

Programming an infusion with a custom concentration entry

BD Alaris™ System

Your hospital may choose to have a medication with an unspecified concentration entry (e.g., __ mg/ __ mL) in your drug library. In this situation, the user must manually enter the DRUG AMOUNT and DILUENT VOLUME. This is called a custom concentration.

Step 1: After selecting a medication, select the concentration

Custom concentration should only be used when the medication label does not match any of the drug concentration selections on the programming screen.

Rebecca Smith ICU
PT ID: 7850222
DOB: 07/23/1997
Wt: 50 KG
MD: Dr. M. Johnson
DOPAMINE
800 mg/250mL
(3200 mcg/mL)
Begin at
10 mcg/kg/min
(9.38 mL/h)

Figure 1—Sample drug label

No concentration entries for Dopamine match the drug label (see Figures 1 and 2).

Guardrails Drugs Adult ICU
Dopamine
400mg/250mL
__mg/ __mL
>Select CONCENTRATION

Figure 2

Guardrails Drugs Adult ICU
Dopamine
__mg/ __mL was selected.
Is this correct?
Dosing Units: mcg/kg/min
BOLUS Dosing Units: mcg/kg
>Press Yes or No

Figure 3

The custom concentration entry “__mg/ __mL” must be selected to manually enter the ordered concentration (see Figure 3).

Step 2: Enter the DRUG AMOUNT and DILUENT VOLUME. Then confirm the concentration on the display matches the medication label.

Guardrails Drug Setup Dopamine
DRUG AMOUNT: __ mg
DILUENT VOLUME: __ mL
PATIENT WEIGHT: __ kg
TIME UNITS: Min
DOSING UNITS: mcg/kg/min
>Enter Amount of Drug in Container
[DRUG LIBRARY]

Figure 4

Guardrails Drug Setup Dopamine
DRUG AMOUNT: 800 mg
DILUENT VOLUME: 250 mL
PATIENT WEIGHT: 50 kg
TIME UNITS: Min
DOSING UNITS: mcg/kg/min
[Conc]: 3200 mcg/mL
>Press NEXT to Confirm
[DRUG LIBRARY] [NEXT]

Figure 5

Concentration is calculated from the entry of the **DRUG AMOUNT** and **DILUENT VOLUME** (see Figures 4 and 5).

Concentration

Note: The **DRUG AMOUNT** is not the **DOSE**. The **DOSE** is entered on the next screen (see Figure 6).

Guardrails Drug Setup Dopamine
CONTINUOUS INFUSION
RATE: 9.38 mL/h
VTBI: 250 mL
DOSE: 10 mcg/kg/min
[Conc]: 3200 mcg/mL
>Press START
[PAUSE] [SETUP] [BOLUS] [START]

Figure 6

WARNING: If an error is made when entering **DRUG AMOUNT** or **DILUENT VOLUME**, it may result in an over- or under-infusion. If a lower concentration is entered in error, this may result in a **higher** than intended delivery (over-infusion).

Example of concentration Guardrails™ Software alert for firmware version 12.1.2:

Guardrails Drug Setup Dopamine
POSSIBLE OVERDOSE
Drug Amount entered: 5 mg
Diluent Volume entered: 50 mL
[Conc]: 100 mcg/mL
Concentration of 100 mcg/mL is below Guardrails limit of 1000 mcg/mL.
>Press MORE INFO or Press CANCEL
[MORE INFO]

Figure 7

Guardrails Drug Setup Dopamine
Check:
*Drug Amount Yes
*Diluent Volume No
*Concentration on drug label No
If correct press YES
Or- press NO to reprogram.
Verify RATE before starting infusion
>Press YES or NO

Figure 8

Reenter drug amount and diluent volume

Example of a concentration Guardrails™ Software alert for firmware versions prior to 12.1.2:

Guardrails Drug Setup Dopamine
Concentration is below Guardrails limit of 1000 mcg/mL
Proceed?
>Press Yes or No

Figure 9

If a concentration Guardrails™ Safety Software alert is encountered during programming, to ensure accuracy, select No and check that the following parameters match the drug label (see Figure 9):

- DRUG AMOUNT
- DILUENT VOLUME
- [Conc] (concentration)

For product support, contact Customer Advocacy at 888.812.3266 or customerfeedback@bd.com

For technical support, contact our Technical Support Center at 866.488.1408.

For product orders, contact Customer Order Management at 800.482.4822.

For complete instructions, refer to the BD Alaris™ System User Manual at bd.com

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