

2026 Air embolism - bubble alarm

Permission to print: Yes

Category Air embolism

Severity Good Catch No Harm Incident

Description: During an adult bypass case, approximately 15 minutes post cardioplegia dose and at a steady state at 32°C with no recent changes to flow the arterial bubble alarm that is placed low on the arterial line, after the oxygenator and before the recirculation line on an ESSENZ pump sounded and the pump stopped. The Perfusionist clamped the arterial line and alerted team to bubble alarm, looked for air and found no visible bubble. Two additional Perfusionists were in the room by this time after being notified of bubble alarm. Communicated to the team that we were off bypass and recirculated through arterial circulation line as a precaution. During this time the surgeon noticed air around the connector of his arterial cannula. Surgeon proceeded to de air through luer lock on the connector with a syringe. When disconnecting the syringe, the plastic tip broke off into the luer lock on the connector, making in unusable. New connector was used; arterial line was flushed up to the table and reconnected. Bypass was re-established. Total time off pump was 4 mins @ 32°C Blood gasses were closely monitored. Rest of case ran smoothly, patient weaned from bypass successful and transferred to ICU and has had an uneventful recovery. We have been unable to explain the origin of air seen at the cannula.

GOOD CATCH - what went well Bubble alarm sounded and pump shut off to prevent air embolism to brain - surgeon good catch noticed that there was air in connector - team communication and urgency was done well to prevent any further downtime

What could we do better Perhaps could have had a closer inspection of air in the circuit / oxygenator before recirculation occurred to confirm if this was a false alarm or if the air was real - better understanding from team that arterial line and cannula should be visually checked before going back on. - Not breaking the connector would have allowed quicker establishment of bypass.

Preventive actions Logged incident and will monitor if bubble sensor is faulty

Type of incident: Not Entered

Manufacturer advised: No

Discussed with team Yes

Hospital incident filed: No

Ext Authority Advised No