Handling and Supply of Concentrated Potassium-Containing Solutions Procedure

1. Guiding Principles

Use of concentrated potassium-containing solutions across the WA Country Health Service (WACHS) South West is conducted in accordance with Operational Directive OD 0444/13 Policy for Intravenous Potassium Chloride. The Operational Directive's purpose is to enhance the safety of prescribing, administration, supply and storage of intravenous potassium chloride.

This procedure limits the availability of concentrated-containing potassium solutions, and provides guidance to accessing these, especially outside of pharmacy opening hours.

2. Procedure

Standard premixed (diluted) bags containing potassium chloride are to be utilised in preference to preparing non-standard solutions in all areas.

Concentrated potassium-containing solutions (potassium chloride ampoules, potassium dihydrogen phosphate ampoules, and potassium chloride 40mmol/100mL bags) are only imprested for the Intensive Care Unit (ICU) at the Bunbury Hospital. Concentrated potassium-containing solutions are to be stored only in a locked storage location; the key to the storage locations is to remain in the possession of a Registered Nurse at all times.

ICU stock is **not** to be lent to, or borrowed by any other area.

Prescribing of non-standard potassium solutions must be approved by the consultant / Head of Department. The name of the Consultant must be recorded on the intravenous fluid order chart.

Concentrated potassium-containing solutions for non-ICU patients are to be sourced from Pharmacy. These are to be provided on an individual patient basis upon receipt of an IV infusion order, and unused ampoules are to be returned directly to the pharmacy immediately therapy has ceased.

Details for each issue of concentrated potassium-containing solutions (potassium chloride ampoules, potassium dihydrogen phosphate, and 40mmol/100mL bags) are to be recorded in the Concentrated Potassium Containing Products Tracking Sheets (File). This is to be kept with the concentrated potassium-containing products in the pharmacy. Details to be recorded include date and time, ward, patient's name and URMN, quantity issued, dose prescribed, name and signature of person issuing the supply (pharmacy staff or After Hours Hospital Coordinator), and approving consultant / Head of Department as documented on the order.

3. Definitions

Concentrated potassium-containing solutions	Ampoules or vials containing concentrated potassium solutions, including potassium chloride 10mmol in 10mL ampoules and potassium dihydrogen phosphate 10mmol in 10mL vials and bags containing potassium chloride 40mmol in 100mL of sodium chloride 0.9%
Potassium 40mmol in sodium chloride 0.9% bags (100ml)	Commercially-prepared bags containing 40mmol of potassium chloride in 100mL sodium chloride 0.9%.
Standard premixed (diluted) bags containing potassium chloride	Commercially-prepared bags containing potassium chloride at concentrations no greater than 1mmol of potassium in 10mL. Available in various solutions (including sodium chloride, glucose and Hartmans solution)
Pharmacy	WACHS South West Pharmacy Department located at Bunbury Hospital
Pharmacy opening hours	Monday to Friday 8am to 4:30pm (excluding public holidays)

4. Roles and Responsibilities

During pharmacy hours, pharmacy staff are responsible for the distribution of concentrated potassium solutions. Imprest stock is to be maintained for the ICU at Bunbury Hospital only. All issues of stock are to be recorded within the Concentrated Potassium Containing Products Tracking Sheets (file).

Outside of pharmacy hours, the After Hours Hospital Coordinator is responsible for distribution of concentrated potassium containing products, after confirmation that a premixed solution is not appropriate and that the order is in accordance with OD 0444/13. All issues of stock are to be recorded within the Concentrated Potassium Containing Products Tracking Sheets (file) in addition to standard after hours recording requirements.

5. Compliance

Depending on the circumstances, non-compliance with this procedure may constitute a breach of employment or contractual obligations, misconduct (under the Department of Health *Misconduct and Discipline Policy*), sexual harassment, discrimination, or some other contravention of the law.

Those who fail to comply with this procedure may face disciplinary action and, in serious cases, termination of their employment or engagement.

6. Evaluation

Monitoring of compliance with this document is to be carried out using the following means / tools:

- The number of clinical incidents relating to intravenous potassium – target zero
- Annual audit of potassium storage with a target of 100% compliance with the current Operational Directive for handling of concentrated potassium solutions.

7. Standards

National Safety and Quality Health Care Standards

4.1.1, 4.1.2, 4.2.2, 4.3.3, 4.4.1, 4.4.2, 4.5.2, 4.10.1, 4.10.2, 4.10.6, 4.11.1, 4.11.2

8. References

Department of Health Operational Directive OD 0444/13 Policy for Intravenous Potassium Chloride

WACHS Specialised Medication – Phosphate Guideline

9. Appendices

Concentrated Potassium-Containing Products Tracking Sheet.

10. Related Policies

Department of Health Operational Directive OD 0444/13 Policy for Intravenous Potassium Chloride

This document can be made available in alternative formats on request for a person with a disability

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