

2021 electrical/electronic

Permission to print:	Yes
Category	Electrical / electronic
Incident type	Good Catch No Harm Incident
Type of incident:	Equipment
Duration of incident:	seconds
Description:	<p>The following incident occurred one hour into the bypass run of a CABG procedure (rewarming phase, 36 degrees) . The air-emboli alarm of the Sorin S5 (LivaNova) situated on the arterial line distal the FX25 oxygenator was activated and stopped the pole-mounted arterial pump. The arterial and venous lines were immediately clamped and the arterial line checked for air. No visible air was present so the bubble detector cover was closed and the arterial line clamp removed. The arterial pump would not restart, despite an attempt to use global override (two button system). The perfusionist commenced hand cranking and called for assistance. Fault in motor controller (429) was noticed on display. We cannot determine whether the error 429 appeared before or during hand cranking and it could not be cleared. The emergency pump (not pole-mounted) was placed on the floor, powered and activated, the pump boot transferred and normal CPB resumed. A downtime of about 30 sec was noted. The case continued with no further issues. The roller pump was sent to Germany for review of the Design History Record however any deviations relevant to the issue could not be found. In addition, the troubleshooting by the manufacturer was complicated because the provided readouts were corrupted and consequently no information could be retrieved.</p>
GOOD CATCH - what went well	<p>The transition from line clamping, checking for air, identifying issue and hand cranking was executed efficiently, minimising downtime. The spare pump on the console ensures that a backup is always available regardless of where the heart lung machine is located</p>
What could we do better	<p>Rebooting heart lung machine to clear fault and possibly a powered spare pump (also pole-mounted?) to avoid having to plug the emergency pump into the S5 console however the required pole space also makes such a back-up unlikely.</p>
Preventive actions	<p>Increased frequency of practice drills. Fault in motor controller (429) can be cleared by rebooting heart lung machine which may be faster than powering up an emergency pump.</p>
Hospital incident filed:	Yes
Ext Authority Advised	No
Discussed with team:	Yes
Manufacturer advised:	Yes