Clinical Protocol for Continuous Infusion of Vancomycin

Policy Category	BC - Best Care		
Best Care Goals	☒ Safe ☐ Personal ☐ Connected ☒ Effective		
Applies To	National		
Version	**Approval Authority**	**Effective from**	**Review by date**
1	National Medical Director, WA	5/10/2021	5/10/2024

Contents

1. Rationale

The purpose of this Clinical Protocol is to provide a guiding framework for Hospital at the Home and in home services, Medical, Nurse Practitioners and clinical staff.

2. Scope

The Clinical Protocol applies to Nationally for clients where vancomycin is administered as a continuous infusion.

The Clinical Protocol does not apply to any medication other than vancomycin.

3. Acceptance to HATH Criteria and Pathway

RED Unacceptable for community admission to HATH Refer to ED/ Inpatient management. (May become suitable for HATH after ED or inpatient stabilisation)	• Under 16 years old • Pregnancy
ORANGE Requires discussion with Medical Governor and/or Haematologist prior to acceptance.	• Patients with known renal impairment may be accepted provided medical governance is held by an ID Physician and clients will need a plan for enhanced monitoring.
GREEN Accepted for HATH Protocol	• Suitable for care in the home environment. • Serious infection requiring CI vancomycin with no more appropriate alternative treatment. • Completed stabilisation of infection management in hospital. • Ongoing governance held by an Infectious Diseases Physician/team who will be available for escalation or advice.

At Time of Referral, The Following is Required:

Discharge summary, including details relating to:

- Site of infection, M C and S results and causative organism, if known.
- Course of treatment to date, including blood results <48 hours before discharge; U&E, Vancomycin level, FBC, LFT and CRP.
- Past medical history and medication list with particular attention to potential for renal impairment e.g. Diabetes, heart failure, chronic kidney disease, diuretics, ACE inhibitors etc.).
- Target Vancomycin range.

- Name and contact number for an Infectious Diseases medical governor-to be available 24/7.

- A blood test request form for Creatinine and Vancomycin level is to be available and the date test is to be performed clearly indicated.

4. Pathology Work Up

- Refer above

5. Medical Management / Treatment Plan

Dosing and Monitoring of Dose

- Plasma concentration monitoring is recommended for patients treated with vancomycin for longer than 48 hours, to optimise dosing. Monitoring is also important to minimise the risk of toxicity, especially in obese patients or patients with impaired kidney function.
- For intermittent vancomycin dosing in nonobese adults, an appropriate initial maintenance dosage is vancomycin 15 to 20 mg/kg (actual body weight) intravenously. A guide to frequency of dosing can be found in Therapeutic Guidelines Table 2.75-but will be determined by medical governor. Note dosing in obese adults is often uncertain-to be determined by medical governor
- Script to be provided by medical governor. Dose is determined by blood levels of vancomycin
- For results in the target range of 15-25 mg/L, the existing dose prescription may continue.
- Results outside this range should be discussed with the Medical Governor.
- Levels under 15mg/L and up to 25mg/L may not require a dose change, depending on the site and nature of the infection.
- Patients with levels >25mg/L should have their infusion stopped as soon as possible after the result is available and on the same day as blood taken, unless discussed with the ID Physician who holds governance.
- Further vancomycin is to be withheld until a lower dose infusor can be prescribed and provided (usually the following day).

- Dose changes should be implemented within 24 hours of the blood test result.

6. Monitoring

- Infuse vancomycin at a rate not exceeding 10 mg/minute to reduce the risk of the infusion-related 'red-man' syndrome. 'Red-man' syndrome is a histamine-mediated, nonallergic response to rapid vancomycin administration that is characterised by rash, muscle spasms of the chest and back, and sometimes hypotension.

  If 'red-man' syndrome occurs, extend the infusion time. If a 10 mg/minute infusion rate is tolerated, shorter infusion times may be possible, but should not be less than 60 minutes for a 1 g dose, 90 minutes for a 1.5 g dose, or 120 minutes for a 2 g dose.

    - Blood levels at the frequency determined by the Medical Governor; minimum weekly.

7. Medical Governance

- Governance must be held by an Infectious Diseases Physician.

8. Discharge Planning

- Determined by the Infectious Diseases Physician and pathology results
- A discharge summary must be provided to the usual GP

9. Supporting Documents

Silver Chain Group documents that directly relate to and inform this Clinical Protocol are available with this document in the Policy Document Management System (PDMS).

Other documents that directly relate to and inform this Clinical Protocol are as follows:

- Therapeutic Guidelines. eTGcomplete: Antibiotic (eTG March 2021 edition) https://tgldcdp-tg-org-au.silverchain.idm.oclc.org/topicTeaser?guidelinePage=Antibiotic&etgAccess=true

10. Document Details

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Periodic Review	36 months

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