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### **What Is Needed To Prove Pediatric Medication Error Malpractice?**

Medication errors are a common cause for medical malpractice claims involving pediatric care providers. According to The **Joint Commission Sentinel Event Alert Issue 39**, April 11, 2008, they are also a significant cause of preventable adverse events.

Experts agree that medication errors have the potential to cause harm within the pediatric population at a higher rate than in the adult population. For example, medication dosing errors are more common in pediatrics than adults because of weight-based dosing calculations, fractional dosing (e.g. mg vs Gm; milligram vs gram), and the need for decimal points in medication dosages. Because weights of newborns vary greatly it is imperative that dosing be correctly calculated for the infant's body weight. Many phenomena including multi-organ incident secondary to intrapartum hypoxic-ischemic insult can affect the function of the kidneys and drug elimination. In appropriate cases drug levels should be followed, especially with toxic drugs like gram-negative antibiotics. It is also important to carefully monitor IV lines at appropriate intervals so as to eliminate or reduce the risk of extravasation injuries (leakage of fluid, such as a medication, outside of the blood vessels).

The Joint Commission noted that several factors make pediatric patients particularly vulnerable to potential medication errors:

- The need to make a series of pediatric-specific calculations for medications that primarily are used for adults.
- The lack of training necessary to orient staff to specific needs of pediatric patients
- The fact that children may be less tolerant of medication errors due to immature organ systems
- The inability of many children to effectively communicate with

care providers regarding signs or symptoms of adverse events.

A variety of medication errors have been reported including:

- Improper or wrong dose
- Incorrect duration of medication use
- Omission errors such as a failure to provide a specific medication
- Unauthorized/wrong drug prescribed or administered
- Prescribing error
- Wrong administration technique or time
- Incorrect drug preparation
- Wrong route of drug administration

Risk reduction strategies include:

- Developing pediatric-specific formulary systems (the selection of drugs that are considered to be most useful therapeutically and the prescription of dosages that provide for the most effective drug therapy)
- Implementing standardized protocols (written instructions detailing the care of pediatric patients and/or assisting the pediatrician or health provider in the performance of procedures)
- Limiting the number of concentrations and dose strengths especially with regard to high alert medications (drugs that have a heightened risk of causing significant patient harm when used in error).
- Establishing pharmacy oversight in verifying, dispensing, and administering medications to neonatal and pediatric patients
- Pediatricians should work together with hospital administrators to help develop effective programs for safely dispensing medications and creating an environment of medication safety.

Although specific strategies are needed to prevent error in pediatric cases, as in all patients, it is vitally important that the "5 Rights" be observed:

- Right patient
- Right medication
- Right dose
- Right route

- Right duration

When any doubt exists as to whether all of these criteria are met, consultation with the attending pediatrician and hospital pharmacy is appropriate.

A mistake or error in any of the above considerations may lead to pediatric patient injury, and a resulting malpractice action. Evidence of the mistake or error may be admissible in evidence during litigation to prove pediatrician malpractice.

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*Mr. McKeen currently sits on the executive boards of the Michigan Association for Justice (MAJ) and the American Association for Justice (AAJ), and formerly served as chair of the AAJ Professional Negligence Section, Medical Negligence Exchange Group, and Birth Trauma Litigation Group (BTLG).*

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