# Peripheral Intravenous Therapy

## Purpose

To guide staff on the scope of peripheral IV therapy and safe, appropriate management.

## Policy

Staff and approved persons must have a peripheral intravenous (IV) therapy endorsement.

## Applicability

All Peripheral IV Therapy Endorsed staff, Medical Practitioners and Approved Persons.

All staff involved in the double independent checking role with peripheral IV medication/fluid and cannulation endorsed staff.

For Peripheral IV cannulation endorsement refer to *Peripheral Intravenous Cannulation (PIVC) Ref: 2403026*.

## Requirements for Peripheral Intravenous Therapy Endorsement:

- Staff who move to Te Whatu Ora Waitaha Canterbury or Te Tai o Poutini West Coast from another district or New Zealand organisation, can receive a recognition of prior learning if they have achieved peripheral IV therapy endorsement, and can show you that evidence, and complete a clinical skills peer assessment (with an educator or other senior staff member).
- The educator will sign them off online as now holding an endorsement to administer medication via a peripheral intravenous cannula, in the HealthLearn course:

  Intravenous Therapy (Peripheral) Clinical Skills Peer Assessment - National **RGMS029.**
- If a staff member does not have evidence of attaining a peripheral IV therapy endorsement from another organisation or Te Whatu Ora District, they will need to complete the required Medication and Fluid Foundation Programme (e.g., Medication and Fluid Foundation 3) in HealthLearn and a clinical skills peer assessment.
- If a staff member is moving to a new scope (e.g., from Operating Theatre to Paediatric) they will need to complete the required theory programme for that new area, and a clinical skills peer assessment for that scope.
- Staff who have been away on long term leave (e.g., more than a year), will only need to compete a clinical skills peer assessment to regain their endorsement (to demonstrate use of any new equipment or policy/procedure change)
- Staff who do not have a peripheral IV therapy endorsement will need to complete the required theory modules AND a clinical skills peer assessment before gaining their peripheral IV therapy endorsement.
- Peripheral IV therapy endorsed staff and approved persons must adhere to the *Roles and Responsibilities Policy Ref: 2401678*

**NB:** Nursing staff in Specialist Mental Health are not generally required to be endorsed in peripheral IV therapy administration, however, some SMHS areas may encourage this.

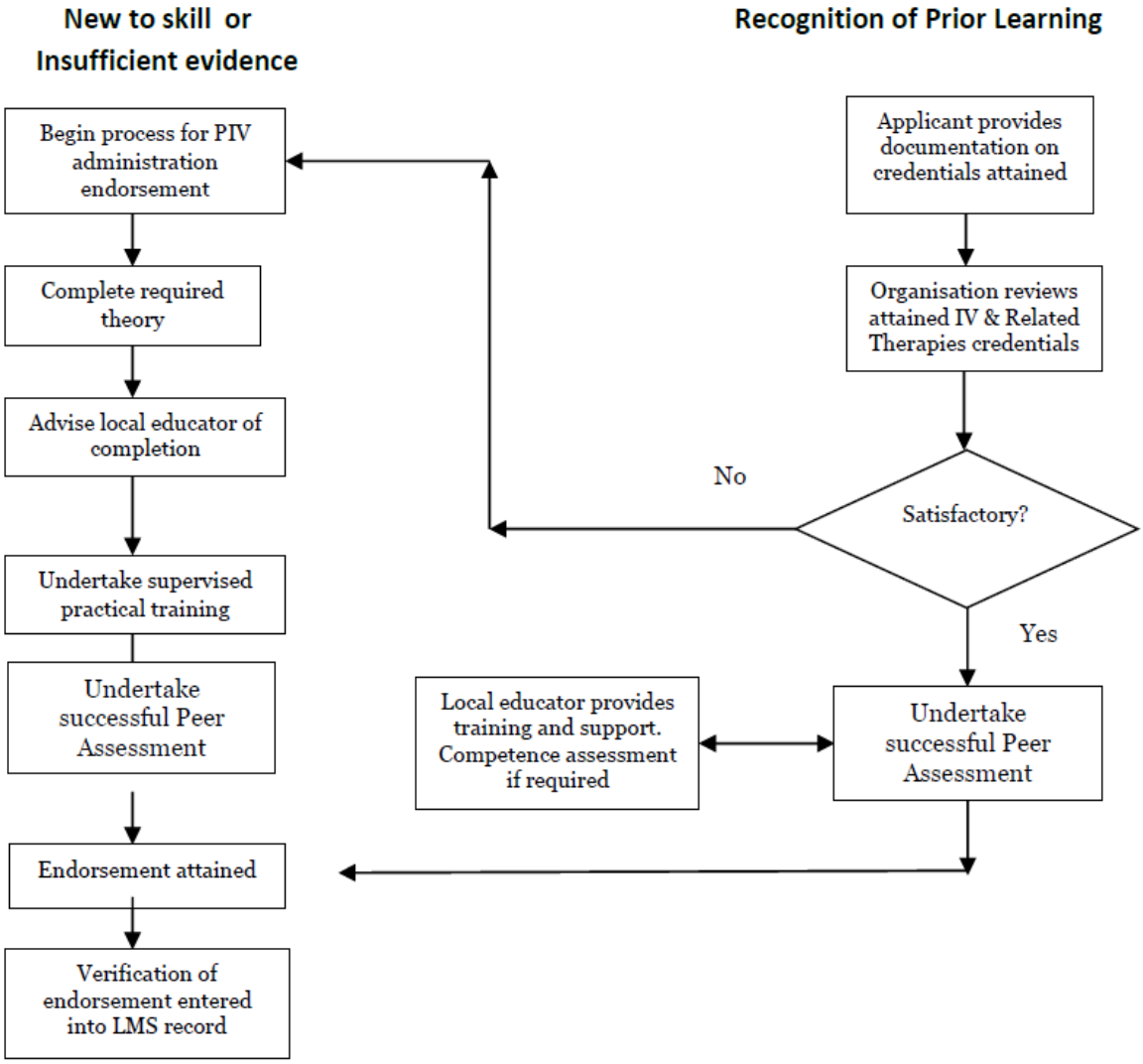



Figure 1: Peripheral IV Therapy Endorsement Flowchart

## General IV Procedural Requirements

- Roles and responsibilities for staff and approved persons involved in medication and fluid management are outlined in the *Roles and Responsibilities Policy Ref: 2401678*.
- When preparing to administer a medication or fluid, refer to approved medication and fluid reference methods *(as per supporting material)* or contact the pharmacy.
- A non-coring blunt needle will be used to draw up fluid from a poly-ampule or vial
- Therapy effects, variances or complications must be documented within the patient's clinical notes.

## Incremental Syringe Use

- With any incremental therapy, attach patient identification information and an additive label to the syringe. Do not reuse ampoules – discard appropriately.
- Use the same administrator for each incremental dose and perform the double independent check procedure prior to each subsequent dose.
- A new syringe cap is to be attached after each incremental dose.
- Discard the syringe at the end of the shift/patient procedure.
- Controlled/Recorded drugs must be returned to the drug safe between incremental doses where the drug and patient will not be under constant surveillance by the administrator *(e.g. ward settings).* Refer to the Controlled and Recorded Drug Register Documentation and Monitoring Requirements Policy for information on documenting and discarding unused drugs.

## Peripheral Intravenous Catheter Management

Peripheral Intravenous Catheter (PIVC) are removed and/or replaced when 'clinically indicated'.

***'Clinical Indication' is: (Refer to VIP score)***

- If PIVC is no longer required (treatment discontinued)
- VIP score of 2, remove PIVC and re-site if IV access is still required
- Signs of tissue infiltration or oedema
- PIVC dysfunction e.g. resistance when flushing
- PIVC dislodgement/kinking

***Management:***

- PIVC site and patient assessment eight hourly.
- When vesicant medication is used assessment is one to four hours.
- Redress IV cannula using a 3M cannulation kit to maintain ANTT. Use 2% chlorhexidine & 70% alcohol wand in cannulation starter kit for skin decontamination.
- Use a 3M cannulation starter kit to redress a PIVC.
- Change dressing immediately if dressing becomes loose, damp, soiled, blood is present.
- Change dressing every 5-7 days if cannula is functioning, still required and site is not compromised.

***PIVC Cannula Removal***

- Remove PIVC when 'clinically indicated' or VIP score of 2. **Exception:** Refer to Neonatal policy for neonates
- All **community placed** PIVC cannula must be identified and replaced within as soon as practicable. Documented rationale is required in the clinical notes if the PIVC has not been re-sited within 24 hours.
- Use the designated 'IV pressure pads' upon removal of the PIVC, removing the pad after 30 minutes.

***PIVC Flushing***

- Where an extension set **has not been attached** at insertion and the patient requires more than 24hrs of IV therapy, an extension set must be attached aseptically. Extension sets minimise PIVC movement and reduce the risk of complications.
- When flushing an extension set attached to the end of a PIVC, use the clamp to provide positive pressure at the end of the flush to assist in avoiding red cell occlusion of the PIVC

- A flush pre- and post- bolus/intermittent infusion administration must occur with at least 5 ml IV 0.9% Sodium Chloride. These do not require prescribing.
- With Intermittent medication therapy infusions, the PIVC must be flushed post administration with 30 ml of 0.9% Sodium Chloride to ensure the patient receives the whole dose.
- Where a 30 ml infusion flush is required post administration this flush will not require prescribing, you are administering the rest of the drug dose not the flush.
- The recommended method for flushing intermittent infusion tubing is to attach a 100ml bag of 0.9% Sodium Chloride and infuse 30 ml of this.
- PIVC must be flushed with 0.9% Sodium Chloride at least once per shift to maintain patency. When no IV medication/fluid administration is prescribed, the administrator must document this flush in the medication chart to ensure traceability.

***Documentation***

- IV 0.9% Sodium Chloride flushes do not require documentation when used prior and post bolus or for intermittent therapy access/de access.
- Exception: Flushes will be recorded on the fluid balance chart where the patient is haemodynamically compromised or required as part of their Fluid Balance management.

## Labelling/Identification Guidelines for IV Administration Infusion Tubing

- Label all IV administration infusion tubing with time and date of commencement.
- Use an additive label where medication has been added to either the syringe or IV infusion bag.
- Where multi-drug infusion/administration is in progress, all administration set lines must have the drug identified on the distal end of each line used.
- Always trace tubing from the patient to the point of origin before connecting or giving a bolus.
- Apply a patient label to the administration infusion tubing in situations where the patient will be disconnected/separated from the infusion temporarily, to ensure that the line correlates to the correct patient on reconnection.

## Infection Prevention and Control Requirement for Peripheral IV Therapy

- Intermittent IV infusions require administration set changes after each administration.
- An IV administration set that is in use to infuse fluid or medication via a peripheral IV cannula must be disconnected and discarded and not reconnected to a newly inserted or existing CVAD.
- Continuous IV infusions require an administration set change at least every 72 hours **Exceptions:** where specific medication requirements exist e.g., Blood and Blood products (blood filters changed every 8 hrs.), e.g., Ciclosporin and Parenteral Nutrition (PN) sets changed every 24hrs.
- A new sterile cap (Combi-loc device) must be attached to the end of the administration set where a continuous infusion has been temporarily stopped for short periods of time to ensure asepsis is maintained. The end of the administration set must be cleaned with chlorhexidine and alcohol wipe and allowed to dry prior to attaching the Combi-loc device.
- Refer to Drug Information resources, pharmacy or other policy for clarification where required.

## Child Health Specific IV Infusion Requirements

- To prevent fluid overload, all fluids given intravenously must be delivered via a volumetric pump using the appropriate drug library and set to a two-hour limit at the appropriately prescribed rate.
- For certain medications requiring a dilution between 110-180mls of a compatible fluid, a burette is required.
- These requirements also apply to Paediatric CVAD use.

## Intermittent Disconnection of an IV Administration Set

- A new sterile cap (combi-loc device) must be aseptically attached to the end of the administration set when disconnecting the system from the cannula.
- Do not attach the exposed end of the administration set to a side port on the same infusion set ('looping') – this poses a risk of contamination.

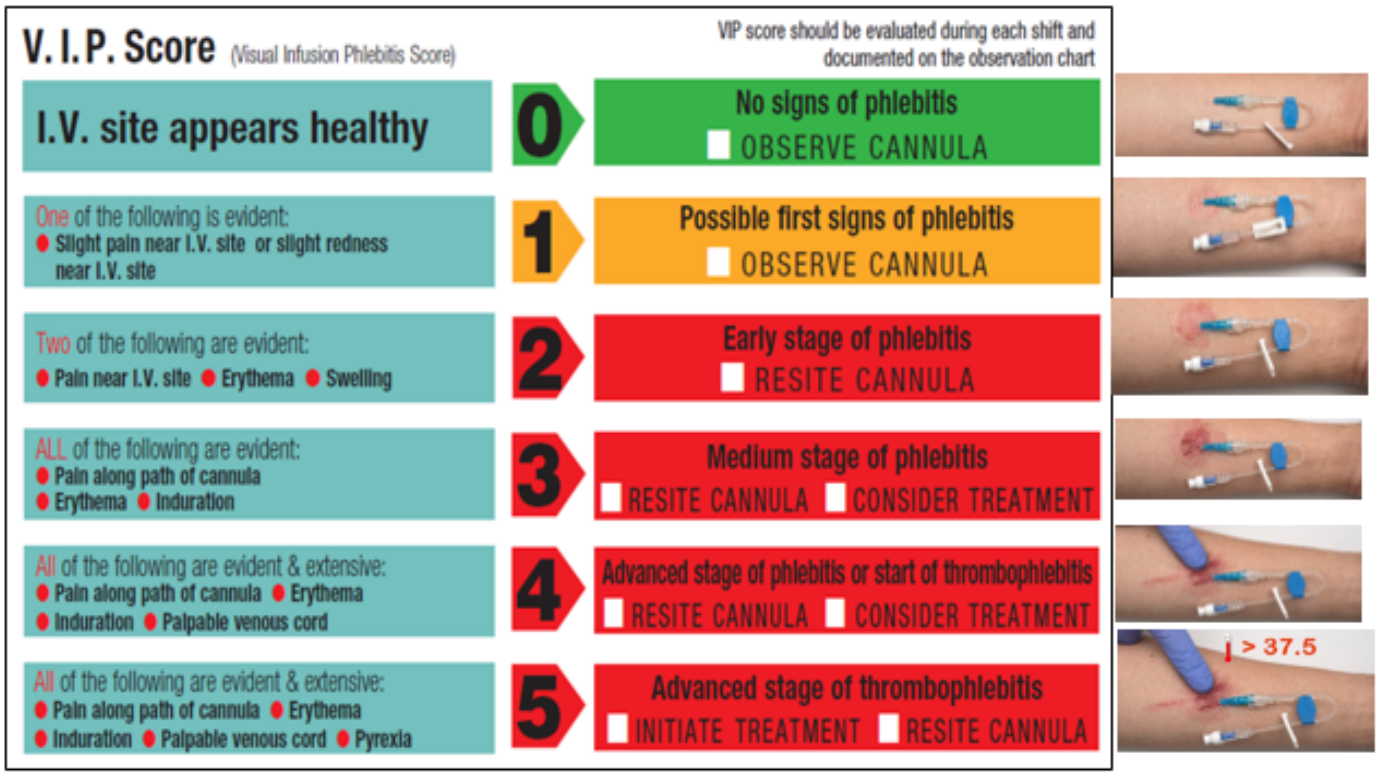
## Electronic Infusion Pump Requirements

- Where Guardrails have been incorporated into infusion devices the technology will be used for all drug infusions listed within the required drug library profile set up for that area.
- Any changes to the dose/rate or time delivery of the infusion should be checked by 2 authorised persons (refer to the Roles and Responsibilities policy) and signed by both persons to confirm the correct patient and dose/rate.
- Pumps must have the alarm system activated at all times.
- Pumps must be plugged into the mains power at all times when the patient is not mobilising or when not in use.
- In Child Health and Neonates ensure pump pressure settings are correct for the patient's age and infusion requirements.
- Clean pumps with Clinell Universal wipes (2-in-1 disinfectant and detergent product) as per Infection Prevention and Control Policy. **NB:** Squeeze out excess moisture of wipes for sensitive electronic components.

## Visual Infusion Phlebitis Score (VIP)

- VIP scores will be performed on each occasion prior to accessing the PIVC or at least every 8hrs.
- Patients with infusions who have been assessed as understanding the complications of the therapy will have their site monitored at each point of contact and entered in CORTEX or Patientrack or appropriate clinical note.
- Children and adult patients who are unable to understand or communicate side effects of the IV therapy, PIVC sites will be monitored hourly and the VIP score entered in CORTEX or Patientrack or appropriate clinical note.
- Where medication infusion instructions/policies exist follow these instructions for VIP assessment and documentation.
- VIP scores are to be entered in CORTEX or Patientrack or appropriate clinical note.
- Where a VIP score is 2> actions taken must be included in documentation.

## Visual Infusion Phlebitis Score (V.I.P)




## Other IV Therapy Considerations

- Refer to the Central Venous Access Device (CVAD) policy for CVAD management requirements
- Refer to the Peripheral IV Cannulation Resource Book
- Refer to Fluid Balance Management Policy regarding recording IV fluid therapy
- For specific medications/fluids refer to local policy or the specific policy
- For incremental opioid administration refer to the policy
- Refer to Verbal Orders Policy for the documentation of IV verbal orders

## Policy Measurement

- Training database (HealthLearn) will hold endorsed staff and approved persons
- Patientrack data
- Incident management reviews

## Supporting Material

### Controlled Documents

Roles and Responsibility Policy Ref: 2401678

Fluid and Medication Checking Procedure Ref: 2402384

Peripheral IV Cannulation Policy Ref: 2403026

Patient Identification Policy Ref: 2400587

Health Care Waste Ref: 2403930

### Supporting Sites

IV link site

Notes on Injectable Drugs (NZ Hospital Pharmacists Association Inc.)

The New Zealand Formulary (nzformulary.org)

Intravenous Fluids (starship.org.nz)

Royal Children's Hospital Melbourne, Paediatric Pharmacopaedia

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