

CPOE/eMAR/BMV Training Document Closed Loop System

Agenda

Section 1: CPOE Overview

Section 2: Order Management

Section 3: eMAR

Section 4: Medication Administration

Section 5: Case Study practice

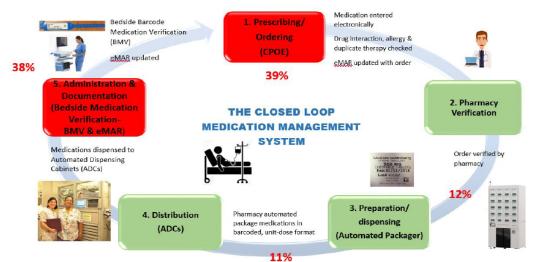


Section 1: CPOE Overview

What is CPOE?

CPOE stands for 'computerized provider order entry'. This means that the provider will directly input orders into the system. It is the first step in the Closed Loop Medication Management System.

What is a Closed Loop Medication Management System?





Section 1: CPOE Overview

Why are we doing it?

• SAFER!! This removes any confusion about orders, allows better tracking of information, and makes workflow more efficient.

Electronic Orders

- Medication
- Non-medication orders

Telephone one time order management

- The expectation is that all orders will be entered by the provider.
- There will be an exception if a provider is driving/not able to be at a computer to enter and in this case a
 one-time order will be given and written as a telephone order. If it is for a medication it will be taken from
 the ADC using override. If it is to be an ongoing order the provider MUST enter it when they have access to a
 computer.



Types of Orders at Bridgepoint

- Care Orders → Examples: vital signs, Daily weights, POCT glucose monitoring
- Medication Orders → This includes all medications that will ordered for your patient and will be reflected on the eMAR

Ways to Receive an Order

- Medical Directive
- Suggest Orders
- Verbal Orders
- Telephone Orders



Changes to Order Process with CPOE

Medical Directive

- At Bridgepoint nursing, Dietitian, SLP have medical directives (meaning they are pre-authorized to enact an order based on clinical judgment)
- Those who have a medical directive will enter the order into Meditech by using NMOF

Examples \rightarrow new C. Diff medical directive

Suggest Orders

• There will be no changes to this process – if the clinician thinks a patient would benefit from a order, they will write the suggestion on the patients chart in the Physicians order sheets, and flag it for the physician to enter into Meditech if they agree

Example → You think your patient would benefit from a Wound Care referral

Verbal Orders

 These should only be accepted in the event that the physician is unable to write or enter an order due to an emergency



Changes to Order Process with CPOE

Telephone Orders

- Telephone orders will only be accepted after business hours (17:00-08:00) when the physician is on-call
- The order can only be for a 1 time event for example → 1 time order of Tylenol 650mg for a new fever Process for telephone orders
 - Nursing will take an order over the phone that is for a single event and write it on the Physicians order sheets
 - If the order is a medication order, they will use the Override function on ADC to pull the medication, then bring the WOW to the patient bedside and scan the patients armband and the medication prior to giving
 - If it is a care order the nurse will enact the order
 - *** if an ongoing order is required (for example "Tylenol q 4 hours until morning") the physician will need to enter the order into Meditech***



Order Entry

Provider enters all orders in Meditech including: Medication, Patient Care, Laboratory, Microbiology, Referral, Consults, Radiology, Electrocardiogram, Electromyogram, Ultrasound, and Diet



New Status Board: Next Scheduled Medication & Next Scheduled Intervention

The Status Board will now have new features to reflect the changes with CPOE.

- There is now "Next Scheduled Medication" which shows the next medication that is due. If the medication is past due, it will turn red. It will not go away until it is signed off. If it is past the time it was due, it will also appear in red.

	A .	Patient Name	Orders		Next Sched Med	Diet Type	Fluid Restriction	Bowel Status	Voiding Status	High Risk for Falls?	
	1	Room-Bed	ed Results		Next Intervention w	Dietary Texture	Eating Ability	Date Last BM	Braden Score	Restraints	
		Precautions	Pain Intensity / 1)		Diet Restriction	Suctioning Type	BM Consistency	Transfer Ability	Behaviour	
,		CPOE,FEMALE	Ack		1130 - INSULIN LISP	Cardiac / Healthy 🕻	Fluid Restriction:120				
		2.117-2			1730 - Protein Suppl	Regular					
	v		2			No Chocolate G					



New Status Board: Next Scheduled Medication & Next Scheduled Intervention

- There is also "Next Scheduled Intervention". This shows the next intervention that is required. Interventions include, weight, blood glucose monitoring, and administering protein supplement. Once you have a new order you will need acknowledge that you have seen the order by opening the "Order" section of the status board. You will know there are new orders when you see "Ack"

*	Patient Name	Orders	Next Sched Med	Diet Type	Fluid Restriction	Bowel Status	Voiding Status	High Risk for Falls?
- ✓	Room-Bed	Results	Next Intervention w	Dietary Texture	Eating Ability	Date Last BM	Braden Score	Restraints
	Precautions	ain Intensity / 10		Diet Restriction	Suctioning Type	BM Consistency	Transfer Ability	Behaviour
	CPOE,FEMALE	Ack	1130 - INSULIN LISP	Cardiac / Healthy 0	Fluid Restriction: 120			
	2.117-2		1730 - Protein Suppl	Regular				
v		2		No Chocolate				



New Status Board: Care Orders

There a few different types of care orders which require different actions including:

- Intervention Care Order
 - This is where the care orders will be linked to an intervention/assessment so you will be able to document →example: daily weights
- ☐ "I Did It" care order
 - Once you have completed the order you will be able sign off what it was done → example: POCT glucose testing
- ☐ FYI Care Order
 - These care orders will <u>not</u> be reflected on the intervention list but they can be found in the Order History section of EMR



New Status Board: How to document interventions with linked documentation

Click on the Intervention and a pop up screen with a snap shot of all the next interventions will come up.

Dietary Texture

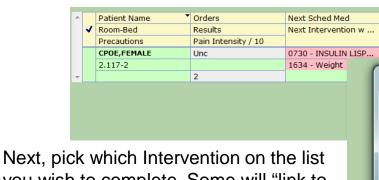
Diet Restriction

Diet Type

Fluid Restriction

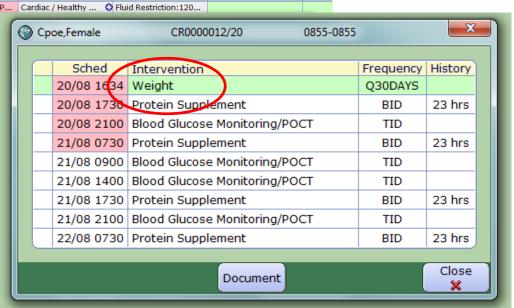
Suctioning Type

Eating Ability



Next, pick which Intervention on the list you wish to complete. Some will "link to intervention" when you need to add additional data (for example daily weight). By clicking on the intervention it will link you directly to the assessment





Bowel Status

Date Last BM

BM Consistency

Voidina

Braden

Transfe

New Status Board: How to document interventions with linked documentation

Intervention that is linked to an assessment

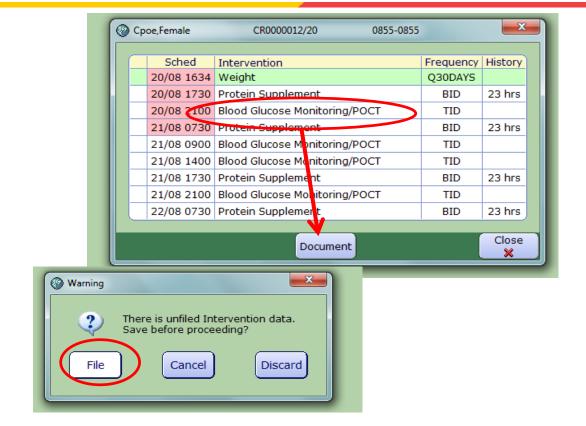
Example -The patient is ordered daily weights

Height			
Height	(cm)		
Height Source	○ Stated (By Patient)○ Stated (By Family)○ Estimated○ Actual		
Weight			
Weight (kg)	(kg)		
Weight Source	O Stated (By Patient) O Stated (By Family) Estimated Actual		
Weight Measurement Method	○ Standing Scale ○ Bed Scale- sling ○ Wheelchair ○ Built in Bedscale ○ Baby Scale		



New Status Board: How to document interventions with the "I Did It" function.

- For blood glucose monitoring and protein supplement, you simply have to use the "I Did It" function without additional documentation.
- Again, pick the right intervention, so in this case, we will pick blood glucose monitoring, press document, and since you don't need to enter additional data you only press "file"

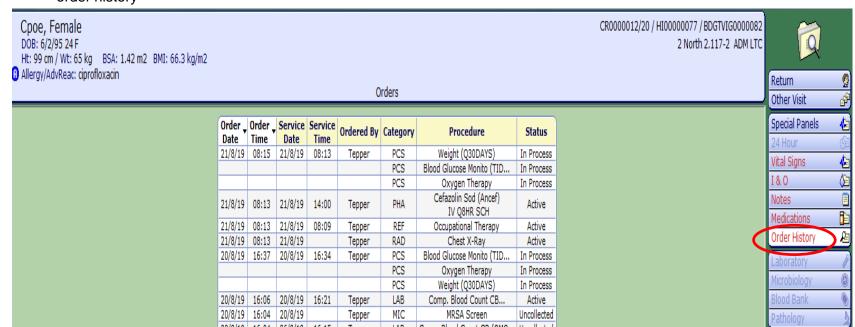




Order Entry: FYI Care Orders

FYI Orders

For example: Oxygen 2L/min via Nasal Prong. Nurses will acknowledge as previously shown and this needs to be transcribed into the patient care plan. These orders do not show on the status board but they are available to be reviewed in "order history"



Navigation

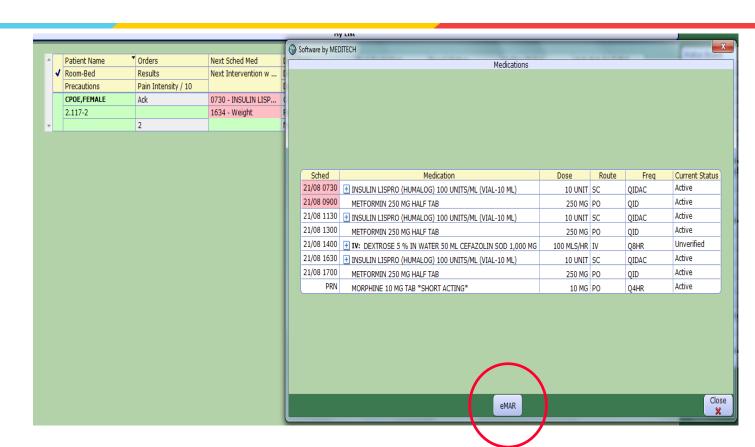
What is eMAR?

eMAR means 'Electronic Medication Administration Record'

Navigating eMAR

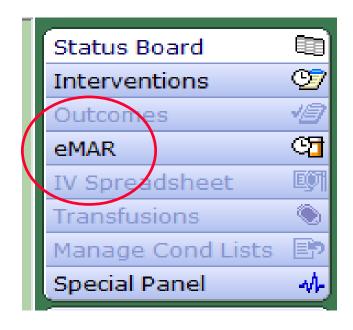
You can access the eMAR From the status board. If you click on "Next Scheduled Medication" it shows you a snapshot of the medications due that day. In this screen, there is a direct button to the full eMAR





Navigation

 You can also access eMAR in the side panel in the PCS





Medication Status and Order Information Headings

•	Start Stop Current Status	Medication	Dose Route Frequency	Next Sched Ack/View Ord Adjustment	History ▲ Monograph Co-sign	Assoc Asmnt Ref Err				
					2000					
	14/08/19 1300	Rx R000001055 METFORMIN 250 MG HALF TAB	250 MG < 1 HALF TAB >	20/08 1700 20/08 2100	0900 26 hrs 250 MG					
	10/02/20 1259	(Glucophage)	PO)					
	Active		QID							
_ Label Comments										
	(WITH FOOD									



Section 3: eMAR Medication Status and Order Information Headings

- Start- start time of the order
- Stop- stop time of the order
- Current Status- The current status will be one of the following: Active, Hold, Future Hold, Pending, Cancelled, Discontinued, Unverified
- **Medication-** The medication cell includes the RX number, medication trade name in BOLD, generic name, medication strength and medication form. The eMAR can hold 40 medications on one page, after that it will have multiple pages.
- Dose- Ordered dose and form of a medication order
- Route- Route of administration
- Frequency- frequency of administration



Section 3: eMAR Medication Status and Order Information Headings

- Next Schedule- This cell will display the next 2 schedule dates and times for administration. If a reassessment is due, "reassess" will appear along with the time the reassessment is due (pain medication for example). Overdue items will display in red in this column per your eMAR time period setting.
- Adjustment: If the frequency for an order was edited by the pharmacist or the physician, "freq/time adj" will show in this column. This is a flagging message so you know a change has been made.
- History: The date and time of the last recorded activity. You can click on this cell to access the Edit eMAR screen



Section 3: eMAR Medication Status and Order Information Headings

- Monograph: This cell will have a right arrow indicator if there is an associated monograph. You are also able to print the monograph.
- **Cosign:** it will show "cosign" if a cosign is needed for a high risk medication such as insulin, or narcotic patch we will go into more detail on the next slide.
- **Assoc:** Medications can have EMR values associated to them so that users can reference clinically relevant information. An arrow will appear if there is associated data relevant to this medication. For example: hold medication if pulse is less than 50
- **Asmnt:** right arrow indicator will appear in this cell if an assessment is attached to this medication order. For example, for injectable medications, patches, PRN pain meds, vaccines.
- Ref Error: there will be an indicator in this cell if a refill rule errors out when the refill list is run



Assessment Heading

Subcutaneous Injection							
Injection Side	○ Left ○ Right						
Injection Location	○ ABD- Upper Quadrant ○ ABD- Lower Quadrant ○ Upper Arm ○ Thigh ○ Buttocks						
Subcutaneous Injection Comment	*Optional*						
Drug Given by IV Route	O Yes						

For example if you have an injectable medication, this screen will pop up for you to fill in, or for a patch, this screen will pop up.



eMAR Sorting Options

- The primary way the eMAR is sorted is with the next scheduled medication showing first (or the most overdue), followed by active medications, followed by discontinued
- If multiple medications are due at the same time, they are sorted by route of administration, with medications of the same route grouped together
- You can also sort by pressing the different heading options



Bedside Medication Verification and eMAR process

What is BMV?

BMV (bedside medication verification) is part of the closed loop medication management system, the last step before the medication reaches the patient.

It involves scanning the patients armband and scanning the medication packages.

If a patient's armband is not able to be scanned, it needs to be replaces before you can administer your medication.

You must scan armband attached to patient. Do not scan loose armbands or armbands attached to the bed



How to administer medications

Step 1: Take the WOWs (which now include the new scanner), your medications, and other supplies you will need for preparing to administer your medications into the patient's room. If on isolation, leave the WOW at the door entrance.

Step 2: Log into Meditech and open the patient's eMAR

Step 3: Scan the barcode on the patients ID band. If the armband you scan does not match the eMAR you have opened, it will say "wrong patient" and close this eMAR.

Step 4: The nurse scans patient's medications. If it is not the right medication it will say "wrong medication"

Step 5: The nurse administers medications

Step 6: The nurse clicks on the save button in eMAR



Types of Medication Administration

Some medications look different to sign off including;

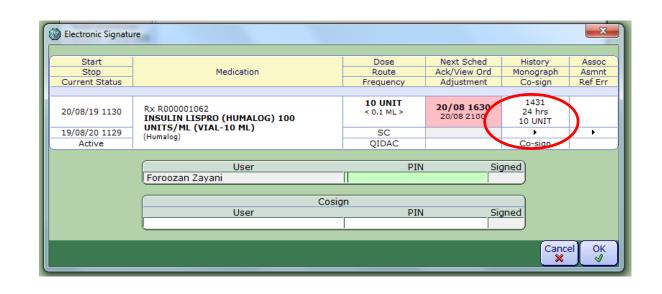
- Medication that require a co-sign (ex. Insulin)
- CADD pump medication
- Controlled patch medication (ex. fentanyl)



Cosigning

When you click on cosign, the person administering and the person cosigning have to enter their pin number.

Please remember- DO NOT LOSE YOU PIN OR FORGET IT.





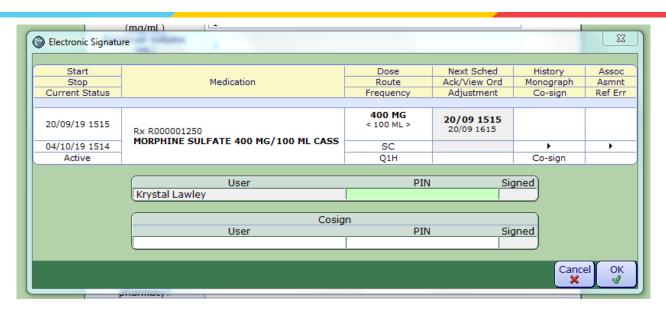
Types of Medication Administration

CADD Pump Recordin Concentration		
(mg/mL)		
Reservoir Volume (mL)		
Continuous Rate (mg/hr)		
Demand/Breakthrough Dose (mg)		
Demand Dose Lockout (minutes)		
Demand Doses Given (total # given)		
Demand Doses Attempted		
Total Demand Given (mg)		
Site Checked		
Pump Cleared	○Yes	
Please indicate the reason why CADD pump was stopped	☐ CADD discontinued ☐ CADD concentration change ☐ CADD pump change ☐ Cassette changed ☐ Battery changed ☐ Line/SC site change ☐ Patient deceased	
Was cassette returned to pharmacy?	○ Yes	
What was reservoir volume when returned to pharmacy? (mL)		

For CADD pumps, you will now complete the CADD Pump Recording sheet in the eMAR (rather than the previous paper sheet)



Types of Medication Administration





Note – it is required to be completed at the bedside with another nurse who will enter their PIN as validation once you have completed the **CADD Pump Recording** screen

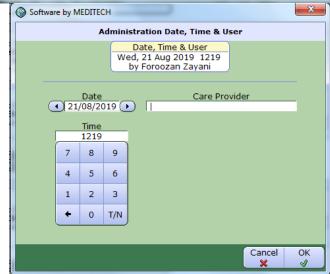
How to administer medications: Manually Administering Medications

In the footer bar of the eMAR page, there is a button called "administer"



- This is used to manually document that you administered the selected medication
- You only use this if: you are unable to scan a medications barcode or if you are signing for another nurse.
- You are then able to add "admin comments" to describe why you are using this function.





How to administer medications: Signing for another nurse?

- As mentioned in the previous slide, you will be able to sign off a medication for another nurse.
- This is used if a nurse forgot to sign off a medication before going home, and now the medication is showing as "over due"
- The process would be: speaking with the nurse to confirm the medication was given. If it was, the nurse can enter the date and time it was giving, and add a comment that you verbally spoke with the nurse to confirm.



How to administer medications: Non administer reasons

If you are not administering a selected medication, you chose "non-admin reasons" in the



You will enter a reason for not administering a medication from the list that will pop up

please note, you will have to do this for all scheduled medications when a patient is on pass

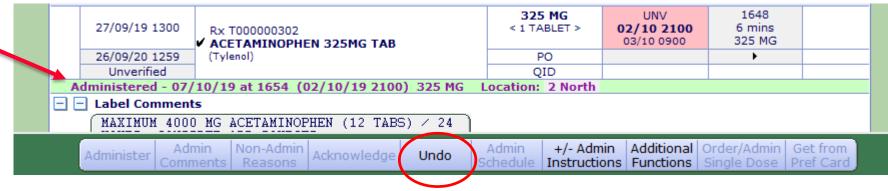


Non-Administration Reason

Downtime - See Paper MAR
Held as per Clinical Judgement
Hold Dose as per Label Comment
Not Given as per MD Order
Nothing by Mouth
Patient Asleep
Patient on Pass/Appointment
Patient Refused

How to administer medications: Undo Function

You are able to "Undo" a scanned medication before saving by clicking on the purple writing before the medication order and selecting "Undo" on the task bar below





How to administer medications: Undo Function

If you scan the medication and save, you are able to undo by selecting the "History" column of the MAR then selecting

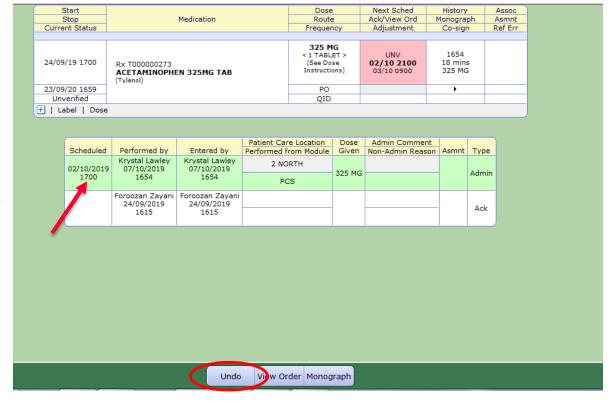
V	Start Stop Current Status	Medication	Dose Route Frequency	Next Sched ▼ Ack/View Ord Adjustment	History Hisnograph Co-sign	Assoc Asmnt Ref Err
	24/09/19 1700	Rx T000000273 ACETAMINOPHEN 325MG TAB (Tylenol)	325 MG < 1 TABLET > (See Dose Instructions)	UNV 02/10 2100 03/10 0900	1654 10 mins 325 MG	
	23/09/20 1659 Unverified		PO QID)	

You will then be brought to another screen where you can select the medication administration event you would like to remove and select "Undo" on the bottom task bar *** Note: you can only "Undo" what you have scanned and save, you can not do it for an event completed by another nurse ***



How to administer medications: Undo Function

You will then be brought to another screen where you can select the medication administration event you would like to remove and select "Undo" on the bottom task bar *** Note: you can only "Undo" what you have scanned and save, you can not do it for an event completed by another nurse ***





How to administer medications: Administration Schedule

Signing off past medications

- In the event that you will need to sign off a medication for another nurse (for example they a nurse has gone home and forgot to sign off the medication but they gave it) by doing the following
 - 1. Select the medication
 - 2. Change the time to when it was given
 - 3. Type the nurses name in the "Care Provider" and select the name
 - 4. Press "OK"



