PIRS 2016 - Drug / Medication

Permission to print:	Yes
Incident type	No Harm Incident
Type of incident:	Management
Catagory	Drug / Medication
Description:	For a CABG case, X-Clamp was put on and 4:1 blood cardioplegia was started antegrade, after 800mls of cardioplegia was shifted to retrograde. The heart kept on fibrillating and we could not achieve asystole. Perfusion supervisor intervened and found that cardioplegia bag was not emptying, [and the] 3/16 line from the cardioplegia was crushed between the tubing guides. For 3 mins only cold blood was delivered without cardioplegia. Once discovered the 3/16 line was taken out from the guide and cardioplegia was restarted. It arrested the heart well.
Preventive actions	Vigilant about the tubing in the raceway not being compromised by the tubing cuffs and placing the crystalloid bags for the cardioplegia solution in plain view
GOOD CATCH - what went	TEAM WORK. Appropriate direct supervision resulted in adjusting the does of cardioplegia to compensate for the underdelivery of the crystalloid component.
Protocol issue	No
Rule issue	Yes
Skill issue	Yes
Team Issue	Yes
Violation	No
Manufacturer advised:	No
Discussed with team:	Yes
Hospital incident filed:	No
Ext Authority Advised	No
Procedure acuity:	Elective
Commentary	

Permission to print:	Yes
Incident type	No Harm Incident
Type of incident:	Management
Catagory	Drug / Medication
Description:	The anaesthetic team asked/announced they were giving protamine. We were still on bypass. This was questioned immediately by the perfusion supervisor. The anaesthetic team immediately realised CPB had not ceased and replied that a maximum of half a ml of protamine might have been administered to the patient by mistake (the surgeon had not asked for protamine and possibly a request for prolene was misheard. This was a particularly busy and noisy time and this was a miscommunication. Blood was immediately drawn up for an ACT. The prior ACT was 581s The resulting ACT was 494s, thus still above the institutional CPB threshold of 480s.
Preventive actions	An immediate ACT was taken but no additional heparing given as minimal if any protamine had reached the patient.
GOOD CATCH - what went	CLOSED LOOP COMMUNICATION and TEAMWORK - the announcement of protamine administration was made prior or as it was being given and this was immediately recognised and acted on by the perfusionists and anaesthetic team compensating for the comms error
Protocol issue	No
Rule issue	Yes
Skill issue	Yes
Team Issue	No
Violation	No
Manufacturer advised:	No
Discussed with team:	Yes
Hospital incident filed:	No
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Incident type	No Harm Incident
Type of incident:	Management
Catagory	Drug / Medication
Description:	At the end of a long and complex case [using Sorin S5 and Connect software] my second perfusionist came in at the end of the case. It just so happened that the second perfusionist noticed that the [flow direction] switch on the [Flextherm] heater cooler [cardio]plegia circuit was not on. I was asked if this was intentional and that when I realized I had given room temperature [cardio]plege instead of cold during the case. In this case only one does of plege was given. We were cooled to 24 degrees so [cardio]plege was given at 22 degrees. The heart stopped quickly. Never questioned temp. The ischemic time was 2 hrs before giving a tepid hotshot. Again we were just coming up to 26 degrees so my water temp was set at 26 ish degrees to be the same temp as patient. The [intentioanl] tepid shot was going in at 22 degrees [data from the data management (Connect) system]. The heart recovered quickly and again I was given no reason to question the temp. I checked my water temp several times to make sure it was set appropriate and never looked at the temp going in. The surgeon kept the heart in ice the entire time. [Possible contributary factoors] Up with a sick child all night, stressed from a parent not doing well after surgery, and felt I needed to make sure not to [attend] due to having been on leave the week before and having relatively recently returned from maternity leave was keen to do cases. The checklist ask to check water flow. I had only checked the waterflow to the patient and ticked it was done. This had been a bit of a delay with extra time taken to put in two arterial lines. I strayed away from my usual practice of going into theatre once anesthesia was ready with all lines and went in before they were finished. This meant my pump was slightly in their way so I only put the pt water lines on and left the plege water lines to put on once there was more room. When I was back in the room I did put the plege water lines on but did not check the water valve was on or flow was on.
Preventive actions	Discussed with the team and tactile confirmation of the cardiplegia heat exchanger temperature (feeling the inlet coupling) as well as announcing the tempertaure at the time of delivery were recommendations. Flow direction software on the heatexchanger displet similar to the patient circuit flow indicator would be useful. (commnuicated to the manufacturer)
GOOD CATCH - what went	The good catch is that the second perfusionist saw this before i came off bypass and used that circuit to muff. I was able to adjust the temp before coming off hence avoiding unintentional colling of the patient immediately post CPB.
Protocol issue	No
Rule issue	Yes
Skill issue	Yes
Team Issue	Yes
Violation	No
Manufacturer advised:	No
Discussed with team:	Yes
Hospital incident filed:	No
Ext Authority Advised	No

Procedure acuity:	Elective
Commentary	