



Tuesday Talks with John

CONCENTRATED ELECTROLYTE

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Concentrated electrolytes are considered High Alert drugs due to the elevated risk of causing serious patient harm if used improperly.

I commonly see concentrated electrolytes stored on crash carts, (or emergency carts) in surgical units and outpatient surgical centers.

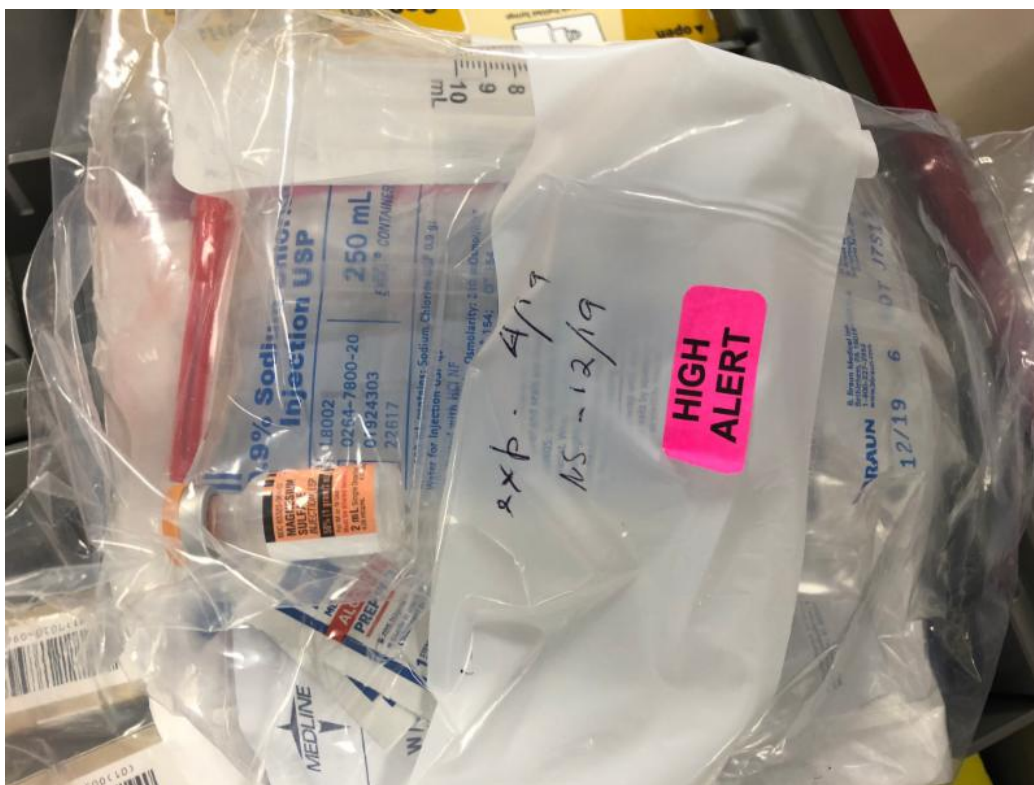
According to the Joint Commission, some of the most commonly used* concentrated electrolytes include:

- Magnesium Sulfate 50%
- Sodium Bicarbonate 8.4%
- Sodium Chloride 23.4% solution
- Hypertonic Premix Saline Solution 3%
- Calcium Gluconate
- **This list is not inclusive of all concentrated electrolytes.*

Because of the heightened risk, *concentrated electrolytes should not be kept in patient care areas where access is not urgently needed.*

Concentrated electrolytes, including Magnesium Sulfate, should be stored in "grab bags" on the code cart. These small kits eliminate precious moments lost gathering supplies during a code AND reduce risk of error since the bags draw attention to special preparation instructions, such as the dilution of Magnesium Sulfate.

The image below shows a magnesium sulfate "grab bag" prepared and ready for use in a crash cart.



SAFETY STRATEGIES

Maintain regulatory compliance and enhance medication safety by using these safety strategies!

1. Evaluate the necessity of the concentrated electrolytes stocked at your facility. Is it necessary to have this drug? Are you able to eliminate it from formulary?
2. If possible, purchase pre-mixed bags of concentrated electrolytes. This greatly reduces risk of medication error and eliminates the need for including dilution instructions.
3. If you are only able to purchase vials, create "grab bags" with the concentrated electrolyte and all materials needed for proper preparation and administration.
4. [CLICK HERE](#) for dilution instructions for Magnesium Sulfate. If your center stocks other concentrated electrolytes and you'd like dilution instructions, contact us for more information.
5. Put a sticker on it. Yes, I know we sticker a lot. But we do it for a reason. Visual indicators are excellent ways to prevent medication errors, as long as we use them appropriately! [Try these stickers from Healthcare Logistics \(pictured above\).](#)
6. During shortages, *especially* when ordering from a new vendor, be sure to double check if your product has a different appearance from what you're used to receiving. Follow appropriate SALAD/ LASA protocol. ISMP released a wonderful article on the topic [HERE](#).

Additional Resources:

<http://www.ihi.org/resources/Pages/Changes/ReduceAdverseDrugEventsInvolvingElectrolytes.aspx>

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[609-313-7572] [JOHN@JDJCONSULTING.NET] [www.JDJConsulting.net]