Laboratory evaluation of the buddy lite™ and enFlow™ fluid warmers

Summary:

Maintenance of normothermia is crucial to avoid patient morbidity. Newly released fluid warming devices have become smaller in size, but this change might impair efficacy. We performed an evaluation of the buddy lite™ and enFlow™ fluid warmers. We measured inflow and outlet temperatures of the devices at flow rates between 25 and 100 ml.min−1 using saline at room temperature or cooled to 10 °C. At a flow rate of 25 ml.min−1, the outlet temperature of the buddy lite was significantly higher than that of the enFlow (p < 0.0001), but at flow rates of 75 and 100 ml.min−1, it was significantly lower (p < 0.0001). This pattern was the same for both room temperature and cooled saline. There was a significant drop in the temperature of saline along the length of a 1-m outflow tube. We conclude that both devices provide effective fluid warming at a low flow rate, although the heating capability of the buddy lite is limited at high flow rates.