2025 Air in Circuit - Hypoperfusion

Permission to print:	Yes
Category	Air in circuit
Category 2	hypo / hyper perfusion"
Severity	Good Catch No Harm Incident
Duration of incident:	minutes
Description:	Tricky case (redo) and we had a fem venous cannula with a Y to the SVC. A vacuum assist was prepared beforehand using the Boehringer VAVD controller. I was not told directly our usual set was in stock and when I asked a Adult Perfusionist for a set, they created a set using the tubing from an “cell saver” adaption tubing pack. My patient was in theatre at the time and I just assumed from this action that we did not have our usual VAVD tubing set available. A hole was made in the IVC [unintentionally] during the case which created an airlock. Both lines were completely empty/full of air and when vacuum assist was initiated, I didn't realise the Y-piece connected to the reservoir was clipped off - the two white clips (see picture) were both clipped off to both to the VAVD controller and reservoir vent side. I believed in that moment that vacuum suction was initiated when it was not. This caused the airlock not to be cleared and a second perfusionist walked in shortly after and noticed the clip to the reservoir was still clipped off. The option of filling the line back up either at the table end or through the 3-way tap was the next option. But thankfully we managed to get drainage quickly with the VAVD. During the incident we were on sucker bypass. The patients NIRS did not drop by much, and neither did the SVO2 and the lowest MAPs was in the 30s [while flow was reduced]. The entire incident after the surgeon made the hole and being back on full bypass was about 4 minutes. We were at 32 degrees at the time. I spoke to the anaesthetist who was looking after the patient [after the event] she said the patient is doing well.
GOOD CATCH - what went well	A second perfusionist was called and walked in shortly and spotted the issues after the incident occurred.
What could we do better	A standard (LivaNova) vacuum line with moisture trap could have been used instead
Preventive actions	Ensure a LivaNova vacuum line is available. We have had a discussion within our team that normal VAVD sets should be used first.
Type of incident:	Management
Timing of incident:	CPBhypothermic
Discussed with team:	Yes
Hospital incident filed	No
Ext Authority Advised	No
Knowledge issue	Yes
Protocol issue	No
Rule issue	Yes
Skill issue	Yes
Team Issue	Yes
Violation	No

Procedure acuity: Elective

Patient outcome variance Nil