The Newcastle upon Tyne Hospitals NHS Foundation Trust

Strong Potassium Solutions – Safe Handling and Storage

Version No: 6
Effective From: 17 December 2018
Expiry Date: 17 December 2020
Date Ratified: 27 November 2018
Ratified By: Clinical Policy Group

1 Introduction

When intravenous potassium is required, standard ready-made potassium containing infusion bags must be used wherever possible.

Strong potassium solutions may only be stocked / used in areas where a genuine need has been identified and approval to stock / use strong potassium solutions has been given by the Medicines Management Governance Committee (see Appendix 1). Only glass ampoules of strong potassium solutions must be used.

2 Scope

This policy applies to all staff involved in the handling of strong potassium solutions.

3 Aims

This policy outlines the safe handling and storage requirements for strong potassium solutions.

4 Duties and Responsibilities

This Policy must be adhered to by all staff employed by the Trust.

5 Definition

Strong potassium solutions include potassium chloride (15%) 20mmol in 10ml ampoules and potassium chloride 25mmol in 50ml.

6 Requisition, Supply, Receipt and Administration

Clinical areas authorised to stock strong potassium solutions must order supplies using a potassium chloride 15% requisition book. There are two types of potassium chloride 15% requisition book:

(a) Potassium Chloride 15% Injection Requisition Book
   This book is used in areas that use strong potassium solutions frequently and accurate administration records are kept at ward level (usually intensive care areas). Requisition, supply and receipt details are recorded using this book.
(b) Potassium Chloride 15% Injection Requisition and Administration Record Form

This book is used in areas that have obtained approval to stock strong potassium solutions however, use may be infrequent. Requisition, supply, receipt and administration details are recorded using this book.

If a strong potassium solution is required for a clinical area that does not have approval to stock it, the pharmacy department MUST be contacted and the need for strong potassium discussed. If the pharmacy department is closed the Emergency Duty pharmacist MUST be contacted via the Patient Services Coordinator. In almost all cases, READY MADE SOLUTIONS can be used. On the very rare occasion that a strong potassium solution is needed for a clinical area that does not have approval to stock it, the required solution must be prepared in the nearest clinical area that stocks strong potassium ampoules. A registered nurse from the requesting ward must take the required infusion bag to the area providing potassium and the potassium solution must be prepared in the presence of a second registered nurse (normally one from the supplying ward and one from the receiving ward). A record of the registered nurses responsible for the preparation of the product and the details of the requesting ward must be recorded in the potassium record book of the supplying ward. Potassium ampoules must not be taken from the supplying ward under any circumstances.

Two practitioners must always check for correct product, dosage, dilution, mixing and labelling during the preparation of and again prior to the administration of a solution prepared from a strong potassium solution (the two practitioners responsible for the preparation may be different from the two practitioners responsible for the administration if the solution has been prepared for a clinical area that does not have approval to stock potassium ampoules – in this case one of the practitioners responsible for the preparation must also be responsible for the administration).

7 Storage

Strong potassium solutions MUST be stored in a separate locked cupboard (e.g. controlled drugs cupboard) away from common diluting solutions such as sodium chloride (normal saline).

If a clinical area needs to stock more than one type of strong potassium solution (approval required from pharmacy) they must be stored in separate locked cupboard.

8 Training

The person with responsibility for the management of the ward or department has responsibility to ensure staff are adequately trained and are able to comply with this Policy.
9 Equality and diversity

The Trust is committed to ensuring that, as far as is reasonably practicable, the way we provide services to the public and the way we treat our staff reflects their individual needs and does not discriminate against individuals or groups on any grounds. This document has been appropriately assessed.

10 Monitoring compliance

<table>
<thead>
<tr>
<th>Standard / process / issue</th>
<th>Monitoring and audit</th>
<th>By</th>
<th>Committee</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit storage on wards authorised to store strong potassium solutions.</td>
<td>Pharmacy</td>
<td>Audit data will be reported to the Medicines Management Committee by exception</td>
<td>Annual</td>
<td></td>
</tr>
<tr>
<td>Use the Pharmacy Computer system to verify that only authorised wards have received a strong potassium solution.</td>
<td>Pharmacy</td>
<td>Audit data will be reported to the Medicines Management Committee by exception</td>
<td>Annual</td>
<td></td>
</tr>
</tbody>
</table>

11 Consultation and Review

Consultation and review included senior nursing and pharmacy staff and was ratified by the Medicines Management Committee.

12 Implementation (including raising awareness)

Communicated through the Drug and Therapeutics Panel

13 References

NPSA Patient Safety Alert 2002

14 Associated documentation

- Guidelines for the safe use of intravenous infusions of potassium chloride in GNCH
- Intravenous Potassium administration – general adult wards
- Potassium prescription protocol for FRH PICU and GNCH PICU
Appendix 1

Clinical areas Authorised to Stock Strong Potassium Solutions

Royal Victoria Infirmary

<table>
<thead>
<tr>
<th>Small Requisition Book (no need to record in CD register)</th>
<th>Large Requisition &amp; Administration Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 - PICU</td>
<td>Fetal Medicine</td>
</tr>
<tr>
<td>18 – ITU</td>
<td>(Ward 1A)*</td>
</tr>
<tr>
<td>35 - SCBU</td>
<td>(Ward 3)* - see note below</td>
</tr>
<tr>
<td>38 - ITU</td>
<td>(Ward 4)* - see note below</td>
</tr>
<tr>
<td>HDU</td>
<td>18 – HDU</td>
</tr>
<tr>
<td></td>
<td>Emergency Department (A&amp;E)</td>
</tr>
<tr>
<td></td>
<td>50 - CCU</td>
</tr>
<tr>
<td></td>
<td>General Theatres</td>
</tr>
</tbody>
</table>

Freeman Hospital

<table>
<thead>
<tr>
<th>Small Requisition Book (no need to record in CD register)</th>
<th>Large Requisition &amp; Administration Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>37 - Critical Care</td>
<td>Cardio Theatres</td>
</tr>
<tr>
<td>28 - PICU</td>
<td>General Theatres</td>
</tr>
<tr>
<td>26 - Cardio ITU</td>
<td>12 - HDU</td>
</tr>
<tr>
<td>25A recovery – Cardio HDU</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>25a</td>
</tr>
<tr>
<td></td>
<td>24a</td>
</tr>
<tr>
<td></td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>38</td>
</tr>
</tbody>
</table>

*(15% ampoules NOT supplied – order book used to supply 25mmol in 50mL)*
The Newcastle upon Tyne Hospitals NHS Foundation Trust

Equality Analysis Form A

This form must be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval.

PART 1

1. Assessment Date: 10.10.18

2. Name of policy / strategy / service:
   Strong Potassium Solutions

3. Name and designation of Author:
   Steven Brice, Assistant Director of Pharmacy

4. Names & designations of those involved in the impact analysis screening process:
   Steven Brice, Assistant Director of Pharmacy

5. Is this a:
   Policy x Strategy [ ] Service [ ]
   Is this:
   New [ ] Revised x
   Who is affected:
   Employees x Service Users x Wider Community [ ]

6. What are the main aims, objectives of the policy, strategy, or service and the intended outcomes? (These can be cut and pasted from your policy)
   This policy aims to ensure that strong potassium solutions are handled and stored safely in authorised areas only.

7. Does this policy, strategy, or service have any equality implications? Yes [ ] No x
   If No, state reasons and the information used to make this decision, please refer to paragraph 2.3 of the Equality Analysis Guidance before providing reasons:
   This Policy states what is expected of all Trust staff involved in the handling of strong potassium solutions.
8. Summary of evidence related to protected characteristics

<table>
<thead>
<tr>
<th>Protected Characteristic</th>
<th>Evidence, i.e. What evidence do you have that the Trust is meeting the needs of people in various protected Groups</th>
<th>Does evidence/engagement highlight areas of direct or indirect discrimination? If yes describe steps to be taken to address (by whom, completion date and review date)</th>
<th>Does the evidence highlight any areas to advance opportunities or foster good relations. If yes what steps will be taken? (by whom, completion date and review date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race / Ethnic origin (including gypsies and travellers)</td>
<td>Staff are expected to comply with policy irrespective of their race / ethnic origin.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sex (male/ female)</td>
<td>Staff are expected to comply with policy irrespective of their sex.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Religion and Belief</td>
<td>Staff are expected to comply with policy irrespective of their religion and belief.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sexual orientation including lesbian, gay and bisexual people</td>
<td>Staff are expected to comply with policy irrespective of their sexual orientation.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Age</td>
<td>Staff are expected to comply with policy irrespective of their age.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Disability – learning difficulties, physical disability, sensory impairment and mental health. Consider the needs of carers in this section</td>
<td>Staff with physical disabilities will be expected to comply with policy.</td>
<td>Staff with learning difficulties, sensory impairment and mental health may be excluded from the policy; this is on the grounds of safety and security.</td>
<td>No</td>
</tr>
<tr>
<td>Gender Re-assignment</td>
<td>Staff who have had gender re-assignment are expected to comply with policy.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Marriage and Civil Partnership</td>
<td>Staff are expected to comply with policy whether they are married, in a civil partnership or single.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Maternity / Pregnancy</td>
<td>Staff are expected to comply with policy when pregnant.</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

9. Are there any gaps in the evidence outlined above? If ‘yes’ how will these be rectified?

No
10. Engagement has taken place with people who have protected characteristics and will continue through the Equality Delivery System and the Equality Diversity and Human Rights Group. Please note you may require further engagement in respect of any significant changes to policies, new developments and or changes to service delivery. In such circumstances please contact the Equality and Diversity Lead or the Involvement and Equalities Officer.

Do you require further engagement?  Yes [ ] No [x]

11. Could the policy, strategy or service have a negative impact on human rights? (E.g. the right to respect for private and family life, the right to a fair hearing and the right to education?)

No.

PART 2

Name:  
Steven Brice

Date of completion:  
10.10.18

(If any reader of this procedural document identifies a potential discriminatory impact that has not been identified, please refer to the Policy Author identified above, together with any suggestions for action required to avoid/reduce the impact.)