## Pain in Children

## Stefan J. Friedrichsdorf, MD, FAAP

Children's Hospitals and Clinics of Minnesota, Minneapolis, MN (USA); University of Minnesota, Minneapolis, MN (USA)

Pain experiences, including acute and chronic, are common in infants, children, and adolescents. Data from children's hospitals reveal that pain in pediatric patients is common, under-recognized and under-treated. A recent systematic review showed that neonates admitted to intensive care units frequently suffer through an average of 7 to 17 painful procedures per day, with the most frequent procedures being venipuncture, heel lance, and insertion of a peripheral venous catheter. In the vast majority of infants no analgesic strategies are employed.[33] In addition, children with serious medical conditions are exposed to frequent painful diagnostic and painful procedures (e.g., bone marrow aspirations, lumbar punctures). Furthermore, even healthy children have to undergo significant amounts of painful medical procedures throughout childhood: Vaccinations are the most commonly performed needle procedure in childhood, and pain is a common reason for vaccine hesitancy.

Exposure to severe pain without adequate pain management has negative long-term consequences, including increased morbidity (e.g., intra-ventricular hemorrhage) and mortality. Exposure to pain in premature infants is associated with higher pain self-ratings during venipuncture by school age and poorer cognition and motor function. Research has shown that exposure to pain early in life has long-lasting consequences in terms of increases in the risk for developing problems in adulthood (chronic pain, anxiety and depressive disorders), adequate management of infant and child pain is imperative.

This presentation will discuss evidence-based strategies to assess, prevent and treat pain in hospitalized children.