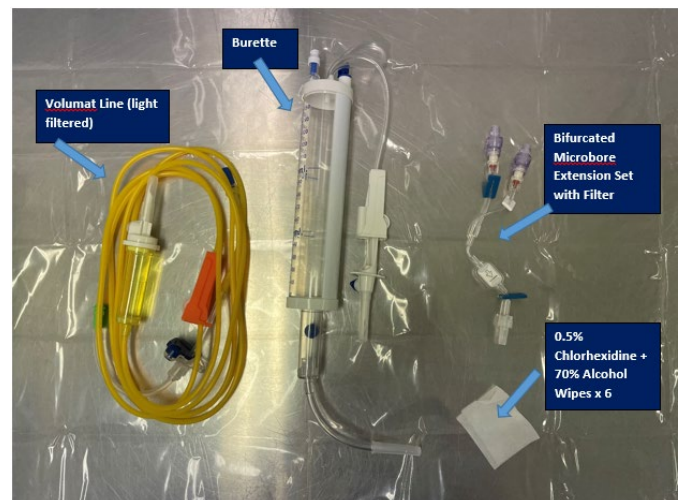
- Newborns

3. STAFF

- Medical and nursing staff

4. EQUIPMENT

- Sterile gloves and towels
- Appropriate TPN as ordered
- SMOF lipids
- Large sterile drape
- Amber opaque extension set (lipid line)
- Volumat line (TPN line)
- Add on burette set
- Bifurcated microbore extension set with neutral valves and filter
- 2% chlorhexidine with 70% alcohol wipes x 6
- Trolley
- Neutral detergent



5. CLINICAL PRACTICE

Procedure

1. Collect equipment.
2. Check the fluid prescription with a RN:
 - Correct patient
 - Correct fluid
 - Correct dose
 - Correct site/route
 - Correct time

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3. Clean trolley with neutral detergent.
4. Perform hand hygiene.
5. Place sterile drape on trolley surface.
6. Open packets of equipment onto sterile field.
7. Surgical scrub hands for 2 minutes, dry with sterile towel and don sterile gloves.
8. Request assistant to open TPN and lipid packages.

TPN Line

9. Attach Volumat line to burette.
10. Attach to double lumen bifurcated microbore extension set with neutral valves and filter.
11. Clamp Volumat line.
12. Attach burette to TPN bag.
13. Prime the line. Ensure there is no air in the line.

Lipid Line

14. Attach amber opaque extension set to lipid syringe/bag.
15. Attach amber opaque extension set to double lumen bifurcated microbore extension set with neutral valves and filter.
16. Prime the line.

Connecting the Clean Set

17. Request assistant to open the 2% Chlorhexidine with 70% alcohol wipes.
18. Assistant to perform the first clean of the connection hub and line 2 cm either side of the hub
19. Wait for 30 seconds drying time holding the line.
20. Proceduralist to perform a second scrub of the connection hubs and line 2 cm from the hub.
21. Wait for 30 seconds drying time holding the line.
22. Proceduralist to disconnect old fluid line (break the line) and perform the third clean, scrubbing the hub vigorously
23. Wait for 30 seconds drying time ensuring you keep hold of the line avoiding contaminating the hub.
24. Check the fluid prescription and fluids before connecting straight up to the hub.
25. Insert the appropriate infusion lines in appropriate pumps.
26. Check fluid orders, set rate and release white slip-lock clamps.
27. Start infusion.
28. Remove and discard drapes and equipment.
29. Remove sterile gloves.
30. Perform hand hygiene.
31. Clean trolley.
32. Label all lines with fluid type, date and time of change.
33. Sign fluid chart and document line change in eMR.
34. Handover line change at change of shift.

6. DOCUMENTATION

- eMR
- Neonatal Observation Chart

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7. RELATED POLICIES/PROCEDURES/CLINICAL PRACTICE LOP

- RHW NCC Medical LOP – Parental Nutrition in Newborns
- RHW NCC Nursing LOP – Intravenous Line Management

8. RISK RATING

- Low

9. NATIONAL STANDARD

- Standard 1 Clinical Governance
- Standard 3 Preventing and Controlling Healthcare-Associated Infections
- Standard 4 Medication Safety
- Standard 5 Comprehensive Care
- Standard 6 Communicating for Safety

10. ABBREVIATIONS AND DEFINITIONS OF TERMS

NCC	Newborn Care Centre	SMOF	Soya Oil, Medium Chain Triglycerides, Olive Oil, Fish Oil
TPN	Total Parental Nutrition	RN	Registered Nurse

11. AUTHOR

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REVISION & APPROVAL HISTORY

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