Near Miss or Accident: Accident
Type of incident: Equipment
Category: Air in circuit
Knowledge Error: No
Protocol issue: No
Rule Error: No
Skill Error: No
Team Issue: No
Violation: No
Chance Chance event: No

Description: Terumo oxygenator that has a broken fibre. CX*RX25RE #311574 Primed pump circulating and HLM set up in theatre for first case. I noticed air entering the circuit via the arterial outlet into the arterial line when the pump was turned off. Hence air was being dragged back up into the arterial line, luckily trapped by the arterial filter and NOT on CPB. Originally we thought maybe there was a hair line crack in the casing, but under positive pressure the casing doesn’t leak. It was only when the pump was turned off, creating a negative pressure that bubbles of air were being produced from the membrane fibres.

Contributing factors: broken fibre in the membrane
Corrective action: wheeled in new pump and new circuit, luckily spotted when there was time prior to CPB.
Preventative action plan: informed Terumo. Notified team to be aware of possible air entrainment prior to bypass.
   1. if using a combined oxygenator/arterial filter would we have picked this up, as air may have just gone back up the line into the table sash. 2. If an emergency bring the pump in, and run on CPB in a hurry, may also not have picked it up

Manufacturer advised: No
Discussed with team: Yes
Ext Authority Advised: No
Patient outcome variance: Nil