

A Serious Kink in the System

A participating hospital just reported an adverse event caused by a problem with the packaged irrigation cassette it uses during phacoemulsification cataract extractions.



Why we are sharing this information: We have learned at least one important lesson from this event – when you find kinked irrigation tubing, do not use it. Manually un-kinking such a tube is likely to fail. The tube could re-kink, and is therefore unreliable.

What happened: For a routine cataract extraction, the phacoemulsification probe was placed in the patient's eye, along with an irrigating cannula that was connected to a cassette containing saline solution. When opening the pump cassette package the nursing staff noticed a kink in the tubing line that runs from the solution bag into the pump cassette. They straightened the tubing to allow fluid flow to prime the cassette. During the procedure the kink re-formed, so only a minimal amount of irrigating solution reached the patient (the administration pump does not detect fluid pressure changes, only the presence or absence of solution). The flow was reduced so significantly that it caused the pressure in the eye to drop and resulted in the anterior chamber collapse. The collapse of the anterior chamber caused the probe to enter the posterior chamber causing a hole from the probe tip.

Initial actions (of reporting hospital):

- Additional packages (12 in all) were opened and checked by staff in preparation for other scheduled procedures that same day. One other package with a different lot number was found to contain tubing with the same severe kink;

- Manufacturer was contacted to inform them of the problem and they replaced the entire stock so it is unknown how many other packages contained the kinked tubing.

Recommendations (from the reporting hospital):

- Carefully observe the integrity of all supplies upon opening;
- Test to ensure that all equipment and supplies are not defective prior to use;
- If you find a kinked tube, do not use it;
- Implement consistent training procedures for all staff when opening any package supplies. Review training protocols after upgrading or changing supplies.

Contact us!

If your hospital has experienced similar problems with packaged irrigation cassettes, please let us know. If you have more general observations, lessons, or warning about the use of other packaged supplies please call Leslie Ray at 503.224.9227. We want to encourage a discussion. In addition, we can connect you to other experts willing to analyze your particular situation. All information will be kept confidential.