Permission to print: Yes
Incident type: Good Catch No Harm Incident
Category: Cardioplegia
Type of incident: Management
Procedure acuity: Elective
Description:

The cardioplegia is delivered via a single pump head with the 1/4 and 1/8 ID tubing placed in the same pumphead and set at 1:4 and wyes lines with colour coded clamps are used to alternate between 1 part solution and 4 parts blood or 4 parts solution and 1 part blood. [The request was made to change] from Del Nido to standard cardioplegia at the last minute and I did not change the clamping system (LivaNova), therefore the cardioplegia was delivered at 4 parts solution and 1 part blood. I first realised the problem as I glanced up to the bag of high k cardioplegia and realised it was emptying really quickly after 25% of the dose had been given. Potassium came back at 7.4. I initiated hemofiltration and potassium came back at 5.8. Dextrose and insulin was given and potassium came down to 4.5. After the cross clamp was taken off, the patient took approximately 20 minutes to return to a rhythm. Bypass was terminated with patient in sinus rhythm.

GOOD CATCH - what we observed:

Observation of the High K Cardioplegia bag early into the initial dose of cardioplegia when I realised what had happened for remedial filtering and the anaesthetist gave insulin and glucose.

What could we do better:

Redone the checklist after the protocol change to re-do the check list when there is a protocol change at the last minute.

Preventive actions:

Region: ANZ
Manufacturer advised: No
Hospital incident filed: No
Ext Authority Advised: No
Patient outcome variance: Nil
Discussed with team: Yes
Commentary:

There have been several recent reports to PIRS-II of incidents relating to changing cardioplegia ratios between Del Nido and 4:1 blood cardioplegia solutions. Updating checklists and checklist processes where differing ratio blood cardioplegia solutions are being used is warrented.

PIRS-II Ed