After coming off bypass and just as protamine was starting an increased amount of bleeding occurred - the arterial line was still in situ and the perfusionist was able to fill but soon got into the situation where the reservoir was mainly crystalloid, and the cell saver reservoir was becoming full. The CATS SMART machine was set up and had primed normally with no errors however at the time when we really needed the volume to be available for re-infusion there was an issue - the bowl was able to fill with scavenged blood but there was no movement of the washed/concentrated blood into the bag - we changed to emergency mode - but the problem persisted no blood was being pumped into the bag and the reservoir was not emptying. No errors or alarms. The anaesthetist needed to emergently transfuse a unit of donor PRBC and then we quickly clamped off the cell saver reservoir while we inserted a new autotransfusion set/bowl. The new bowl worked and we were then able to process and infuse the patient’s own blood without further need of donor blood.

After the case we examined the set and discovered a fault in the tubing that would carry the concentrated blood to the bag - it was narrowed/crimped in appearance - leading to the priming with plasmalyte part going ok with no errors but being too restrictive to allow the much more viscous concentrated red cells to pass up into the bag - leading to the failure to process the patient’s scavenged blood.

GOOD CATCH - what went well

Able to maintain patient hemodynamics while new consumable was inserted - recognition that troubleshooting was not working and that a change of consumable was required. Good communication with team while sorting out the issue. Two further defective kits identified.

What could we do better

In hindsight a closer inspection of the consumable for kinked tubing obviating and avoidable transfusion.

Preventive actions

Consumable was kept and returned to the company. A Riskman and product complaint form filled out and submitted. Every subsequent set moving forward is examined in the area where problem was detected - another faulty set was observed the next week at time of set up and not used - preventing a similar issue from occurring.