Discussion

Driven by the environmental and financial impact of wasted Propofol, changes were made to decrease waste by providing smaller bottles and by educating providers on the amount of drug needed for each scan. A significant difference in wasted propofol was achieved and sustained over 6 months. For both environmental and financial reasons, this program was well-accepted in our department.

Reducing medication bottle volume has been shown to be an effective way to decrease waste. Additionally, the Propofol table resulted in much positive feedback regarding decreased waste at the conclusion of each scan, when before there was little regard for this concern. This culture shift is an important step in future sustainability initiatives.

Methods

IRB approval was waived. Baseline data from pharmacy tray refills was collected, actual patient usage was retrieved via electronic anesthesia records and a monthly baseline waste fraction was calculated. After baseline data was established, the 100ml bottles of propofol were removed and replaced with 50ml bottles. Simultaneously, a propofol usage table incorporating the volume needed for a given patient’s weight and duration of scan was presented to the anesthesia imaging staff and placed at each workstation (Fig 1).

Results

The baseline waste fraction of propofol was 54%, (approximately10,000 ml/month, $3750/month). The interventions were well-tolerated and effective. Post-interventions, the waste fraction decreased to 25%, a 50% reduction in waste and an average monthly savings of $2500 (Fig 2).

References

5. Versichelen L; Sanson M; Firoz K; Rudy G. Cost Comparison of Propofol vs Sevoflurane According to BIS-monitored Anesthesia. Anesth Analg 1999;89:505

Learning points

Reducing pharmaceutical waste has environmental and fiscal benefits

Meaningful change in behaviour can sometimes be achieved by simple means. Behaviour change is an important first step in many sustainability initiatives.