# **Hemodialysis: Adjustment of Potassium Bath**

# **Site Applicability**

All Hemodialysis Units (SPH In-center, and Community Dialysis Units)

#### **Practice Level**

Registered Nurses and Licensed Practical Nurses who have completed required education to provide hemodialysis care for patients at Providence Health Care.

# Requirements

A prescriber's order (pre-printed or electronic) is required to utilize the potassium protocol for chronic hemodialysis outpatients.

# **Algorithms**

Guideline for Management of Potassium Bloodwork for hemodialysis patients (See Appendix A)

#### **Need to Know**

- 1. This potassium protocol can only be applied to patients who are chronic hemodialysis outpatients.
- 2. Nurses will contact a provider for all inpatient potassium results to seek direction.

# **Equipment and Supplies**

- 1. Potassium spiking solutions/powders
- 2. Potassium dialysate bath solutions

# **Protocol**

#### **Assessment**

- 1. Obtain the potassium result from the electronic health record.
- 2. Review the result and determine if it within the range of the algorithm.
- 3. Assess the patient for any signs and symptoms of hypokalemia or hyperkalemia.

This material has been prepared solely for use at Providence Health Care (PHC), PHC accept no responsibility for use of this material by any person or organization not associated with PHC, PHSA and VCH. A printed copy of this document may not reflect the current electronic version.

Effective date: 14/FEB/2023 Page 1 of 4

#### Interventions

- 1. Change the potassium if required as per the algorithm (see Appendix A)
- 2. Notify the prescriber of the potassium bath change via the message center as per algorithm
- 3. If the potassium result is outside of the range in the algorithm, contact the prescriber for direction.
- 4. Consult dietitian as per algorithm.

### **Documentation**

- 1. Document dietitian was notified, if applicable
- 2. Document in team communication, potassium bath was changed, nurse to follow-up in subsequent treatments.
- 3. Document the potassium result in a nursing narrative/progress note, and whether it was within the range of algorithm or not.
- 4. Document the change in potassium bath if adjusted in accordance with the algorithm. (e. g. changed from K2 to K3 bath).
- 5. Document direction received from prescriber when result is outside the range.

# **Patient and Family Education**

- 1. Provide patient, family, care facility with information on the recommended type and amount of food to maintain potassium within range as a chronic hemodialysis patient.
- 2. Provide patient, family with explanation of about why potassium bath has changed for their dialysis treatment.

#### **Related Documents**

- 1. B-00-11-10024 Telephone and Verbal Orders
- 2. <u>BCD-11-11-40001</u> Nurse Independent Activities (NIA) and Nurse-Initiated Protocols (NIP)

#### References

- 1. Clase, C. & et al. (2020). Potassium homeostasis and management of dyskalemia in kidney disease: conclusions from a kidney disease: Improving Global Outcomes (KDIGO) Controversies conference.
  - Kidney International (2020) Volume: 97 Issue 1 ISSN: 1523-1755.
- Mount, D., Sterns, R. & Forman, J. (2022). Literature review: Treatment and prevention of hyperkalemia in adults. UpToDate <sup>®</sup>. Retrieved on November 15, 2022 from https://www.uptodate.com
- 3. Pun, P.H., & Middleton J.P. (2017). Dialysate potassium, dialysate magnesium, and hemodialysis risk. Journal of the American Society of Nephrology, 28(12), 3341-3451).

This material has been prepared solely for use at Providence Health Care (PHC), PHC accept no responsibility for use of this material by any person or organization not associated with PHC, PHSA and VCH. A printed copy of this document may not reflect the current electronic version.

Effective date: 14/FEB/2023 Page 2 of 4



# **Developed By:**

PHC Hemodialysis Program

# **Persons and Groups Consulted**

**Renal Clinical Practice Group** 

First Released Date:	13-SEP-2021
Posted Date:	14-FEB-2023
Last Revised:	14-FEB-2023
Last Reviewed:	14-FEB-2023
Approved By:	PHC
(committee or position)	Professional Practice Standards PHC Renal Clinical Practice Group
Owners:	PHC
(optional)	Renal Program

Effective date: 14/FEB/2023 Page 3 of 4



# Appendix A: Guideline for Management of Potassium Bloodwork for Hemodialysis Patients

#### Guideline for Management of Potassium Bloodwork for Hemodialysis Patients

For acute or admitted chronic patients, follow inpatient orders

This is a guideline and does not supersede clinical judgement or communication between health professionals

#### Start with K2 unless otherwise ordered by MD Potassium Potassium **Potassium** Potassium 3.4 mmol/L or less 3.5 to 3.9 mmol/L 4.0 to 5.0 mmol/L 5.1 mmol/L or greater Change to No Change to K2 bath Change Change K3 bath unless unless on to K4 bath in K bath K2 or lower on K3 or higher 1. For in-centre between 1. For In-centre, message MD 1. For in-centre, call MD if K+ greater than Remain on 0800 and 1700 call MD. via HD provider pool 6.5 mmol/L; except for Nocturnal patients, Split bath if After 1700 send a 2. For CDU, message MD change to K2 bath and leave message for already followed by a call during message to HD provider MD via HD provider pool to follow-up next established on pool. regular hours this regimen 2. For CDU, message MD followed by a call 2. For CDU, message MD 3. Consult dietitian only if K followed by a call bath is changed (Call and/or during regular hours if bath requires place order consult in Cerner during regular hours changing or if result is greater than 3. Consult dietitian (call per unit protocol) 6.5 mmol/L and/or place order 3. Consult dietitian if K+ greater than Repeat K+ in one week if bath consult in Cerner per 5.5 mmol/L (call and/or place order consult change has occurred, or as unit protocol) in Cerner per unit protocol) otherwise indicated by provider Repeat K+ in one week if bath change has Revised: February 2023 occurred, or as otherwise indicated by provider

This material has been prepared solely for use at Providence Health Care (PHC), PHC accept no responsibility for use of this material by any person or organization not associated with PHC, PHSA and VCH. A printed copy of this document may not reflect the current electronic version.

Effective date: 14/FEB/2023 Page 4 of 4