

2024 Coagulation (Protamine) 2

Permission to print:	Yes
Category	Coagulation
Category 2	Protamine
Severity	Good Catch Near Miss
Description:	<p>The protocol in our unit is to turn off pump suckers at 50% protamine administration. One surgeon becomes very upset if he is not ready for suckers to be turned off at this point and will insist on continuing until he is ready for them to be turned off. Sometimes this can be up to full protamine administration. On this occasion, suckers were turned off when approximately 60% of the protamine was administered. Upon pumping out the remaining blood from the circuit, the venous reservoir and oxygenator appeared to be full of large clots (see attached picture) and was very concerning if we had to rush back on bypass. No cell saver was being used. It was a "standard" case and we typically only use cell savers for more complex cases (redo, dissections etc). We had a new set up in theatre ready to be set up for the second case, so would have had to quickly strip the pump and set up from scratch and prime (we set up for the next case in theatre once we get the lines back from the surgeon).</p> <p>If a new set up had to be quickly set up then there would have been ten minutes or so before the patient could have been supported by cardiopulmonary bypass, which was worrying. The clots were pointed out to the surgeon when he handed the lines back and he was unapologetic and not concerned.</p>
GOOD CATCH - what went well	It was very fortunate that we did not have to rush back onto bypass, as there would have been a very real possibility of disaster resulting in a poor patient outcome. I made a point of saying that would have compromised the patient if they became unstable.
What could we do better	Held my ground and let the surgeon know that I was not comfortable to continue the pump suckers beyond 50% protamine, and simply turned them off.
Preventive actions	Insist that suckers are turned off at maximum 50% protamine. I know many units have a much lower threshold for turning off the suckers, unfortunately we do not have the support of the surgeon to do what we know we should be doing
Type of incident:	Management
Duration of incident:	minutes
Hospital incident filed	No
Ext Authority Advised	No
Discussed with team:	Yes
Rule issue	Yes
Protocol issue	Yes
Team Issue	Yes
Violation	Yes
Patient outcome variance	Nil
Commentary	Of note this is the second high level near miss report in the last month of a clotted circuit due to deliberate use of pump suction on surgeon instruction after the

administration of protamine. As pointed out in the commentary on the previous report this in contravention to ANZCP and AMSECT guidelines (1) and negative patient outcome relating to continued use of cardiomy suction after protamine administration in the face of clear standards and guidelines would be difficult to justify.

The team dynamic between the surgeon and perfusionist over the potential hazard in this report does not align with the Royal Australasian Code of Conduct - Working with other Health Care Professionals (2) that states "Safe and effective patient care involves surgeons working closely with other surgeons and healthcare professionals. Surgeons provide leadership and respect the training, knowledge, experience and views of others. ...

A surgeon will

1 seek the involvement of other health care professionals or more experienced colleagues if this will benefit the patient

2 when appropriate, participate in a multi-disciplinary approach with other healthcare professionals for the optimal care of the patient.....

The previous reporters achieved a practice change by emailing the all cardiac surgeons and cardiac anaesthetists with the ANZCP guidelines attached bringing attention to Standard 8.6 "Cardiotomy suction shall be discontinued at the onset of protamine administration to avoid clotting within the extracorporeal support circuit" PIRS2 Ed

1 □ (ANZCP Standard 8.6: ("Cardiotomy suction shall be discontinued at the onset of protamine administration to avoid clotting within the extracorporeal support circuit.") and AmSECT's Standard 12.1 ("Cardiotomy suction shall be discontinued at the onset of protamine administration to avoid clotting within the CPB circuit"5)..

2 https://www.surgeons.org/-/media/Project/RACS/surgeons-org/files/policies/3000-3999/REG-3040_Code_of_Conduct.pdf?rev=923177decf3044c591b25e99bc74d068&hash=8C9733F379F41387D9522AD56965426F

