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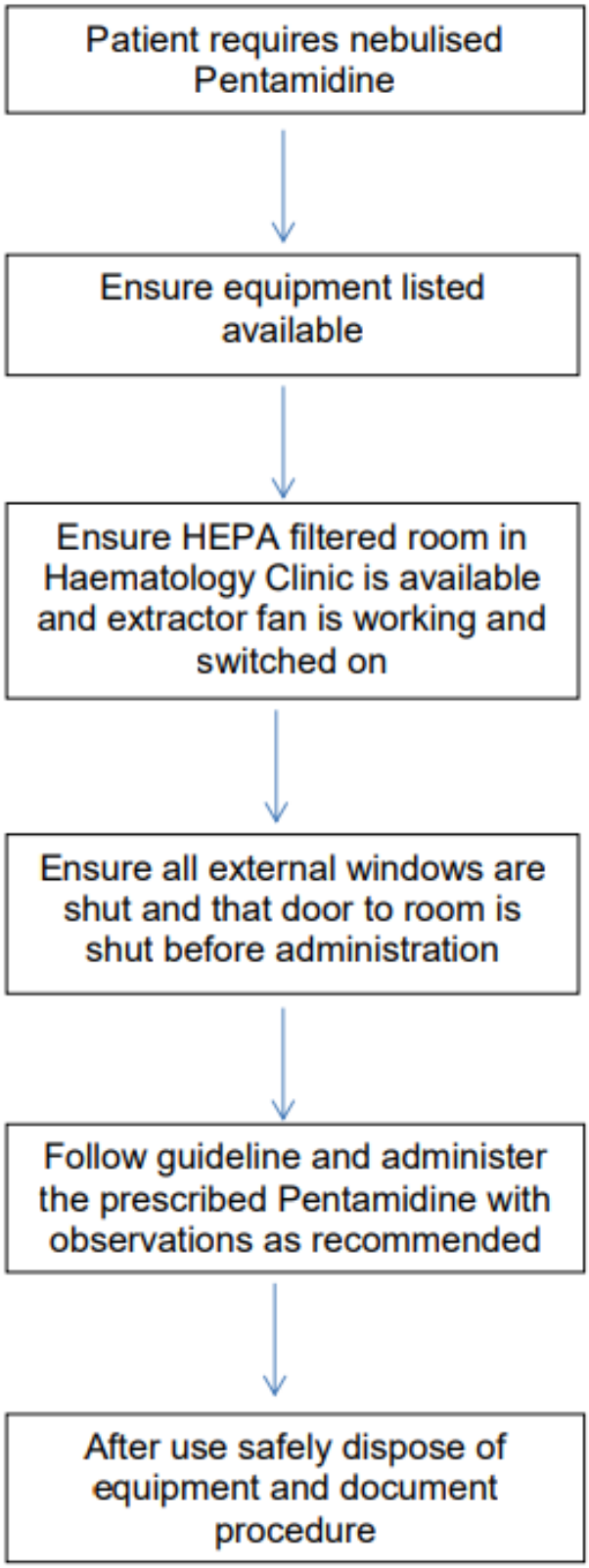
Royal Cornwall Hospitals NHS Trust

Administration of Nebulised Pentamidine Clinical Guideline

V3.0

April 2023

Summary


Patient requires nebulised Pentamidine
Ensure equipment listed available
Ensure HEPA filtered room in Haematology Clinic is available and extractor fan is working and switched on
Ensure all external windows are shut and that door to room is shut before administration
Follow guideline and administer the prescribed Pentamidine with observations as recommended
After use safely dispose of equipment and document procedure

1. Aim/Purpose of this Guideline.

1.1. To ensure the safe and consistent minimum standards of practice for safely administering nebulised Pentamidine within the hospital setting by the appropriately trained nursing staff.

1.2. This version supersedes any previous versions of this document.

Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation

The Trust has a duty under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed, and documented. We cannot rely on opt out, it must be opt in.

Data Protection Act 2018 and General Data Protection Regulations 2016/679 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 please see the Information Use Framework Policy or contact the Information Governance Team

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2. The Guidance.

2.1. To ensure the safe and consistent minimum standards of practice for safely administering nebulised Pentamidine within the hospital setting by the appropriately trained nursing staff. This guideline is only to be used for patients over 16 years of age being treated within the Haematology Clinic at Royal Cornwall Hospital. A separate risk assessment must be performed for Paediatric patients requiring nebulised Pentamidine.

2.2. Nebulized Pentamidine is an antiprotozoal antibiotic and is used as a prophylaxis for Pneumocystis Jiroveci Pneumonia (previously known as Pneumocystis Carnii Pneumonia) principally in patients who are immunocompromised and are unable to tolerate oral medication. Nebulized Pentamidine can cause bronchospasm and therefore a Salbutamol nebulizer must always be administered first. As the effect of inhaled Pentamidine is unknown in human pregnancy, pregnant staff should avoid handling Pentamidine.

2.3. **Equipment required**.

- Prescription.
- Prescribed Pentamidine for inhalation.
- Prescribed Salbutamol for inhalation.

- Salbutamol nebulizer kit.
- Pentamidine nebulizer kit (Sidestream Plus).
- Gloves, goggles and disposable apron.
- Face mask.
- Nebulizer.
- Door Sign ‘Do Not Enter’.
- Glass of water.

2.4. Procedure.

2.4.1. Obtain verbal positive patient identification and secure hospital identity bracelet.

2.4.2. Explain the procedure to the patient, including the drugs, equipment, why it is necessary and possible side effects. Written patient information will be provided on the first treatment.

2.4.3. All patients must be treated in a room equipped with negative pressure filtration, and ensure the windows are closed.

2.4.4. Ensure patient is sitting comfortably on bed/chair and can be observed from outside the room with a glass of water within reach.

2.4.5. As Pentamidine can cause bronchospasm - Blood Pressure, Pulse and Oxygen saturation should be recorded pre and post procedure for the first dose only. Thereafter, this only needs to be repeated if there is a clinical need.

2.4.6. Administer salbutamol nebulizer as per Royal Marsden Manual 8th edition Chapter 16.8. This will take approximately 10 – 15 mins.

2.4.7. Once complete, dispose of equipment in clinical waste bin, and allow 5 minutes rest before administering the Pentamidine.

2.4.8. Ensure negative pressure air filter to the room is switched on.

2.4.9. Staff must put on face mask, and wear goggles, gloves and apron.

2.4.10. Check Pentamidine against prescription and pour the solution into the Pentamidine nebulizer kit reservoir. Attach the mouthpiece to the reservoir. Attach one end of the tubing to the reservoir and the other to the nebulizer machine.

2.4.11. Instruct patient to place lips firmly over the mouthpiece.

2.4.12. Instruct patient to switch on the nebulizer machine once the door is closed.

2.4.13. The patient should be encouraged to breathe in and out through their mouth until all the solution has been nebulized (25 – 45 minutes).

2.4.14. If the patient requires a break during the pentamidine nebulizer the patient should be instructed to turn the machine off until ready to recommence the nebulizer.

2.4.15. The door must be kept closed at all times with a visible 'Do Not Enter' sign on the door.

2.4.16. Staff and relatives should remain outside of the room while Pentamidine is being administered unless there is a clinical need.

2.4.17. Once the procedure is complete the patient should be instructed to turn off the nebulizer and exit the room closing the door behind them.

2.4.18. Staff should allow at least 5 minutes before entering the room to minimize the risk of pentamidine inhalation.

2.4.19. Equipment must be disposed of in accordance with RCHT Waste Management policy.

2.4.20. Sign, date and record procedure.

2.4.21. Do not use room for other patients or procedures for 30 minutes after Pentamidine inhalation is completed.

2.5. Ownership and Responsibilities

2.5.1. The policy has been produced and will be managed by the Stem Cell Transplant Coordinator, with the Clinical Matron for Cancer Services, Specialty Lead for Clinical Haematology, and the senior nurses on the Headland Unit. Updates and amendments will be sanctioned through Clinical Matron for Cancer services in the first instance but also through the Stem Cell Transplant Coordinator including wider ratification.

2.5.2. Responsibility for safe administration of Nebulized Pentamidine Practice lies with the Clinical Matron for Cancer Services, Specialty Lead for Clinical Haematology. He / she is answerable to the Medical Director(s) of the Trust.

2.6. Clinical matron for Cancer services is responsible for:

Ensuring implantation and adherence to this policy.

2.7. Stem cell transplant Coordinator is responsible for:

Reviewing and updating the policy when due.

2.8. Role of the Senior Nurses of Headland Unit are responsible for:

- Dissemination of new version of policy.
- Ensuring all staff are aware of this policy.

2.9. Role of Individual Staff

- Ensuring they adhere at all times to the Nebulized Pentamidine policy.
- Only administer Nebulized Pentamidine if it is within their personal competency.

3. Monitoring compliance and effectiveness

Information Category	Detail of process and methodology for monitoring compliance
Element to be monitored	Compliance with the Guideline
Lead	Senior nurse on Headland Unit will take the lead on ensuring that all nursing staff who taking a role in administering nebulized Pentamidine are appropriately trained.
Tool	Adherence to guidelines will be monitored as part of the ongoing audit process on a Word or Excel template specific to the topic.
Frequency	Staff will be monitored at initial training.
Reporting arrangements	Where an issue with compliance is identified this will be reported to the Haematology Governance Group.
Acting on recommendations and Lead(s)	The senior nurse on Headland Unit and the Divisional Governance Committee will lead on any recommendations in changes of practice.
Change in practice and lessons to be shared	Required changes to practice will be identified and actioned. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders.

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Inclusion and Human Rights Policy' or the Equality and Diversity website.

4.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.

Appendix 1. Governance Information

Information Category	Detailed Information
Document Title:	Administration of Nebulised Pentamidine Clinical Guideline V3.0
This document replaces (exact title of previous version):	Administration of Nebulised Pentamidine Clinical Guideline V2.0
Date Issued/Approved:	March 2023
Date Valid From:	April 2023
Date Valid To:	April 2026
Directorate / Department responsible (author/owner):	Anna Old – Stem Cell Transplant Coordinator
Contact details:	01872 253224
Brief summary of contents:	Clinical guidance on the safe administration of inhaled Pentamidine.
Suggested Keywords:	Pentamidine, administration, inhaled
Target Audience:	RCHT: Yes CFT: No CIOS ICB: No
Executive Director responsible for Policy:	Chief Medical Officer
Approval route for consultation and ratification:	Haematology Oncology Specialty Group
General Manager confirming approval processes:	Ian McGowan
Name of Governance Lead confirming approval by specialty and care group management meetings:	Suzanne Atkinson
Links to key external standards:	None
Related Documents:	Royal Marsden Manual 8th edition RCHT Waste Management Policy COSHH Guidance: Pentamidine (BOHS 2006).
Training Need Identified?	No

Information Category	Detailed Information
Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet and Intranet
Document Library Folder/Sub Folder:	Clinical / Haematology.

Version Control Table

Date	Version Number	Summary of Changes	Changes Made by
21/03/2013	V1.0	Initial version	Sarah Johns, Haemostasis CNS
18/10/2016	V1.1	Reviewed and inserted into new Trust Guideline template	Sarah Johns, Haemostasis CNS
02/12/2019	V2.0	Reviewed and inserted into new Trust Guideline template	Anna Old, Stem Cell Transplant Coordinator
01/03/2023	V3.0	Reviewed and inserted into new Trust Guideline template	Anna Old, Stem Cell Transplant Coordinator

Appendix 2. Equality Impact Assessment

Section 1: Equality Impact Assessment (EIA) Form

The EIA process allows the Trust to identify where a policy or service may have a negative impact on an individual or particular group of people.

For guidance please refer to the Equality Impact Assessment Policy (available from the document library) or contact the Equality, Diversity and Inclusion Team rcht.inclusion@nhs.net

Information Category	Detailed Information
Name of the strategy / policy / proposal / service function to be assessed:	Administration of Nebulised Pentamidine Clinical Guideline V3.0
Directorate and service area:	General Surgery and Cancer Care Group, Haematology
Is this a new or existing Policy?	Existing
Name of individual completing EIA (Should be completed by an individual with a good understanding of the Service/Policy):	Anna Old – Stem Cell Transplant Coordinator
Contact details:	01872 253224

Information Category	Detailed Information
1. **Policy Aim - Who is the Policy aimed at?** (The Policy is the Strategy, Policy, Proposal or Service Change to be assessed)	Guideline on the administration of nebulized Pentamidine
2. **Policy Objectives**	To ensure safe and effective administration of nebulized Pentamidine
3. **Policy Intended Outcomes**	All staff will administer nebulized Pentamidine safely according to the guideline
4. **How will you measure each outcome?**	Assessment of practice against guideline
5. **Who is intended to benefit from the policy?**	Patients and staff

Information Category	Detailed Information
6a. Who did you consult with? (Please select Yes or No for each category)	• Workforce: Yes • Patients/ visitors: No • Local groups/ system partners: No • External organisations: No • Other: No
6b. Please list the individuals/groups who have been consulted about this policy.	**Please record specific names of individuals/ groups:** Haematology Oncology Specialty Group
6c. What was the outcome of the consultation?	Agreed
6d. Have you used any of the following to assist your assessment?	**National or local statistics, audits, activity reports, process maps, complaints, staff or patient surveys:** No

7. The Impact

Following consultation with key groups, has a negative impact been identified for any protected characteristic? Please note that a rationale is required for each one.

Where a negative impact is identified without rationale, the key groups will need to be consulted again.

Protected Characteristic	(Yes or No)	Rationale
Age	No	
Sex (male or female)	No	
Gender reassignment (Transgender, non-binary, gender fluid etc.)	No	
Race	No	
Disability (e.g. physical or cognitive impairment, mental health, long term conditions etc.)	No	
Religion or belief	No	
Marriage and civil partnership	No	

Protected Characteristic	(Yes or No)	Rationale
Pregnancy and maternity	No	
Sexual orientation (e.g. gay, straight, bisexual, lesbian etc.)	No	

A robust rationale must be in place for all protected characteristics. If a negative impact has been identified, please complete section 2. If no negative impact has been identified and if this is not a major service change, you can end the assessment here.

I am confident that section 2 of this EIA does not need completing as there are no highlighted risks of negative impact occurring because of this policy.

Name of person confirming result of initial impact assessment:

Anna Old – Stem Cell Transplant Coordinator

If a negative impact has been identified above OR this is a major service change, you will need to complete section 2 of the EIA form available here:
Section 2. Full Equality Analysis