

SCOPE: Western Australia

RATIONALE

The infusion of a solution into the subcutaneous tissues (hypodermoclysis) may provide an alternative route for medication administration for select clients under the Medical Governance of an Infectious Diseases Physician where:

- venous access is poor
- there is a history of intravenous drug misuse
- the establishment or maintenance of an intravenous line presents a problem
- it is used as an interim measure until formal IV access can be established.

This protocol is for the use within the HATH WA (Hospital At The Home Service) only.

ACCEPTANCE TO HATH CRITERIA AND PATHWAY

<p>RED Unsuitable for community admission to HATH</p> <p>Refer to ED/ Inpatient management</p> <p>(May become suitable for HATH after inpatient stabilisation)</p>	<ul style="list-style-type: none"> • Known allergy or immediate hypersensitivity to the prescribed drug. • Co-existing medical conditions requiring hospital admission. • Pregnancy beyond 22 weeks gestation
<p>ORANGE Require discussion with Medical Governor and/or Infectious Diseases Physician prior to acceptance</p>	<ul style="list-style-type: none"> • All clients • Clients with coagulopathies or taking anticoagulated therapy • Clients with pre-existing that may affect absorption or predispose to fluid overload: - eg: heart disease, fibrosis
<p>GREEN Accepted for HATH Subcutaneous infusion protocol</p>	<p>All criteria must be met:</p> <ul style="list-style-type: none"> • Infection where the prescribed drug and route is endorsed by an Infectious Disease Physician. • Client's condition was assessed as stable and suitable for care within the home environment. • Ongoing medical governance by an infectious disease physician or infectious disease team. • Valid order for medication administration with a start and end date • Age 18 or over at time of admission (clients between 13 and 18 years of age can be accepted only if suitable for adult dosing and not under the care of a paediatrician). • Pregnancy up to 22 weeks gestation.

MEDICAL GOVERNANCE

- The client has access to medical governance support for 24 hours per day, 7 days per week.
- Primary medical governance can be by referring medical specialists, credentialed referring GPs or by Silver Chain medical staff.
- Care delivery is planned and provided in consultation with the client, medical officer/specialist holding medical governance and nursing staff.
- Where the primary medical governor is unavailable the Silver Chain medical officer can provide the medical governance.
- In the instance when a client's condition deteriorates the Silver Chain medical officer or nursing staff will confer with an emergency department medical officer.
- When governance is retained by a Silver Chain medical officer the client will have a medical review within 24 hours of admission and the medical officer will determine when the scheduled follow up and discharge will occur.
- A summary of the episode of care is sent to the referrer or the client's GP at discharge.

Subcutaneous administration should only be prescribed if alternative intravenous (IV) access is not available or feasible.

The medications listed in *Table 1* may be prescribed for subcutaneous administration by an infectious disease physician and be administered by Silver Chain Group Registered Nurses.

- This will override the Injectable Drugs Handbook recommendations.
- Any drug outside of *Table 1* must be discussed and approved by the HATH Medical Director.

Table 1: Medication approved for subcutaneous administration

Class of Antibiotic	Antibiotic
Carbapenems	Ertapenem sodium
Cephalosporins	Ceftriaxone sodium
Glycopeptides	Teicoplanin

REFERRAL

All referrals must be discussed and approved by the HATH Medical Director. The referral documentation must include:

- The name and contact number of the Infectious Disease Medical Governance.
- Valid medication order including end date.
- Follow up appointments with medical governance
- Required blood tests
- Course of treatment to date, including blood results in the last 48 hours before discharge (U&E, FBC, LFTs, CRP, drug level if required)
- Site of infection and causative organism (if known)
- Past medical history
- Current medications prescribed (list)

PATHOLOGY WORK UP

- U&E, FBC, LFTs, CRP, drug level if required
- Verify if any pathology has been ordered.

GENERAL MANAGEMENT

Medical Requirements

- A written medication authority from an infectious diseases medical practitioner is required for subcutaneous administration of medications.
- Subsequent orders are required when there is any change to the infusion rate, duration or medications prescribed.

Procedure Requirements

Consent for the procedure by client or their substitute decision maker is required.

The registered nurse (RN) must have knowledge and understanding of the medication prescribed and the client's condition. Assessment is required to ensure adequate subcutaneous tissue is present to facilitate medication/fluid absorption. The RN must be competent in the procedure including the use of any specific equipment required, eg Saf-T-Intima™; infusion pumps.

PROCEDURAL INFORMATION

Please refer to *Invasive Devices and Pumps – Continuous Sub Cutaneous Medication Administration via a Syringe Driver BC-PRO-0036*. All procedural information applies except for the information regarding the syringe driver.

DILUENT/ DOSAGE

Table 2: Medication and Diluent

Medication	Dosage	Diluent solution
Ertapenem	500 mg	50 mL 0.9% sodium chloride
Ertapenem	1 gm	50 mL 0.9% sodium chloride
Ceftriaxone	1 gm	50 mL 0.9% sodium chloride
Teicoplanin		50 mL 0.9% sodium chloride

MONITORING

Monitor and document vital signs on each client visit.

Indicators of clinical deterioration (discuss with medical governor and consider hospital transfer):

- Persistent fever > 37.8°C after 72 hours of subcutaneous antibiotic therapy
- Tachycardia, HR > 100/min
- Hypotension (systolic BP < 90, and/or diastolic BP <60)
- Signs of insertion site erythema or development of skin necrosis
- Increasing pain uncontrolled by prescribed analgesia.

FOLLOW UP

Refer back to client's Infectious Disease Medical Governance or GP.

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