

Watch Out *for...*

Dextrose-containing solutions when flushing arterial lines

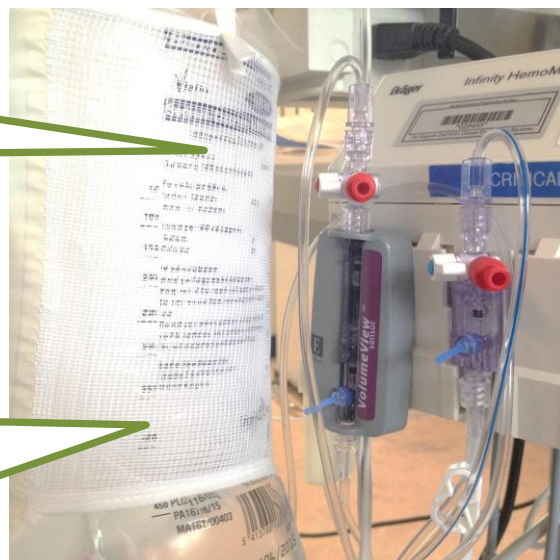
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What Happened?

A dextrose-containing solution was repeatedly used to flush the arterial line of a patient in Bath, UK.¹

This resulted in spuriously high blood glucose readings, excess administration of insulin and hypoglycaemia.

The patient suffered an irreversible brain injury and died.



The Facts:

- Dextrose-containing flush solutions may contaminate blood samples to produce spuriously high blood glucose levels.
(e.g. 0.1ml 5% dextrose contaminant may raise the sample blood glucose level by 12mmol⁻¹).
- < 3 hours of hypoglycaemia can lead to fatal neuroglycopenia²

Protect Your Patients:

- Never use dextrose-containing fluids to flush arterial or central lines.**
(store dextrose-containing fluids separately)
- If a blood result surprises you, think “is this real or an artefact?”**
- Follow your Trust/ Departmental guidelines for checking infusion fluids.**
(review frequently and use transparent pressure bags if possible)

1. Gupta K et al. Accidental hypoglycaemia caused by arterial flush drug error: a case report and contributory cause analysis. *Anaesthesia* 2013, 68, 1179-1187.

2. Leslie R et al. Management of arterial lines and blood sampling in intensive care: a threat to patient safety. *Anaesthesia* 2013, 68, 1114-1119.