

Clinical Reminders

GO LIVE
NOV 4

Vasopressor Concentration Standardization (Adults and Pediatrics)

EPINEPHrine • norepinephrine • phenylephrine

All HCA facilities are moving to standard drug concentrations for certain vasopressor infusions.

The Why

- Currently, HCA facilities use a variety of concentrations for these medications. However, guidelines and national societies for medication safety recommend limiting the number of available drug concentrations.
- Standardization of concentrations is being implemented to help decrease medication errors, such as under or over-dosing, especially when moving between facilities.

**CAUTION: NEW STANDARD
CONCENTRATION**
Please Verify Pump Settings

Infusion Initiation

When programming the IV pump, if the new standard concentrations are NOT listed in the pump library, STOP and do the following:

- Take the pump out of service and tag it for inspection, according to your facility policy.
- Obtain a new pump and verify that it has the updated medication library and the correct concentration option. Program pump according to orders/protocol.
- Always scan the barcode on the medication bag to ensure the correct concentration is infused.
- Always scan the medication and patient to ensure right drug and right patient.
- Always use the IV pump medication library with safety guardrails.
- Double check the concentration in the pump against the medication label and the patient's order before starting the infusion.
- Do NOT use a memorized dose.
- Always refer to patient's order for initial dose and titration information.

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Vasopressor Concentration Changes - Adult

IV pump and preparation changes

EPINEPHrine

Current Preparation	New Formulation	IV Pump Library Changes	Code Cart Changes
16 mcg/mL (4mg/250mL compound/cmp premix)	20 mcg/mL (5 mg/250mL) PREMIX	New Concentration build	Adult Code Cart
40 mcg/mL (10mg/250mL compound)	40 mcg/mL (10 mg/250mL) Vial 2 Bag (V2B)	Formulation change (260mL total volume in pump)	

norepinephrine

Current Preparation	New Formulation	IV Pump Library Changes	Code Cart Changes
16 mcg/mL (4mg/250mL compound/cmp premix)	16mcg/mL (4 mg/250mL) V2B	Formulation change (254mL total volume in pump)	Adult Code Cart (kit to include 250mL bag, V2B adapter and label)
64 mcg/mL (16mg/250mL compound/cmp premix)	64 mcg/mL (16 mg/250mL) from pharmacy	Formulation change (266mL total volume in pump)	

phenylephrine

Current Preparation	New Formulation	IV Pump Library Changes	Code Cart Changes
100 mcg/mL (50mg/500mL compound/cmp premix)	200 mcg/mL (50 mg/250mL) V2B	New Concentration build (255mL total volume in pump)	Adult Code Cart (kit to include 250mL bag, V2B adapter and label)
200 mcg/mL (100mg/500mL) compound	400 mcg/mL (100 mg/250mL) V2B	New Concentration build (260 mL total volume in pump)	
	100 mcg/mL (10 mg/100mL) Vial 2 Bag **Anesthesia only**	101mL total volume in pump	

ADULT Concentration and formulation changes will increase availability of drips on the floor. Concentration changes affect EPINEPHrine and phenylephrine. Formulation changes affect EPINEPHrine, norepinephrine and phenylephrine. cmp = compounded

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Vasopressor Changes - EPINEPHrine Titration & Transition Support

EPINEPHrine Infusion

Starting dose: 2 mcg/min, Maximum dose: 12 mcg/min, Goal: Keep MAP $\geq$ 65 mmHg

If BELOW goal: Increase the infusion rate by 2 mcg/min every 3 minutes until goal is reached. Contact provider if maximum dose is reached and goal parameter is not met.

If at goal: maintain current infusion rate

If ABOVE goal: Decrease the infusion rate by 2 mcg/min every 3 minutes until goal is reached.

Weaning Instructions: When directed to wean by provider order, decrease the infusion rate by 2 mcg/min every 3 minutes until the infusion is off. If the patient is receiving more than one vasopressor, clarify with the provider which medication should be weaned first.

Additional Information: Standard concentration: 20 mcg/mL. For suspected extravasation (medication leaking outside the vein), follow the Extravasation Non-Cytotoxic Plan, Adult (System) and notify the provider for treatment orders.

Concentration change education support

- Pyxis Clinical Decision Category (CDC) concentration alerts will display for pyxis stocked products (for 90 days post-go live).
- Pharmacy prepared formulations will be labeled with concentration change sticker (for 90 days post go-live).
- Pyxis fliers with notification of concentration change and distribution method.

**CAUTION: NEW STANDARD
CONCENTRATION**
Please Verify Pump Settings

Caution norepinephrine concentration standardized to 4 mg/250 mL. Prepare by attaching 4 mg vial to 250 mL bag using orange Vial-2-Bag adapter.

Additional Adult and Pediatric Code Cart Changes

ADULT

- Dopamine Premix - Remove
- D50W Syringe - Add 1 additional syringe

PEDIATRIC

- 4.2% Infant Bicarb - remove from Peds Code Cart Tray
- 8.4% bicarb - Add 1, 50 mEq syringe
- Calcium gluconate - remove from Peds Code Cart Tray
- Calcium chloride - Add 2, 1 gm syringes
- Pediatric Code Sheet - Add
- Dopamine Premix - remove from Peds Code Cart Tray
- D50W Syringe - Add 1 additional syringe

Clinical Reminders

GO LIVE
NOV 4

Vasopressor Concentration Changes - Pediatrics

IV pump and preparation changes

EPINEPHrine

Current Preparation	New Formulation	IV Pump Library Changes	Code Cart Changes
50 mcg/mL [NICU/PEDS] 20mL syringe (1,000mcg/20mL)	20 mcg/mL (5 mg/250mL) PREMIX	New Concentration build	Pediatric Code Carts
50 mcg/mL [NICU] 3mL syringe (150 mcg/3mL)	20 mcg/mL (0.06 mg/3mL) syringe from pharmacy	New Concentration build	
50 mcg/mL [PEDS] bag (25mg/500mL)	20 mcg/mL (1 mg/50mL) syringe from pharmacy	New Concentration build	
	40 mcg/mL (10mg/250mL) Vial 2 Bag	New formulation (260mL total volume in pump)	

norepinephrine

Current Preparation	New Formulation	IV Pump Library Changes	Code Cart Changes
64 mcg/mL [NICU] 3mL syringe	16 mcg/mL (4 mg/250mL) Vial 2 Bag	New formulation (254mL total volume in pump)	Pediatric Code Carts (kit to include 250mL bag, V2B adapter and label)
64 mcg/mL [PEDS] 50mL syringe	16 mcg/mL (0.048 mg/3mL) syringe from pharmacy	New formulation	
64 mcg/mL [PEDS] bag (16mg/250mL)	16 mcg/mL (0.8 mg/50mL) syringe from pharmacy	New formulation	
	64 mcg/mL (16mg/250mL) from pharmacy	No change (266mL total volume in pump)	

phenylephrine

Current Preparation	New Formulation	IV Pump Library Changes	Code Cart Changes
100 mcg/mL [PEDS] Standard 50mL syringe	80 mcg/mL (40mg/500mL NS) from pharmacy	New Concentration build	
	80 mcg/mL (0.24mg/3mL) syringe from pharmacy	New formulation	
	80 mcg/mL (4mg/50mL) syringe from pharmacy	New formulation	
	400 mcg/mL (100mg/250mL NS) Vial 2 Bag	New Concentration build (260mL total volume in pump)	

PEDIATRIC Concentration and formulation changes. Concentration changes affect EPINEPHrine, norepinephrine and phenylephrine. Formulation changes affect EPINEPHrine, norepinephrine and phenylephrine.