Permission to print: Yes
Incident type: Near Miss
Type of incident: Equipment
Category: Gas Supply
Description: [Trainee perfusionist] Was checking the gas flow while doing the pre-operative checks on S5 in operating theatre and the bobbin was not rising in the flowmeter [positioned at the vaporiser inflow as a safety device to confirm no leak at the vaporiser - flow control is via an electronic blender] as it should have to confirm the correct flow). So I increased the sweep gas (after checking gas was coming out the outlet tubing connecting to the oxygenator) and the flowmeter inflow connector popped out of the inflow port. This repeated 5 times, and the bobbin was still not rising in the flowmeter either. It seemed that quite a bit of pressure kept pushing out the flowmeter unit and did not seem to actually enter the flowmeter itself. It could have been a kink in the gas line tube, or a blockage in the tubing or flowmeter. Asked for assistance with the issue and when the inflow connector as replaced and the gas flow was turned on, the bobbin did rise but was slightly overreading the flows (by 0.5 ml/min). This was tried a few times at different flows and the result was consistently the same [slight over read].

Preventive actions: It was decided that in the event of this issue arising while pumping a case, the best thing to do would be to cut both gas lines entering/leaving the vaporiser and connect them to each other using a 1/4 1/4" connector. As this would take the vaporiser out of the gas pathway, anaesthesia would be notified and the patient would be kept anaesthetised using propofol infusion. In the event more time was required to solve the issue, the gas line could just be directly attached to an oxygen cylinder so as to maintain gas flow. Subsequently the flow meters have been removed from the vaporiser inflow as they were more problematic than rare vaporiser gas leaks.

GOOD CATCH - what went right: TEAMWORK. This was managed as real a problem solving exercise with a decision to continue with the procedure forewarned of a possible gas supply failure but with a dual level contingency plan in place.

Protocol issue: No
Rule issue: No
Skill issue: No
Team Issue: Yes
Violation: No
Manufacturer advised: No
Discussed with team: Yes
Hospital incident filed: No
Ext Authority Advised: No
Procedure acuity: Elective

Commentary: Tuesday, 24 January 2017