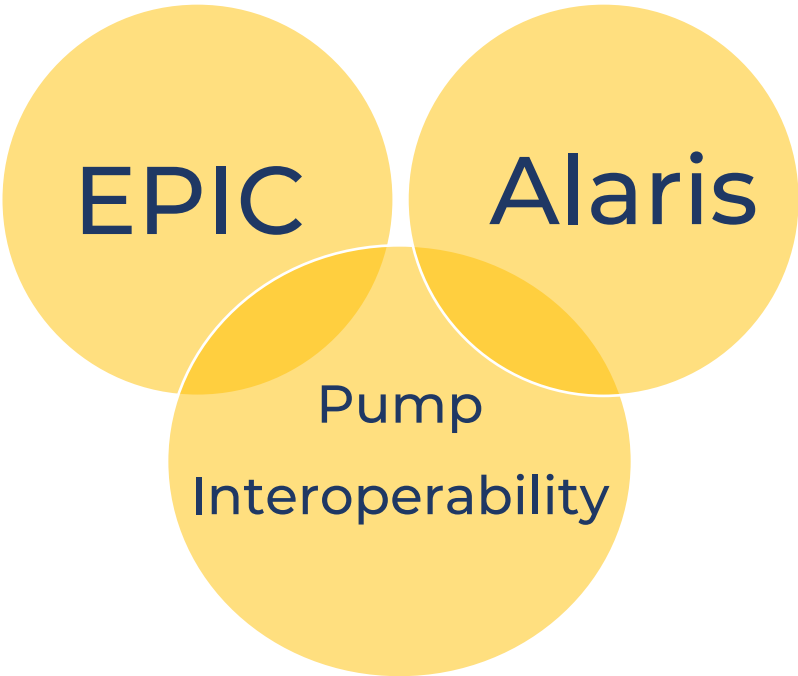
Quick Reference



Version E.4

Ochsner Health

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Glossary of Terms

Associate the pump: Link a specific order to a specific pump channel. This is exclusively a 1:1 connection, and this connection is required for the pump data to pull into Epic. Typically, you will do this by scanning the pump barcode when administering an infusion.

Back associate the pump: Link an order to a pump channel after the pump has already started and is running. For example, emergent situations where you had to manually program the pump, and you go back into Epic later to create the association.

Disassociate the pump: If discontinuing IV fluids or a medication and the channel is no longer needed, then you disassociate the pump channel from the electronic medical record (EMR). This stops the communication between EPIC & the pump.

Infusion Verify: an activity, found in the I&O's flowsheet, that allows you to verify (document) rate changes, stops, and volume directly from the pump into the EMR.

Quick Restart for Alaris Pump: Power the pump down on the channel, using Channel Off, and then touch any other button on the main keypad ("push 5 to stay alive") before 5 seconds and the pump will clear, but not shut off completely (it will remain in an idle state). It will allow you to reprogram from a fresh start without shutting down and booting up again. Very helpful with intermittent IVPBs.

Subsequent Bag: an additional bag of the exact same fluid or medication from a continuous order in Epic that has already had at least one bag hung.

Validating Data: reviewing and accepting data (documenting) from the Infusion Verify activity in Epic. Pump data (i.e., titrations, stops/pauses, volumes) is sent into Infusion Verify, the patient cloud. For data to be saved to the patient record, you must review and accept this information via Infusion Verify to be saved into the patient chart.

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Epic & Alaris Pump Overview

- The purpose of Epic and pump integration is to increase patient safety, decrease pump programming errors, and document true intake volumes and stop times.

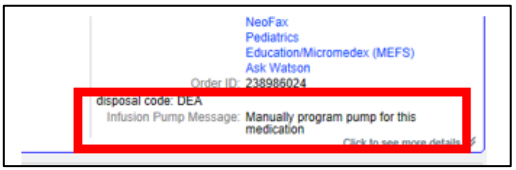
- The nurse is always responsible in verifying the standard medication safety checks.

- There are departments that are out of scope and will not use interoperability.

- There are medications and fluids that are out of scope. These medications will not be charted via interoperability. (out of scope infusion section from TOC)

- Medications delivered on any pump other than the Alaris pump are out of scope.

- Medications that are not to be run with interoperability will have a message on the MAR (shown below). In those cases, EPIC will not prompt for a pump scan. The pump must be manually programmed using Guardrails library.



- Pump interoperability relies on WIFI to send communications.
  - Green light = pump connected to WIFI
  - No green light = pump not connected to WIFI
    - Is it just the pump?
      - Try another pump in the same room
      - Check that “wireless connection” is enabled (options menu)
    - Is it the WIFI?
      - Multiple pumps tried and no WIFI connected

Biomed = device issue

IT = WIFI or Server issue

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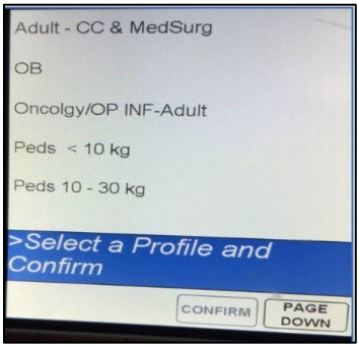
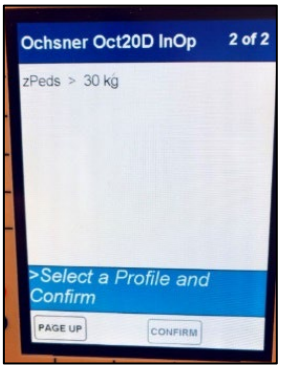
Alaris Pump Infusion—General Information

To use the Alaris pump integration, the following must be true:

- Orders must be in Epic & verified by pharmacy
- Ensure patient's height and weight have been documented.
- The pump must be on the channel select or home screen before sending a new order to the pump.
- The pump must be connected to WIFI

- Make sure you choose the correct profile on the pump, based on the patient you are caring for:
    - Adult – CC & MedSurg
    - OB
    - Oncology/OP INF-Adult
    - Peds < 10 kg
    - Peds 10-30 kg
    - zPeds >30 kg





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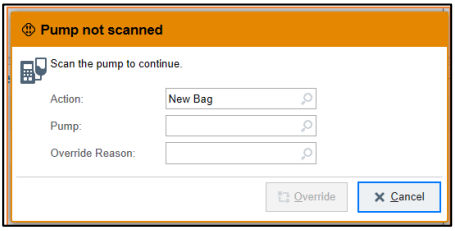
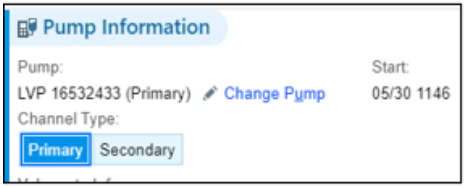
Starting a Fluid or Medication

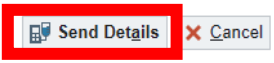
1. Scan the patient's armband.
2. Scan the medication barcode.
3. When the Scan the Infusion Pump window appears, in Epic, scan the barcode on the pump channel



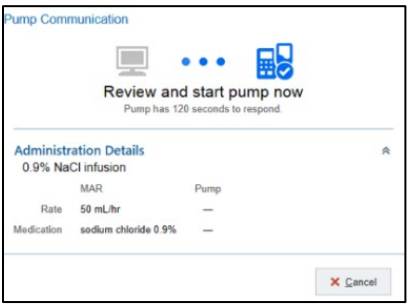
4. Verify Dose, Rate, & VTBI in MAR window
5. Select Primary under Pump Information



6. Click Send Details



7. Epic will send information to the pump channel that was scanned. During this process, a Communication Status message will appear in Epic.



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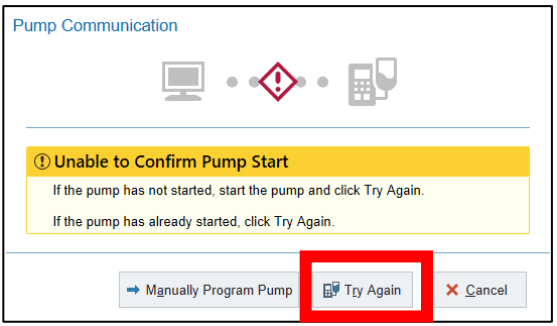
8. Verify that the Rate, VTBI (Volume to be Infused) and all other information on the pump matches what is in the Epic order.(see page 9 for how & when to change the VTBI so infusion does not run dry)
9. Press Start on the pump.
10. The Communication status message in Epic will show pump started successfully.

Ensure you are ready to press Start on the pump to begin your infusion. Take into consideration the pump's location in the room in relation to the computer and if the tubing is spiked/primed before or after you scan the fluid.

11. If Epic times out, press Start on the pump and click Try Again in Epic. Must complete this step to complete documentation.



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Changing the Volume to be Infused (VTBI)—(after infusion started)

Ensure that you have pressed Start on the pump first, to create the connection between Epic and the Alaris Pump.

DO NOT change the volume to be infused BEFORE starting the pump.

After starting the infusion, the Rate and the VTBI can be changed on the pump.

Pump programing is being pulled directly from the order in Epic; the volume to be infused must match the order (ex- 1000 ml of Normal Saline) You must start the pump first, then go back and adjust your VTBI

1. Press Channel Select.
2. Press the VTBI button. 

3. Using the keypad enter the new volume.
4. Press Start.

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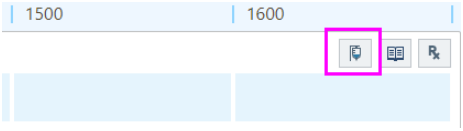
Documenting Volume Infused: Infusion Verify

Using the Infusion Verify button on the toolbar OR the I/O flowsheet column drop down menu will pull true infused volumes from the pump for all associated infusions.

To verify a single infusion, use the Infusion Verify ICON on the far right of the MAR entry



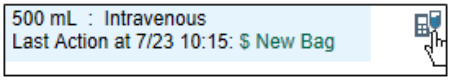
Always check the "Time" field in the Infusion Verify window to ensure you are documenting to the appropriate timeframe.

- Using the Infusion verify button on the toolbar will open the Infusion Verify window at the current time.
    - "Time" field should be changed if you are trying to back chart

- Using the flowsheet column drop down menu will open the Infusion Verify window at the specified column time.

You will always need to use Infusion Verify to pull in the volume from the pump. Do not use the Volume Calculator/Rate Verify All in the flowsheets.

Note: ED can perform this workflow directly from the Narrator using the icon in the graphic below. In the ED Narrator, this is called Pump Rate Verify



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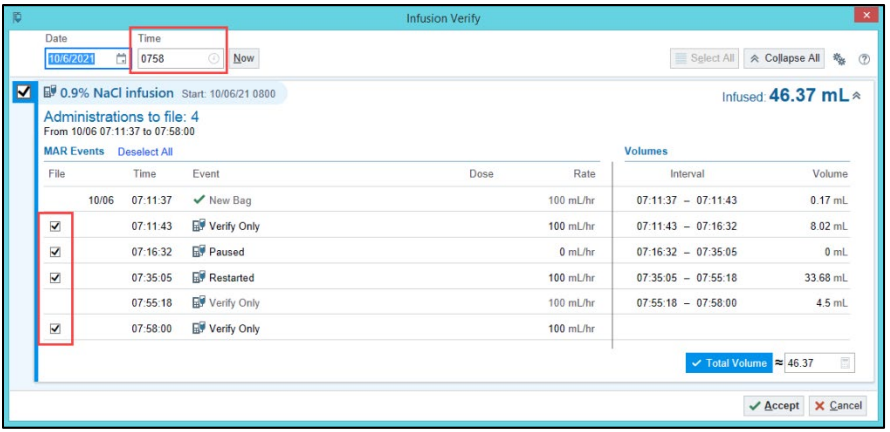
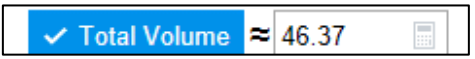
1. Access the I/O flowsheet.
2. Click Infusion Verify on the toolbar OR I/O flowsheet column drop-down menu OR access via ICON on MAR entry

3. Ensure the “Time” field contains the desired time you want to document.
4. Choose the rates you want to verify (document) by making sure a checkmark is next to the correct rate row.



5. Verify the volumes you are filing are accurate for each infusion.



6. Click Accept to verify and file into the flowsheet. You will have to scroll to the bottom to activate the Accept button.

   If you do not complete this step, you have NOT documented.

7. The data is now filed in the flowsheet and MAR.

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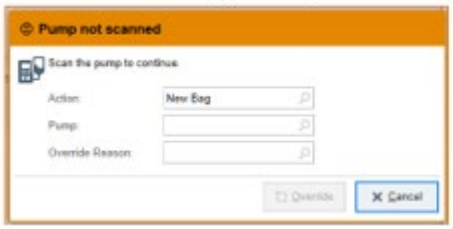
Starting a Subsequent Bag

When the volume to be infused is complete, the pump beeps and drops to a KVO rate.

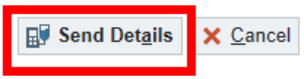
To hang a new bag:

1. Scan the patient's armband.
2. Scan the fluid or medication barcode.
3. After the Scan, the infusion pump window appears, scan the barcode on the same pump channel as the current bag.



4. When the Medication Administration window opens, you will not be prompted to choose Primary or Piggyback, (it's the same order, Epic knows)

5. click
   Send Order Details.



You may have to scroll to the bottom of the window to activate the Send Details to Pump button.

6. Verify the Epic order and the pump exactly match.
7. Press Start on the pump.

Note: When sending order details, the medication remains running. This step does not pause the infusion

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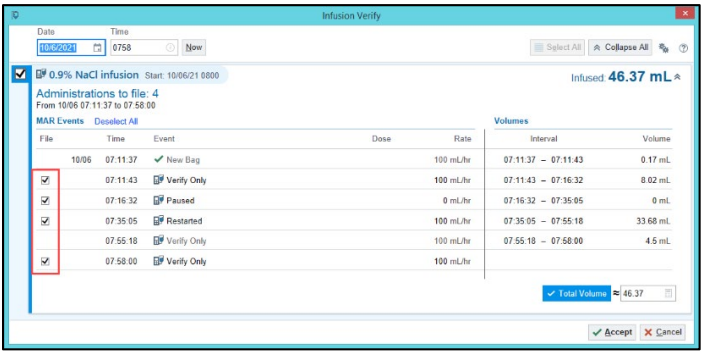
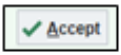
Dose Change - Modified Order

If the order is *modified*, there is no need to rescan the medication or pump. Change the dose on the pump and validate the rate change in the flowsheet.

1. Change the Dose on the pump FIRST.
2. Press Start
3. Open the I&O flowsheet.
4. Click the Infusion Verify button on toolbar OR I/O flowsheet column drop down menu.
5. Ensure you are verifying the correct medication or fluid, which is indicated with a check mark in the File Total Volume box.
6. Uncheck any values you do not want to verify at this time.

   (Reasons to uncheck: pauses caused by patient bends arm, kink in tubing)



7. Click Accept to file. 

Note: If you have not had a chance to Infusion Verify (the previous dose) before the order is modified, you may get a MAR warning the next time you Infusion Verify.

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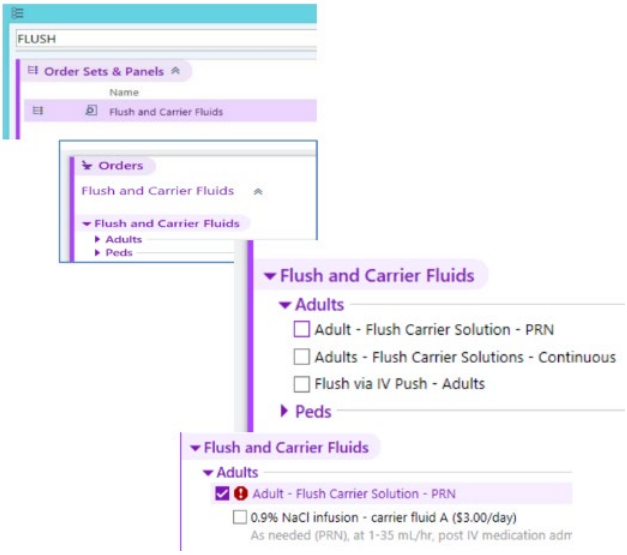
Flush and Carrier Fluids/ KVO

Approved standing orders will be available for any flushes/carrier fluids/keep vein open infusions. This order will appear as a “range” order set, which gives nursing the autonomy to adjust the rate as needed.

Order Set: “Flush and Carrier Fluids”.

NOTE: If you have multiple carrier fluids/”KVO” infusions running, you will need an order for each one.

- The Flush and Carrier Fluids order can be used for infusion solutions of NS, 5%D, and LR. You choose what you need.
- There are up to three flush/carrier infusion lines for each type of solution
    - The flush/carrier infusion lines are indicated as A, B, and C.
    - This does not correlate with pump channels
    - A is one line, B is two lines, and C is three lines.
- There is an Adult section and Pediatric section, only choose one



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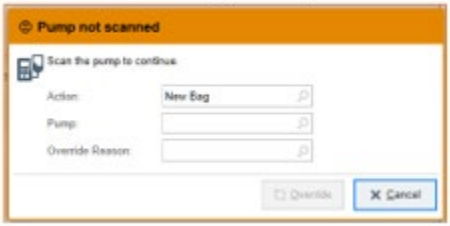
IV Piggyback (IVPB) or Secondary Infusion

Remember: A primary bag or flush bag should be started first and Associated to an order. Now you are ready to start a secondary / piggyback infusion.

1. Scan the patient's armband.
2. Scan the barcode on the medication.
3. When the Scan the Infusion Pump window appears, scan the barcode on the pump channel that your primary is associated with.



4. Verify MAR admin instructions
5. If using Mini Bag +- scan fluid component now
6. Choose Secondary in the Infusion Pump Setup window

7. Click Send Details to Pump button located at the bottom of the MAR Administration window
8. Important: Press the Secondary button on the pump to see infusion details
9. Press Next on the pump.
10. Verify that the Rate, VTBI, and all information on the pump matches the Epic order.
11. Press Start on the pump.

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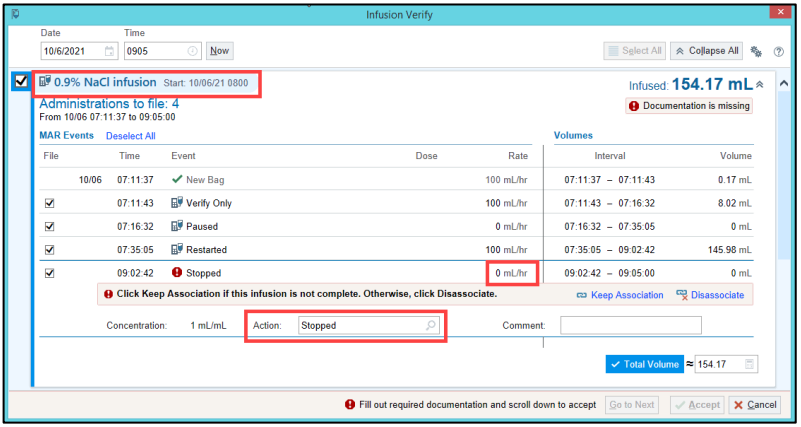
Documenting Infusion Complete: Stop Action and Volume

Once the infusion is completed, you MUST validate the volume(s) in the I/O flowsheet to document that the infusion is completed.

1. Click on the Infusion Verify button on the toolbar OR if on the MAR, the Icon in the MAR record. The Infusion Verify window will open.
2. Ensure the "Time" field contains the desired time you want to document.
3. Locate the fluid/medication that you want to verify.
4. Notice the zero rate and the Stopped action. Select the magnifying glass to change the action to Paused if needed.



5. Click Accept.

Note: ED can perform this workflow from the ED Narrator using the icon in the graphic below.

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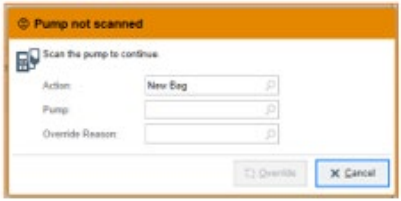
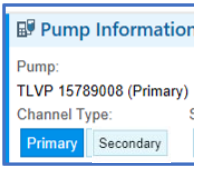
Completing a Dual Sign Off

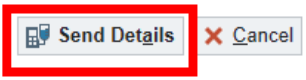
1. Scan the patient's armband.
2. Scan the barcode on the medication.
3. When the Scan the infusion pump window appears, scan the barcode on the pump channel.



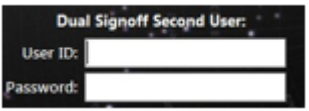
4. Select Primary in the Pump Information section and click Accept.



5. Both nurses Verify the medication administration details.
6. Click Send Details.



7. Pump: Verify pump matches order. Click Start
8. EPIC: Complete Dual Sign Off



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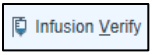
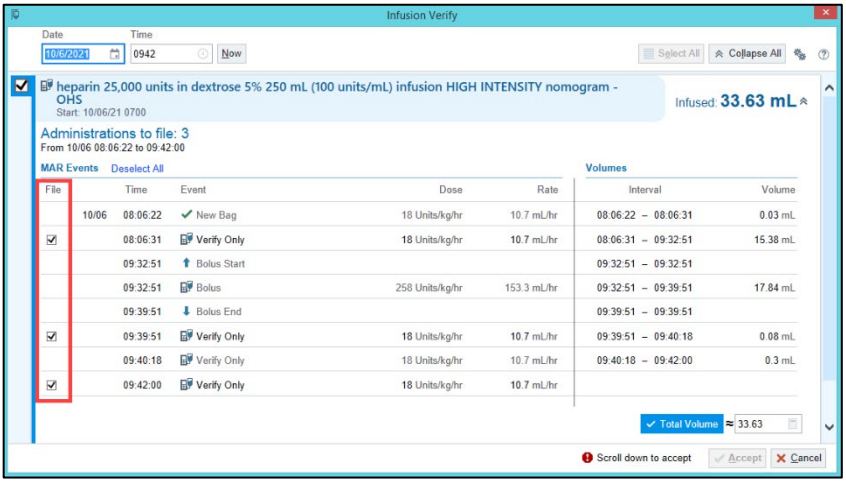
Dual Signoff with a Rate Change

1. Change the rate on the pump.
2. Press Start on the pump.
3. Click the Infusion Verify button on the toolbar or the ICON on the MAR record

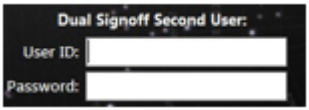


4. Ensure the “Time” field contains the desired time you want to document.
5. Choose the rates you want to verify (document) by making sure a checkmark is next to the correct rate



rows.

6. The Dual Signoff window will open; have the second nurse sign off the medication. Click “OK”



To perform a Dual Sign Off Bolus see bottom of page 28

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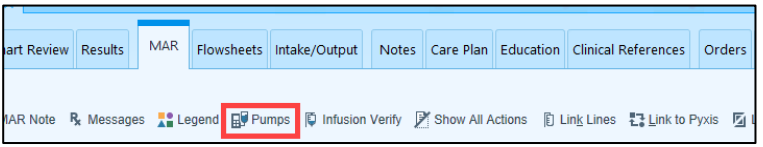
Pump Association and Disassociation

This is the linking of a specific order to a specific pump channel. This is exclusively a 1:1 connection, and this connection is required for pump data to be validated into Epic. Typically, you will do this by scanning the pump barcode when administering an infusion.

To see all the pump associations:

1. Click the MAR.
2. Click the Pumps button on the toolbar.



This will show all the fluids/medications that are associated with the channels.

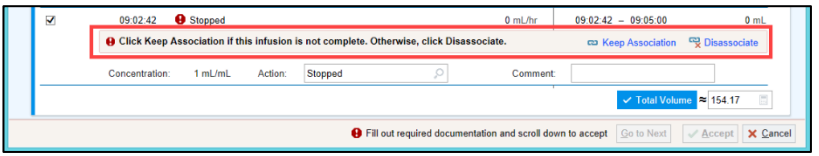
Disassociations

If discontinuing IV fluids or a medication and the channel is no longer needed, then you disassociate the pump channel from the electronic medical record (EMR). This stops the communication between EPIC & the pump.

Disassociate does NOT delete the information

Disassociate does NOT document a STOP

Disassociation can be done through Infusion Verify.



Turning the pump “off” does not disassociate.

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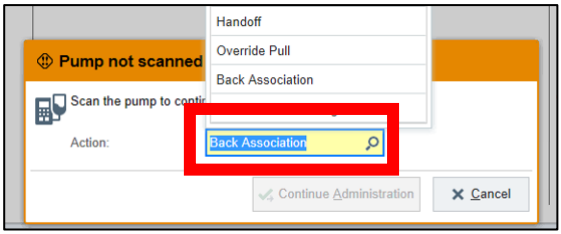
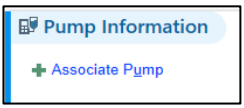
Back Association: From an out-of-scope department

When a patient has been transferred from an out-of-scope area such as the OR into an in-scope area such as PACU and the infusion is already running on the pump, you will need to associate the pump.

1. Scan the patient armband.
2. Scan the barcode on the medication.
3. When the product scan window opens, choose the action
   Back Association. (NOT new bag) and press Accept



4. In Pump Information section, click Associate Pump. Then scan the pump.
5. Choose Primary infusion.



Important: Choose or enter the time that you assumed responsibility of the patient on the arriving unit as the Association Start Time. Note: “Original time” is the time the medication/fluid was scanned.

6. Click Accept

Note: you will NOT follow the “New Bag” process. You are only needing to associate that medication to that specific module. An “ASSOCIATION” action document to the MAR.

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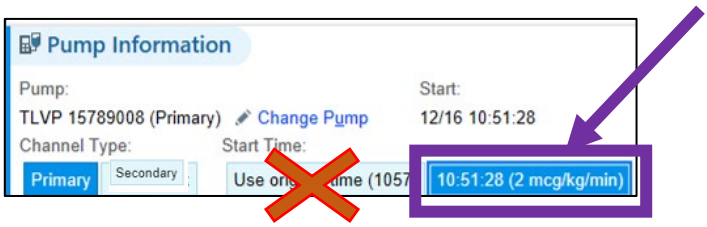
Back Association: Infusion you initiated

In an emergency or in downtime, you may need to hang fluids/medication on your patient before there is an order in Epic. You can manually program the pump as you currently do, and then Back Associate once the order is in Epic.

How to Back Associate:

1. Scan the patient armband.
2. Scan the medication barcode.
3. Leave the MAR "action" as New Bag. You are stating that YOU initiated this infusion and hung the first bag.
4. When the Scan the infusion pump channel window appears, scan the barcode on the pump channel.
5. Verify MAR dose & rate
6. Choose Primary in the "Infusion Pump Setup window". You want the time to be the time you started the infusion, not the current time
7. In the Pump Information section, select the time suggestion you actually started the fluids (this is very important). DO NOT choose "Use original time".



8. Click Accept.

   You will NOT have to "send details to pump"

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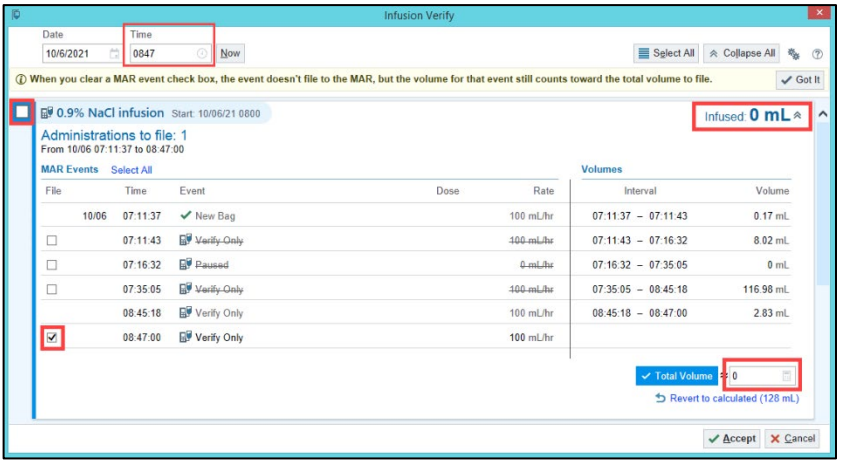
Assuming Care: Infusions Already Associated

You've assumed care of a patient (shift change or admit), and the infusions have already been associated. However, the person who last cared for the patient did not perform an Infusion Verify.

1. Note the time you assumed care of the patient
2. Open Infusion Verify and ensure the "Time" field contains the desired time you want to document.
3. Uncheck the "big box" first – this unchecks data pulled under this med -helpful if there is a lot of data
4. Ensure the time you are claiming is "checked"



5. Change volume to "0"
6. Click Accept

Remember: Out of scope areas will continue to chart medications and I/O's as they currently do

The next time you Infusion Verify – only the data from your last infusion verify will pull over- think DATA SANDWICH

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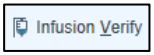
Stopping an Infusion

When to Stop an Infusion

- Discontinued Medication (Action: Stopped)
- One-time orders (Action: Stopped)
- Allergic reaction (Action: Stopped)

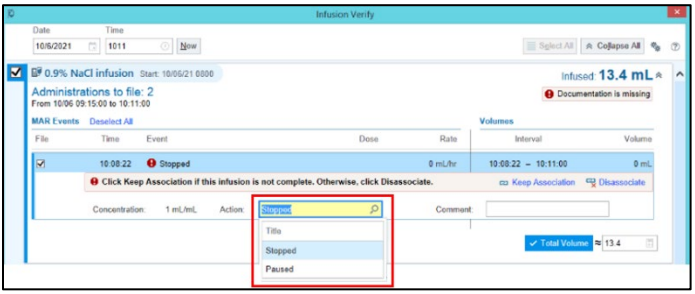
Stopping an Infusion

1. Stop the fluid or medication on the pump.



2. Open Infusion Verify from the toolbar or the ICON on the MAR record

3. Choose the rates you want to verify (document) by making sure a checkmark is next to the correct group.
4. Notice the zero rate and the options “Stopped” and “Paused”. Make sure Stopped is highlighted.



After the infusion is complete, disassociate the pump from that order.

5. Click the Disassociate button, next to the 0 (zero) rate in the Infusion Verify window.
6. Click Accept.

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Restarting an Infusion (Place pump in the READY state to facilitate restarts)

(Ex: titratable medication -briefly titrated off – needs to be restarted)

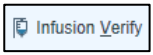
If the brain was powered down, (medication was temporarily stop/disconnected from the patient) you can restore the most recent settings and infusions by re-starting using Restore on the pump.

1. Turn on the pump. (If pump is already “on” skip to step 4)
2. Choose No for New Patient.
3. Press Yes to continue with same profile.

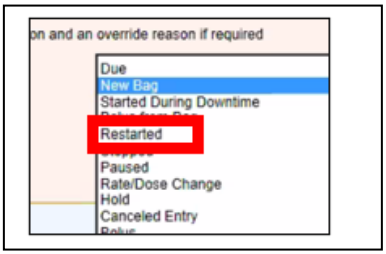
From the READY state:

4. Press the pump channel button for the fluid that you want to continue.

5. Push Restore on the bottom left of the pump.
6. Verify the Epic order matches the pump settings and press Start on the pump.
7. Open Infusion Verify from the toolbar or from the MAR record



8. Choose the rates you want to verify (document) by making sure a checkmark is next to the correct group. The action should be Restarted.



9. Click Accept.

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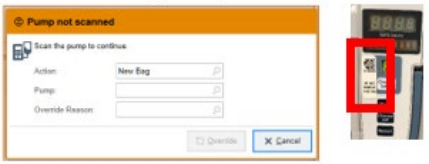
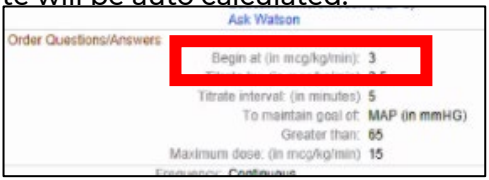
Starting a Titratable Medication

1. Scan the patient's armband.
2. Scan the medication barcode.
3. When the Scan the Infusion Pump window appears in Epic scan the barcode on the pump channel.

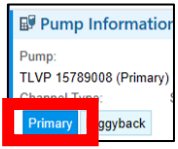


4. When the Medication Administration window opens, make sure the ordered dose range is correct.

5. Enter the initial ordered dose into the DOSE field. The rate will be auto calculated.



6. In Epic, select Primary in the Pump Information setup window



7. Click Send Details.
8. Verify that the Rate, VTBI and all other information on the pump matches what is in the Epic order.
9. Press Start on the pump.

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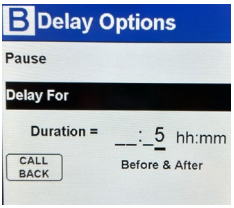
Titrating a Medication (Non-Emergent Situation)

1. Verify titration order parameters in the MAR
2. Adjust DOSE on the pump as needed per order
3. Document the dose adjustment via Infusion Verify
4. Open Infusion Verify from the toolbar or the ICON on the MAR record
5. Verify the data
6. Click Accept.

(If the MAR Warning window populates, select "Titratable Drug"
This should not happen if the does is entered as a range order)

Utilizing the "Delay" Feature

- "Delay For" allows a delay in time, minutes &/or hours. Enter the time you want for the delay
- DO NOT change the call back option, it is defaulted to Before & After
- When the time is up, the channel will alarm DELAY COMLETE.
- The nurse must manually select restart for the infusion to resume.



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MEDICATION Bolus from an Existing Bag (two steps- administer and document)

The Medication must already be infusing on the pump.

1. Scan the patient's armband
2. Scan the medication barcode

The "Select An Order" window opens and displays the base order and the bolus.

3. Select the correct bolus order and verify correct dose in MAR. Click Accept.
4. Ensure the MAR action is BOLUS FROM BAG. You will NOT scan the pump.
5. Verify the time is the time you administered the bolus.

On Pump:

1. Press the Channel Select button.
2. Press Bolus.
3. Program the pump per order (dose, VTBI, duration, etc)
4. Press Start.
5. Click Accept in EPIC & complete dual sign-off, if applicable.

When the Bolus is finished, the pump will return to the original rate.

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Dual Sign-off Bolus – from an existing bag

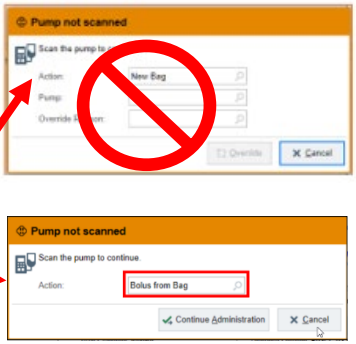
Additional notes:

- Make the pump change BEFORE you sign
- No pump scan required, therefore you will not "send order details to pump".
- Manually program the bolus.
- You will be prompted for the dual sign off.

FLUID Bolus from Existing Bag

There is no BOLUS button in Guardrail Fluids

The fluid must already be infusing on the pump. Consider the volume remaining in the bag. Do you need a separate bag? Or is there enough in the bag that is currently infusing?



1. Scan patient's armband.
2. Scan medication barcode.
3. If given choice to choose order: Select the Bolus order.
4. Click Accept.
5. DO NOT scan the pump*
6. Change the "Action" to "Bolus from Bag"
7. Click Continue Administration.
8. View MAR to verify bolus order
9. Click Accept in MAR

<u>On the pump:</u>

10. Press Channel Select.
11. Program your bolus rate and VTBI from the order by adjusting your current primary infusion settings.
12. Press Start on the pump.

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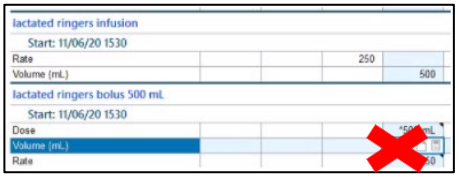
Fluid Bolus (cont.)

When the Bolus is finished, the pump will drop down to KVO (20 mL/hr). Assess the patient and reprogram the pump for the rate and VTBI from the primary infusion order.

When performing an Infusion Verify, bolus volume is documented under the CONTINUOUS INFUSION NOT the bolus order. Do NOT use the "calculator" under the bolus in the I/O flowsheet to calculate the volume.



Bolus dose of 500ml documented under continuous LR infusion (via Infusion Verify)

Do NOT use volume calculator under bolus order

Fluid Bolus from a New Bag (utilizing a separate channel)
(not enough volume in current bag – hanging a NEW bag as a primary infusion on a separate channel to give bolus)

This will be the same workflow as hanging/starting a new primary bag.

See page 7 for "Starting a Fluid or Medication"

Fluid Bolus from an Existing Bag (but not enough volume in current bag)

(Plan to use same pump as your continuous infusion, but the bag needs to be changed in order to give the bolus amount)

See page 12 for "Subsequent Bag"
Then follow page 28 - "Fluid Bolus from Existing Bag"

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Documenting Bolus Infusion Completed

Once the bolus is completed, you will need to validate the infusion intake and document the infusion is completed via Infusion Verify.

1. Open Infusion Verify from toolbar or the ICON on the MAR record

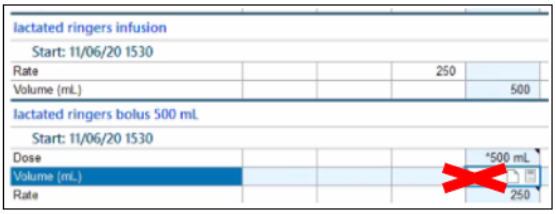
2. Validate the data, address any MAR warnings such as rate higher than expected or rate lower than expected

3. Click Accept

4. Reminder: bolus volume will show in primary infusion row on the I&O Flowsheet

When the Bolus is finished, the pump will drop down to KVO. You will need to assess the patient and reprogram the pump for the rate and VTBI from the primary infusion order.

Volume is documented under the CONTINUOUS INFUSION NOT the bolus order. Do NOT use the "calculator" under the bolus in the I/O flowsheet to calculate the volume.



Bolus dose of 500ml documented under continuous LR infusion (via pump rate verify)

Do NOT use volume calculator under bolus order

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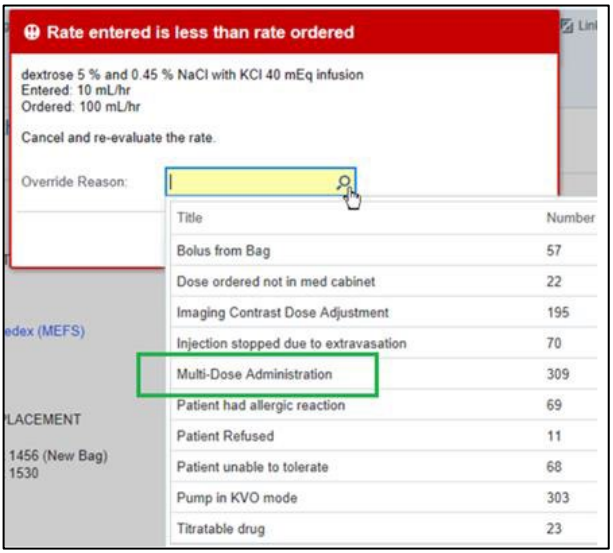
Multi-Dose Administrations

Example: Provider order 40 mEq Potassium IV and you pull 4 bags of 10 mEq Potassium IV.

- Remove full dose from the pyxis
- Scan each dose (bag) as you administer them (do NOT scan all IV bags at one administration time)
- A MAR warning will appear, noting that the entered rate/dose does not match the ordered rate/dose
    - Choose Multi-Dose Administration
    - Verify that the dose and rate are correct before sending details to pump.

- When the first dose is completed, repeat these steps to properly document and administer the next dose



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Insulin Infusion Calculator-Initiation

1. Scan the patient, medication, and IV pump channel
2. Select INITIATE action then enter the current Glucose level to generate the calculated dose. Ensure the following are entered in the Med Admin details window located above the calculator" MAR action= New Bag, Dose field = calculated dose value. Select the pump information/channel type = Primary
3. Select the Order button on the MAR. Confirm MAR Details are displaying on the infusion pump. You will be prompted to complete a dual signature on the MAR.

Insulin Infusion Calculator Dose Adjustments

1. Go to the MAR and select "Rate/Dose Change" to open the Medication Administration Widow
2. Use the Insulin Infusion Calculator
   - Select Calculate Dose action then enter current POCT Glucose to generate the newly calculated dose
3. GO TO THE PUMP- Manually change the dose on the pump if the calculated dose is different.
   - If the dose stays the same change MAR action to No Rate/Dose Change
4. Click Accept on the MAR and complete dual sign off
5. Perform an infusion verify the next time you document Intake/Output

Because the infusion calculator lives in the MAR, the calculated new dose is done in the MAR administration window. Make the dose change on the pump PRIOR to clicking Accept in Epic (where dual sign is performed).

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OB Considerations

Magnesium and Oxytocin (non-titrating) infusion and Bolus Dosing

You must START the primary medication infusion FIRST using interoperability then administer the bolus using the bolus soft key.

Don't forget to document the bolus administration on the MAR*

Oxytocin (non-titrating) and BOLUS From BAG after placenta Delivery: Following a Titrating Oxytocin Infusion-

1. Perform Quick Restart
2. Select Oxytocin post-partum from the Guardrail Drug library
3. Rate defaults to 95 mL/hr then enter VTBI (estimate what is left in the bag)
4. Press START
5. Press CHANNEL SELECT then press Bolus soft key to administer, verify ordered dose, START
6. Manually document Bolus administration on the MAR Bolus order
7. Back associate the oxytocin infusion from the MAR using a "Back Association" MAR action.
8. Now you can INFUSION VERIFY.

Oxytocin (non-titrating) and BOLUS From BAG after placenta Delivery: without titrating oxytocin

1. Ensure pump channel is on and in the READY state.
2. Follow workflow for New Bag > press START
3. Press CHANNEL SELECT then press Bolus soft key to administer, verify ordered dose, START
4. Manually document Bolus administration on the MAR Bolus order

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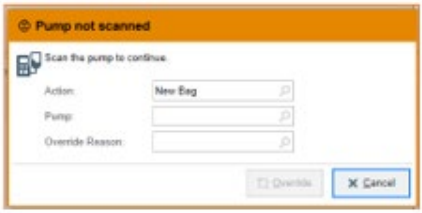
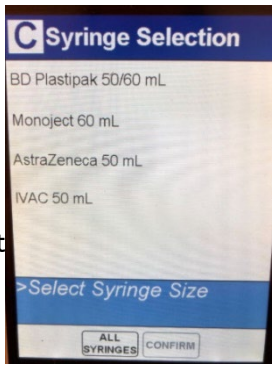
Syringe Module

Prepare the medications and tubing as you currently do. Then follow the steps below to continue with the integration into Epic.

1. Scan the patient's armband.
2. Scan the medication barcode.
3. When the Scan the Infusion Pump window appears in Epic scan the barcode on the syringe pump channel.



4. When the "Medication Administration" window opens verify that the order is correct.
5. Click Send Details.
6. Install the syringe into the pump at this time- the pump will tell you when to complete this action.
7. Select the syringe size.
8. Verify the medication details. Click Next.
9. Use the rate/volume key to adjust the VTBI if needed. NOTE: changing the VTBI will auto adjust the rate.
10. Ensure the RATE matches the order before starting the infusion.



11. Press Start 

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Flushing a Syringe Module

Adding a FLUSH syringe after the medication has completed:

(You must have an order(s) for flushes. They will be charted in the MAR, but the "order details" will NOT be sent to the pump.)

1. Change the syringe to a flush syringe.
2. Press channel select.
3. "Confirm" syringe size.
4. Press Restore on the pump.

This action will restore the previous medication that was programmed.

5. Press Next.
6. Change the VTBI to the desired flush volume you wish to instill.
7. Press Start.

Note: In the I/O flowsheet the flush volume will be included in the medication volume. The MAR will be the source of truth for amount of medication given.

Underfilled Syringe/Line primed with medication:

- You will have to adjust your VTBI
- You will have to adjust your rate to match the ordered rate
- If EPIC sends a VTBI that is greater than what the pump detects, the populated VTBI will be blank – which requires a manual entry

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Out of Scope Medications

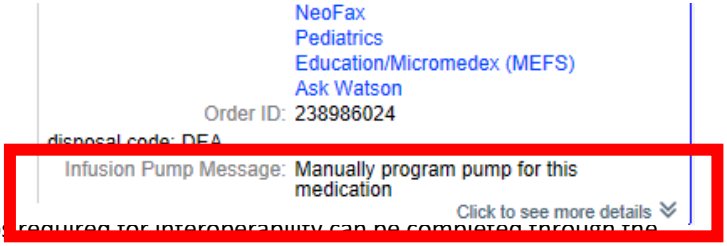
An “out of scope” infusion must be manually programmed on the pump. Meaning, you will need to go into the library, find the infusion, and enter in the details from the order in Epic.

Remember, if you are manually programming the pump you will need to manually document any changes in the MAR and enter your totals into the I&O’s Flowsheet.

Below is a list of some common “Out of Scope” Infusions:

- Blood products
- PCAs
- Epidurals
- Any medication NOT run on an Alaris pump
- Medications administered during a Code Blue
- Penicillin G
- Investigational drugs that are not in the drug library

There will be a notation on the MAR for out-of-scope medications. This is what you will see on the MAR:



All steps required for interoperability can be completed through the ED Narrator.

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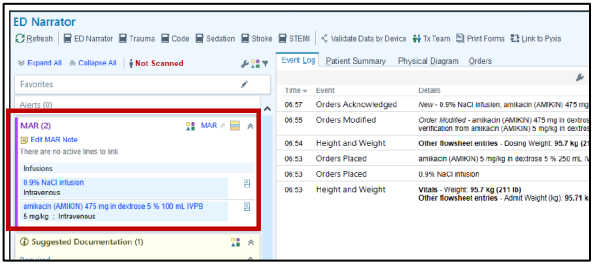
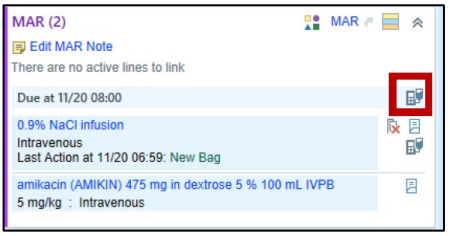
- Mini MAR can be accessed on the ED Narrator

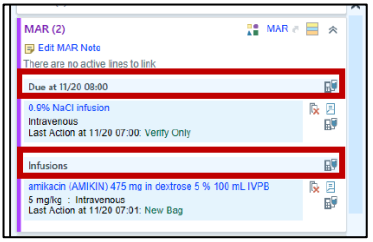


- Once an infusion has been started using interoperability, there will be a Pump Rate Verify icon on the mini MAR.

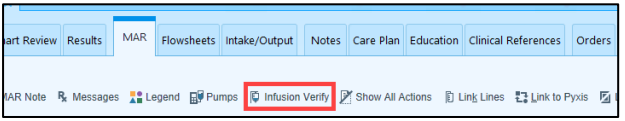


- The Pump Rate Verify window will open when the icon is selected.

NOTE: If all infusions are in the same category, they can be verified together by selecting the icon next to the category name. However, If infusions fall into different categories, each category will need to be verified separately.



NOTE: If using the MAR activity, you will document volumes and actions using Infusion Verify, not Pump Rate Verify



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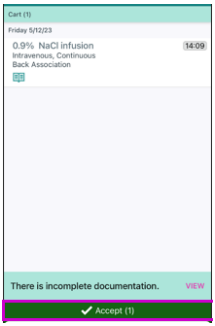
Using Rover

Rover enabled devices can be used to administer IV fluids and medications using interoperability.

1. Go to the MAR.
2. Create “New Admin”.
3. Scan patient armband.
4. Scan the medication/fluid barcode
5. Confirm administration details
6. Click Accept
7. Scan the pump when prompted.
8. Select Primary or Secondary when prompted. Then click Next.



Note: You can NOT Infusion Verify via Rover. Infusion Verify must be done using a computer.

Back Association from an out-of-scope area (you did not start)

1. Scan the patient armband and medication barcode.
2. Click “Admin Details” and choose the action Back Association. (NOT new bag)
3. Use the back arrows to access the medication in the Cart
4. Once in the Cart, click “Accept” to scan the pump channel.

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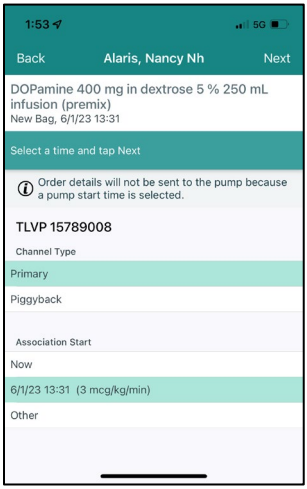
5. Select the Channel Type and the Association Start. Choose “Now” since this is the time that you are taking over patient care.

6. Click Next. The administration is now saved.

Back Associate an infusion that you started earlier (during downtime or in an emergency)

1. Scan the patient armband and medication barcode.
2. Click “Admin Details” and keep action as New Bag.
   a. You are stating that YOU initiated this infusion and hung the first bag.
3. Select the Dose field. Input the dose currently running on the pump and
4. Use the back arrows to access the medication in the Cart.
5. Once in the Cart, click “Accept” to scan the pump channel.
6. Select the Channel Type and the Association Start. Choose the date and time you started the infusion. Do not choose “Now”.



7. Click Next. The administration is now saved.

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Problem Solving

Basic Troubleshooting

If you are not able to start or back associate an infusion with interop, first ask:

- Is the pump on?
- Is the order verified?
- Is the fluid/drug in scope?
    - Check to MAR for the “Manually Program Pump for this Medication” message
- Is the administration time correct?
- Is the drug ordered as an “infusion”?
    - Other IV routes (i.e. IV Push/Injection) are out of scope for interoperability.
- Does the order have a rate?
    - The order MUST have a rate. This can be seen on the MAR before sending order details.
- Was the infusion manually programmed in Basic Mode?
    - Basic infusions will need to be promoted to Guardrails before using interop. “Promoted” action can be found under OPTION keys.
- Is the pump already associated with a “running” order?
    - Each channel can only be associated with 1 infusion at a time. Nurse will be prompted to disassociate if the channel is already associated with another order.
- Is the pump ready?

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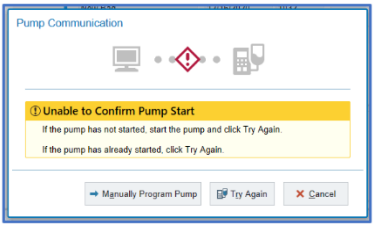
Problem Solving (cont.)

- The pump must be powered on, have the current drug library, in the appropriate profile, have WiFi, and have a barcode.

Error Messages

Warnings and Error messages will display with precise wording and direction. You should follow the directions on the error message and if it is an error that you can resolve, click "Resend Order". Remember manual program pump means you are NOT using interoperability, so that should be selected only when you cannot resolve the issue.

(see page 8 #11)



- Error message: Medication ID Not Found
  - Technical issue that must be fixed by IT.
  - Move forward without interoperability and create a help desk ticket.
- Error message: Rate Required
  - Enter the rate in the MAR admin window and resend. Create a help desk ticket.

Infusion Verify Troubleshooting

- Larger than expected volumes
  - This may happen if stop actions were not documented on the previous administration.
  - To fix: See page 22.

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- Order associated, but not showing in the Infusion Verify window
    - Flowsheet rows must be active to document in Infusion Verify.

    - To fix: Check flowsheets to confirm that you can see the flowsheet rows for that infusion. If you cannot, select Unhide Completed to reveal, then complete Infusion Verify. Infusion groups must be checked in Flowsheets.

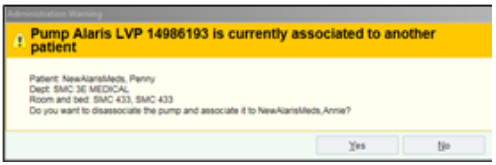
Alaris Pump Barcode:

- If the barcode sticker falls off the pump channel (or will not scan), call Bio Med to get the sticker replaced and a new pump.

- Does the barcode match serial number? Options > Page Down>Serial Numbers

Association Error:

If you receive a pump already associated message this is because the previous patient was not disassociated from the pump.



1. If the error is showing the incorrect patient, click Yes to continue with the disassociation.
2. Associate the pump with the patient to whom you will be administering the medications

Calculated Volume for an Offline Pump

If the pump cannot communicate with Epic due to downtime, pump off, or a wireless issue, Infusion Verify

will calculate the rate that was set *before* the interruption in communication.

If the rate was manually changed during the interruption, Epic will show a higher or lower rate than what is showing on the pump to calculate volumes infused.

You will need to compare the rate on the pump with the rate showing in the Infusion Verify window in Epic, and make sure they match. If they do not match, you will have to manually enter the rate and volume infused using the physical pump as your guide.

Time Lock State / Day Light Savings

If time change has occurred and you are unable to send order details to the pump, Epic is not communicating, or if information from an infusion is not appearing in Infusion Verify then the pump could be in a time lock state. Follow the steps below to check if it is locked.

With current infusions running:

1. Press Options on the Pump
2. Click the Page Down soft key.
3. Select Time of Day.
4. Validate that the time of day matches the expected time.
    a. If it matches click EXIT.
    b. If it does not match – Do NOT press change time or confirm.
        - POWER DOWN the entire system
        - Then press ON

        *This will re-sync the time AND correct the problem
    c. Select No to new patient
    d. Click Yes to confirm the same profile
    e. Select the channel for each infusion
    f. Click Restore to restore each infusion
    g. Press Start

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Frequently Asked Questions

Can I clear my pump volumes?

Yes, even though Epic is pulling all of your volumes, it is a good practice to routinely clear the volume infused on your pumps. This does not effect your I&O's in EPIC, but can be helpful – especially when infusing both "in" and "out" of scope medications.

I just received a patient from an "out of scope" department with medications infusing. The medications have all been charted in the MAR. What do I do?

You would need to "Associate the pumps".

What happens during EPIC downtime?

One-time medications that are started and stopped during downtime can not be back associated – these volumes would have to be charted manually in the MAR & I/O flowsheet.

If the medication was started during downtime AND still infusing, the medication can be back associated. (see page 20)

What if I temporarily loose WIFI (severe weather or transporting via an elevator)?
Interoperability stores data for up to 8 hours. Once the pump gains WIFI, that information can be pulled over into EPIC via Infusion Verify.

When I try to Infusion Verify, I do not see a medication or its associated volumes?

There is a slight delay in transmitting data. Remember "top of the next minute".

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FAQS

Example: Medication administered at 13:00:02 – data will not populate until the following "minute" (must wait 58 seconds)– 13:01:00

Medication administered at 13:00:58 – (must wait 2 seconds) –until the following "minute" – 13:01:00

If data still not pulling & WIFI is present, contact Help Desk to place a ticket.

When I Infusion Verify, I notice some of my rows are "greyed-out"?

This will appear when there are pauses that last less than 5 minutes.

I only want to Verify one of my continuous infusions, can I do that?

Yes, when you Infusion Verify, you can unclick any boxes that you do not wish to document. You can also click the medication in the I/O Flowsheet to verify that medication alone.

I gave a medication emergently and I'm trying to "Back Associate", but it is not asking me to "scan the pump"?

Verify that there is WIFI and the order in in EPIC and verified by pharmacy.

If yes to above – a medication must be infusing for at least 5 minutes in order to "back associate".

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