WAKE UP SAFE®

The Pediatric Anesthesia Quality Improvement Initiative

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Warning: Risk of acetaminophen overdose

Wake up Safe has received 4 case reports of acetaminophen overdoses, at least two of which were due to multiple doses given by multiple practitioners who were not aware of other doses, and one of which led to liver failure. The advent of intravenous acetaminophen increases the risk of overdose because intravenous administration during anesthesia will not register on most hospital electronic medical records (EMR).

Institutions should develop procedures to prevent excessive acetaminophen administration. Anesthesiologists must be aware of what has been given preoperatively, either by parents at home or by nurses in the preoperative area. PACU nurses should be aware of administration of acetaminophen during anesthesia, and surgeons and hospital nurses must be aware of what was given during the perioperative period. Finally, parents must have clear instructions about dosage and timing of acetaminophen for post-operative analgesia when patients are discharged.

Ideally EMRs would be able to indicate what drugs were given during anesthesia but many institutions have reported that their information systems do not communicate this information to the PACU staff. Until EMRs can provide that information, one potential intermediate step would be to ensure that information regarding intraoperative administration of acetaminophen be communicated to the PACU staff and that this be documented in the medication administration record. A further refinement would involve programming of the EMR to ask if acetaminophen was given intraoperatively when prescribing acetaminophen for post-operative analgesia.

Finally, parents and staff should be counseled about an additional potential source of overdose from co-administration of cold remedies that contain acetaminophen.

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