

## 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.*

*Using this document outside the Royal Hospital for Women or its reproduction in whole or part, is subject to acknowledgement that it is the property of NCC and is valid and applicable for use at the time of publication. NCC is not responsible for consequences that may develop from the use of this document outside NCC.*

### 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/hr, 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

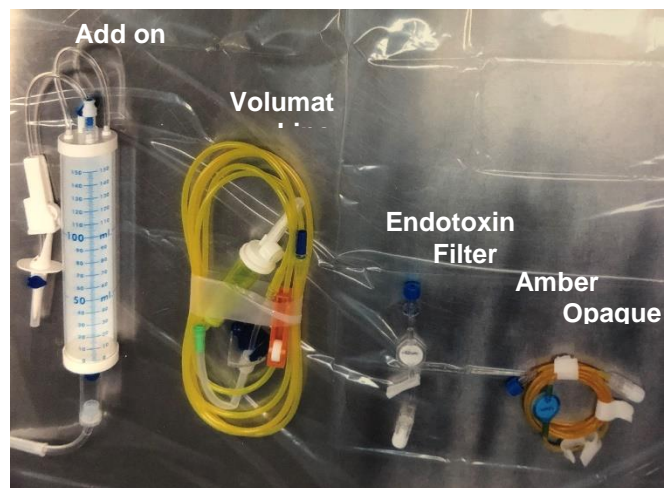
- Newborns

### 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
- Endotoxin filter (ref. MFX1643)
- Double Lumen Smartsite extension set
- 2% Chlorhexidine with 70% alcohol wipes x 2
- Trolley
- Neutral detergent



### 5. CLINICAL PRACTICE

#### Procedure:

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

**NEONATAL SERVICES DIVISION**

---

Approved by Quality & Patient Care Committee  
November 2018

**TOTAL PARENTERAL NUTRITION – INFUSION LINE CHANGE cont'd**

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 30 seconds, dry and put on sterile gloves.
8. Request assistant to open TPN and lipid packages.

TPN Line

9. Attach Volumat line to burette
10. Attach endotoxin filter to Volumat line
11. Attach to double lumen Smartsite extension set
12. Apply white slip-lock clamp/s on Smartsite extension set
13. Attach burette to TPN bag
14. Prime the line. Ensure there is no air in the line.

Lipid Line

15. Attach amber opaque extension set to lipid syringe/bag.
16. Attach amber opaque extension set to double lumen Smartsite extension set.
17. Prime the line.
18. Apply white slip-lock clamp/s on Smartsite extension set.

Connecting the Clean Set

19. Request assistant to open the two 2% Chlorhexidine with 70% alcohol wipes.
20. Request assistant to hold the access port of the infusion line for cleaning.
21. Scrub the connection hubs for 30 seconds with the 1<sup>st</sup> swab. Allow 30 seconds drying time.
22. Scrub the hubs again and away from the lumen along the line for 30 seconds.
23. Check the fluid prescription again.
24. Disconnect the old set and attach the clean set up.
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 lines.
33. Sign fluid chart and document line change in eMR.
34. Handover line change at change of shift.

**6. DOCUMENTATION**

- eMR nursing notes
- Neonatal Observation Chart

**7. RELATED POLICIES/PROCEDURES/CLINICAL PRACTICE LOP**

- Parental Nutrition in Newborns
- Intravenous Therapy

**8. RISK RATING**

- Low

**NEONATAL SERVICES DIVISION**

---

Approved by Quality & Patient Care Committee  
November 2018

**TOTAL PARENTERAL NUTRITION – INFUSION LINE CHANGE cont'd**

**9. NATIONAL STANDARD**

- Standard 1 Governance for Safety and quality in Health Service Organisation
- Standard 3 Preventing and Controlling Healthcare Associated Infections
- Standard 4 Medication Safety
- Standard 5 Patient Identification and Procedure Matching
- Standard 6 Clinical Handover

**10. ABBREVIATIONS AND DEFINITIONS OF TERMS**

NCC	Newborn Care Centre	RN	Registered Nurse
TPN	Total Parental Nutrition		

**11. AUTHOR**

Primary	23/10/2018	J Hudson (RN)
---------	------------	---------------

**REVISION & APPROVAL HISTORY**

October 2018 Primary Document Approved NCC LOPs Committee

**FOR REVIEW: 2023**