Guidelines for Use of Acetaminophen (Tylenol)

Recommended Neonatal Dose, Route, and Interval

Dose schedule:
10-15 mg/kg/dose
Term Infants: every 6 hours
Preterm infants ≥ 32 weeks Postmenstrual Age: every 8 hours
Preterm infants < 32 weeks Postmenstrual Age: every 12 hours

All doses given PO as liquid or PR as suppository

Primary Indications

1. Non-narcotic analgesic - temporary relief for mild to moderate pain.
2. Antipyretic for relief of fever.
3. Minimizes incidence of fever or pain at injection site in infants receiving DTaP and Prevnar vaccinations.

Possible Adverse Reactions (seen with prolonged use, high dose)

1. Hepatic toxicity - toxicity even seen in low doses in preterm infants and those receiving prolonged parenteral nutrition.
2. Thrombocytopenia and neutropenia.
3. Allergic skin pruritic rash.
4. Vomiting and abdominal pain usually occur within 2 - 3 hr after administration of toxic doses.
5. Severe poisoning - CNS stimulation followed by CNS depression, hypothermia; low BP; and circulatory failure.

Treatment of serious Acetaminophen Toxicity:

N- Acetylcysteine (Acetadote): N- Acetylcysteine should be continued until the clinical and biochemical markers of hepatic injury improve, and acetaminophen concentration is below the limits of detection.

Contraindications and Precautions

1. Contraindicated in patients with hypersensitivity to acetaminophen.
2. Caution use in patients with anemia or cardiac, pulmonary, renal, or hepatic disease

Nursing Implications

1. Acetaminophen is intended for temporary use only - should not be given for more than 4 - 5 days without physician reassessment.
2. Severe hepatic damage is sometimes not apparent until several days after overdosage.
3. Give oral dose with the nearest feed to reduce GI upset or as needed.

Special Considerations and Calculations

1. Peak effect occurs approximately 60 min. after oral dose.
2. Plasma half life is 2 - 5 hours in neonates, may be prolonged following toxic doses or in patients with liver damage
3. Absorption after rectal administration is delayed and incomplete - inaccurate dosing may occur with rectal administration because of unequal distribution of acetaminophen in suppositories.
4. Acetaminophen toxicity - check plasma or serum acetaminophen concentration and baseline Prothrombin time, INR, BUN, blood glucose, serum AST (SGOT), ALT (SGPT), bilirubin, creatinine, urinalysis and electrolytes before initiating therapy.

References:
1. Neofax 2009

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Samir Alabsi, MD
Kelli DeVore, Pharm. D, BCPS
Rebecca Willson MSN, NNP-BC