

**THE EFFICACY AND SAFETY OF DEXMEDETOMIDINE IN SEDATING CHILDREN AGED 1-18 YEARS OLD UNDERGOING IMAGING PROCEDURE: A SYSTEMATIC REVIEW AND META-ANALYSIS**

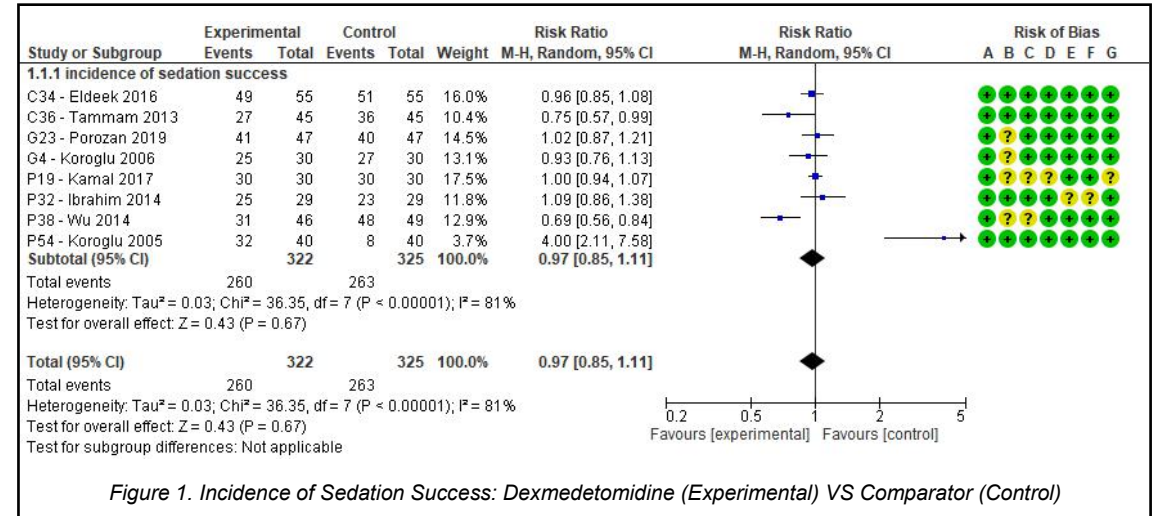
**Johndilyn Estroso, MD, DPBA, Ana Maria de la Cerna MD, DPBA  
Philippine Children’s Medical Center**

**Background:** Demand for pediatric imaging studies is increasing. To achieve high quality image, sedation is required.

**Objective:** To determine the efficacy and safety of dexmedetomidine use in pediatric procedural sedation in terms of sedation success and incidence of adverse events.

**Methods:** The initial search from 3 electronic databases yielded 1,951 articles. After screening for eligibility, 8 randomized controlled trials were included for full-text review and analysis.

**Results:** Dexmedetomidine showed no significant difference in the incidence of sedation success compared to other agents (RR= 0.97, 95% CI [0.85, 1.11], P = 0.67). Although dexmedetomidine showed slower onset of sedation (MD= 3.23 min, 95% CI [-1.73,8.19], P= 0.20) and longer recovery time (MD = 4.87 min, 95% CI [-0.47, 10.19], P= 0.07), it was not statistically significant. There was lesser incidence of adverse events with dexmedetomidine over other agents (RR = 0.83, 95% CI [0.36, 1.93], P= 0.67).



**Conclusion:** Dexmedetomidine can be safely used as an alternative in providing adequate sedation for children older than 1 year old.

**Recommendation:** Explore the other uses of dexmedetomidine as adjunct to analgesia or administration using other routes is recommended.

**Keywords:** dexmedetomidine, pediatric, procedural sedation, imaging