

CARE4 MODULE NAME: PCS (Patient Care Systems)

Protocols in Expanse

Overview

This document provides instructions on how Protocols are viewed using the PCS Module.

How Protocols are Ordered

Protocols will be ordered by MD through an Order Set or as an individual order or by a Clinician through a Medical Directive.

The Protocol may have choices which dictate how the Protocol is followed. And what medications need to go on the eMAR

View PCS Protocol - Electrolyte Replacement Protocol

This table explains the difference between the options that the electrolyte replacement protocol includes. For the options that are selected while ordering, the right medications will be added on the eMAR.

Medication-specific instructions in the table below are accessible on the eMAR. ****THIS PROTOCOL MUST BE ORDERED (EITHER BY A PHYSICIAN OR MEDICAL DIRECTIVE) PRIOR TO UTILIZATION****

Magnesium Replacement
Instructions for nurses depending on the selected replacement regimen:

- Follow instructions to administer the right combination of medications
- Replace magnesium based on labs as listed below
- Replace magnesium at the same time as or before potassium
- Nurse to collect bloodwork (as outlined) for follow up

Standard Replacement (target: Greater than 0.5mmol/L)	Magnesium High Target (target: Greater than 1.0mmol/L)
<p>For serum magnesium 0.5-0.59 mmol/L:</p> <ul style="list-style-type: none"> Give 2gm IV x 1. Infuse over 2 hours Repeat serum level in 24 hrs 	<p>For serum magnesium 0.7-0.99 mmol/L:</p> <ul style="list-style-type: none"> Give 2gm IV x 1. Infuse over 2 hour Repeat serum level in 24 hours OR with next bloodwork
<p>For serum magnesium 0.3-0.49 mmol/L:</p> <ul style="list-style-type: none"> Give 2gm IV x 2 (TOTAL 4gm) Infuse each dose over 2 hours Repeat serum level in 12 hours 	<p>For serum magnesium 0.6-0.69 mmol/L:</p> <ul style="list-style-type: none"> Give 2gm IV x 2 (TOTAL 4gm); Infuse each dose over 2 hours Repeat serum level in 24 hours OR with next bloodwork
<p>For serum magnesium less than 0.3 mmol/L:</p> <ul style="list-style-type: none"> Give 2gm IV x 2 (TOTAL 4gm) Infuse each dose over 2hrs Notify MRP Repeat serum level in 12 hours or as per MRP 	<p>For serum magnesium 0.5-0.59 mmol/L:</p> <ul style="list-style-type: none"> Give 2gm IV x 2 (TOTAL 4gm); Infuse each dose over 2 hours Repeat serum level in 12 hrs

If any medications are part of the Protocol, they would be triggered by the Protocol order.

How You Can View Details Related to How to Follow the Protocol

Care Item	Last Done	Status/ Due	NOW
ORD Protocol CC Elect. Replacement As Per Pr...	As Per Pr...	P	

The order details can be viewed by clicking on the "O" on the worklist

Order	Protocol Crit. Care Elect. Replacement As Per Protocol
Order Set	magnesium replacement-Standard
Ordering Provider	Cox,Denise, MD
Source	Ordered By Provider
Order	24/08/2021 22:13
Start	24/08/2021 22:14
Status	Active
Protocol	P
Date	24/08/2021 22:14
Freq	As Per Protocol
Select AT LEAST One	
Which target are you aiming for your magnesium replacement?	Magnesium Standard
Which phosphate replacement protocol would you like?	
Which target are you aiming for your potassium replacement?	
Which calcium replacement protocol does your site utilize?	

How You Can View Overarching Protocol

The Protocol can be always be viewed by clicking on the "P".

From an Order

CRIT Electrolyte Replacement
Medications
Protocol Crit. Care Elect. Replacement
As Per Protocol P

From the Worklist

Care Item	Last Done	Status/ Due	NOW
ORD Protocol CC Elect. Replacement As Per Pr...	As Per Pr...	P	

How You Can View the Medication Protocol

From the eMAR

Start	Medication (Route)	Time	Mon 23 Aug	TODAY Tue 24 Aug
24/08/2021 22:13	magnesium sulfate premix 2 g In 54 ml @ 27 mls/hr IV PROTOCOL PRN Current Rate: 27 mls/hr Bag Volume: 54 mls Duration: 2 hr Trade: magnesium sulfate ; MgSO4 Rx#: U00053055 P			
Unverified UnAcknowledged	Label Comments: *For Critical Electrolyte Replacement Protocol* *Select one magnesium order only* PRN Reason: Hypomagnesemia (low magnesium)			
		PRN		
		Last Admin		

The protocol on the eMAR might repeat key information from the overarching protocol related to that specific medication's administration. That way, you can confirm that you are giving the right med according to the overarching protocol without navigating back and forth.

View PCS Protocol - Electrolyte Replacement Protocol

This table explains the difference between the options that the electrolyte replacement protocol includes. For the options that are selected while ordering, the right medications will be added on the eMAR.

Medication-specific instructions in the table below are accessible on the eMAR.
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Magnesium Replacement

Instructions for nurses depending on the selected replacement regimen:

- Follow instructions to administer the right combination of medications
- Replace magnesium based on labs as listed below
- Replace magnesium at the same time as or before potassium
- Nurse to collect bloodwork (as outlined) for follow up

Standard Replacement Regimen: Greater than 0.59mmol/L

For serum magnesium 0.5-0.59 mmol/L:

- Give 2gm IV x 1. Infuse over 2 hours
- Repeat serum level in 24 hrs

For serum magnesium 0.3-0.49 mmol/L:

- Give 2gm IV x 2 (Total 4gm) Infuse each dose over 2 hours
- Repeat serum level in 12 hours

For serum magnesium less than 0.3 mmol/L:

- Give 2gm IV x 2 (TOTAL 4gm) Infuse each dose over 2hrs
- Notify MRP
- Repeat serum level in 12 hours or as per MRP

Magnesium High Target (target: Greater than 1.0mmol/L)

For serum magnesium 0.7-0.99 mmol/L:

- Give 2gm IV x 1, Infuse over 2 hour
- Repeat serum level in 24 hours OR with next bloodwork

For serum magnesium 0.6-0.69 mmol/L:

- Give 2gm IV x 2 (TOTAL 4gm); Infuse each dose over 2 hours
- Repeat serum level in 24 hours OR with next bloodwork

For serum magnesium 0.5-0.59 mmol/L:

- Give 2gm IV x 2 (TOTAL 4gm); Infuse each dose over 2 hours
- Repeat serum level in 12 hrs

The Protocol order found on the Worklist (can be viewed from the PCS Worklist/Order) gives an overarching view of the various components of the protocol including medications and other nursing actions.

The portion of the protocol pertaining to the actual medication ordered will be viewed from the eMAR

Protocol

magnesium replacement (Standard)

Condition	Dose/Route	Instruction
Magnesium goal over 0.59 mmol/L		
For serum magnesium 0.5-0.59 mmol/L:	Give 2 g IV x 1 Infuse over 2 hours	Repeat serum level in 24 hours
For serum magnesium 0.3-0.49 mmol/L:	Give 2 g IV x 2 (Total 4 g) Infuse each dose over 2 hours	Repeat serum level in 12 hours
For serum magnesium less than 0.3 mmol/L:	Give 2 g IV x 2 (TOTAL 4 g) Infuse each dose over 2 hours	Notify MRP Repeat serum level in 12 hours or as per MRP

Protocols Containing Several Medication Orders

View PCS Protocol - Hypoglycemia Management

Hypoglycemia Protocol

THIS PROTOCOL MUST BE ORDERED (EITHER BY A PHYSICIAN OR MEDICAL DIRECTIVE) PRIOR TO UTILIZATION

If Patient is CONSCIOUS and NOT NPO:

Mild-Moderate Hypoglycemia: Blood Glucose 3.0-3.9 mmol/L

Administer the following:

- dextrose 15 grams (60mL) or 1 bottle of carbohydrate (CHO) glucose drink (Ex: Dex4 Liquidblast) orally as needed

Nursing Interventions

- Treat immediately after point of care testing (POCT)
- Repeat glucometer reading 15 minutes after administering treatment
- If blood glucose less than 4 mmol/L, may repeat x 1 dose (max 2 doses)
- Notify Provider if blood glucose remains less than 4 mmol/L after second dose
- Repeat glucometer reading every 15 minutes until blood glucose greater than 4 mmol/L without symptoms.

Severe Hypoglycemia: Blood glucose 2.9 mmol/L or lower

Administer the following:

- dextrose 20 grams (5mL or 1 x 60mL bottle plus 15 mL from second bottle) of carbohydrate (CHO) glucose drink (Ex: Dex4 Liquidblast) orally as needed

Nursing Interventions

- Treat immediately after point of care testing (POCT)
- Repeat glucometer reading 15 minutes after administering treatment
- If blood glucose less than 4 mmol/L, may repeat x 1 dose (max 2 doses)
- Notify Provider if blood glucose remains less than 4 mmol/L after second dose
- Repeat glucometer reading every 15 minutes until blood glucose greater than 4 mmol/L without symptoms.

Decreased LOC (Level of Consciousness), Swallowing Difficulties or NPO status

Mild-Moderate Hypoglycemia: Blood Glucose Level 3.0-3.9 mmol/L

Administer one of the following:

- Option 1: (IV insulin)
Dextrose 50% in Water, 12.5 g (25mL) intravenous push, as needed

Some Protocols will contain several meds that can be administered if certain conditions are met. All the meds will appear on the eMAR regardless if used or not. You would only document the meds that were given if the protocol is actioned.

Start	Stop	Medication (Route)
24/08/2021 22:30		dextrose 15 g PO PROTOCOL PRN Trade: Dex4 Fast Acting Glucose Liquid Rx#: U00053056 Unverified Acknowledged Give: 59 ml (15 g/59 ml Oral.Liquid) Label Comments: For symptomatic hypoglycemia where blood glucose is 3.0 - 3.9 mmol/L for CONSCIOUS patients who are NOT NPO PRN Reason: Blood sugar low/Hypoglycemia
24/08/2021 22:30		dextrose 20 g PO PROTOCOL PRN Trade: Dex4 Fast Acting Glucose Liquid Rx#: U00053057 Unverified Acknowledged Give: 78.6666 ml (15 g/59 ml Oral.Liquid) Label Comments: For symptomatic hypoglycemia where blood glucose is equal to or less than 2.9 mmol/L for CONSCIOUS patients who are NOT NPO PRN Reason: Blood sugar low/Hypoglycemia
24/08/2021 22:30		dextrose 50% in water 12.5 g IV PROTOCOL PRN Trade: D50w Rx#: U00053060 Unverified Acknowledged Give: 25 ml (12.5 g total) Label Comments: For symptomatic hypoglycemia where blood glucose is 3.0 - 3.9 mmol/L for patient NOT able to take oral liquids/solids due to swallowing difficulties or a decreased level of consciousness or identified as (NPO) PRN Reason: Blood sugar low/Hypoglycemia

Where You Can Document Actions Performed For the Protocols

All meds will be documented on the eMAR including IV fluids.
Enter Orders for any LAB required.

Any interventions required for documenting that aren't already part of the SOC, might appear on worklist after Protocol is ordered

Acute Ischemic Stroke & TIA Admission Protocol
THIS PROTOCOL MUST BE ORDERED (EITHER BY A PHYSICIAN OR MEDICAL DIRECTIVE) PRIOR TO UTILIZATION

- This protocol will be used by Medicine and/or Stroke Nurses to accomplish the safe assessment and monitoring of all patients acute ischemic stroke & transient ischemic attack (TIA) who did not receive thrombolysis and/or endovascular thrombectomy back to the hospital and are past their hyperacute phase.
- This protocol is in accordance with Canadian Stroke Best Practice Recommendations

Monitoring & Assessments

- Canadian Neurological Scale (CNS) (for alert, drowsy or aphasic stroke patients)**
- Glasgow Coma Scale (GCS) (for comatose or stuporous patients):**
- Pupillary Assessments**
 - Every 4 hours and PRN x 24 hours THEN
 - Twice a day and PRN x 48 hours
- Temperature, Heart Rate (HR), Respiratory Rate (RR), Blood Pressure (BP), and SpO2:**
 - Every 4 hours and PRN x 48 hours THEN
 - Twice a day PRN x 28 hours THEN
 - Every shift and PRN until discharge

Care Item	Last Done	Status/Due	Today 16:15	NOW
Ao Bladder Scan	Q6H		-3m	
Ao Canadian Neurological Stroke Scale	Q4HX6,Q12HX4		-3m	
Ao Neurological Assessment (Inc. GCS)	Q4HX6,Q12H		-3m	
Ao Vital Signs	Q4HX12,Q1...		-3m	
To IO Intake and Output Strict	Q8HR		6h	
To ORD Protocol Acute Ischemic Stroke & TIA	As Per Pr...			
To ORD Protocol MED Urinary Retention	As Per Pr...			
Ao TOR-BSST Swallowing Screening®	As Per Pr...			

Click on "O" to see details of order

Order	Canadian Neurological Stroke Scale	Q4HX6,Q12HX4
Order Set	Ischemic Stroke & TIA Adm...	
Ordering Provider	Cox,Denise, MD	
Source	Ordered By Provider	
Order	25/08/2021 16:15	
Start	25/08/2021 16:15	
Status	Active	
Date	25/08/2021 16:15	Freq
		Q4HX6,Q12HX4
Physician Instructions	For alert, drowsy or aphasic stroke patients	