
 **Analgesia for skin-breaking procedures in newborns and children** (*CMAJ* 2008; 179(1):11-12)

Opioids, such as fentanyl and morphine, form the mainstay of pediatric pain management, but they may not be effective and safe against injury-induced acute pain in newborns or children. Two randomized controlled trials evaluated the efficacy of nonpharmacologic approaches to treating acute pain in newborns and children. Taddio, *et al.* report that sucrose given orally reduced pain caused by venipuncture in newborns but did not reduce the pain caused by intramuscular injections. Farion, *et al.* report that a vapocoolant spray quickly and effectively reduced pain caused by intravenous cannulation in children and was associated with increased success in the first attempt at cannulation.


COMMENTS The availability of safe and effective nonpharmacologic analgesia that can be used repeatedly for acute pain in newborns or children would cause a paradigm shift in the management of pediatric pain. Perhaps different combinations of nonpharmacologic approaches in specific populations may be more effective than either modality alone.

 **Extended nevirapine therapy for prevention of parent to child transmission of HIV** (*Lancet* 2008; 372: 300-313)

In three trials from Ethiopia, India, and Uganda, participants were randomly assigned to receive either single-dose nevirapine (200 mg to women in labor and 2 mg/kg to newborns after birth) ($n=1047$) or 6 week extended-dose nevirapine (200 mg in labor and 2 mg/kg to newborn babies after birth plus 5 mg daily from days 8-42 for the infant) ($n=977$). The primary endpoint was HIV infection at 6 months of age in infants who were HIV PCR negative at birth. At 6 months, 87 children in the single-dose group and 62 in the extended-dose group were infected with HIV (relative risk 0.80, 95% CI 0.58-1.10; $P=0.16$). At 6 weeks of age, 54 children in the single-dose group and 25 in the extended-dose

group were HIV positive (0.54, 0.34-0.85; $P=0.009$).

COMMENTS Although a 6-week regimen of daily nevirapine might be associated with a reduction in the risk of HIV transmission at 6 weeks of age, the lack of a significant reduction in the primary endpoint-risk of HIV transmission at 6 months-suggests that a longer course of daily infant nevirapine to prevent HIV transmission via breast milk might be more effective.

 **Protective efficacy of standard Edmonston-Zagreb measles vaccination in infants at 4.5 months** (*BMJ* 2008; 337:a661)

This study examined the protective efficacy of measles vaccination using Edmonston Zagreb vaccine in a randomized clinical trial on 1333 infants aged 4.5 months in a urban area in Guinea – Bissau. 28% of the children tested at 4.5 months of age had protective levels of maternal antibodies against measles at enrolment. After early vaccination against measles, 92% had measles antibodies at 9 months of age. A measles outbreak offered a unique situation for testing the efficacy of early measles vaccination. During the outbreak, 96 children developed measles; 19% of unvaccinated children had measles before 9 months of age.

COMMENTS The current measles vaccination policy is based on children born to naturally infected mothers as such children may not lose protection from maternal antibodies until around 7 to 9 months of age. The situation has changed since the 1980s with the introduction of measles vaccination. In low income countries, maternal antibody levels against measles may be low and severe outbreaks of measles can occur in infants before the recommended age of vaccination at 9 months. Outbreaks of measles may be curtailed by measles vaccination using the Edmonston-Zagreb vaccine as early as 4.5 months of age.

K Rajeshwari,
drkrajeshwari@hotmail.com