Propofol-based sedation by intensivists provides an effective and safe sedation for pediatric outpatient flexible bronchoscopy

**Introduction**: Flexible fiberoptic bronchoscopy remains an invaluable tool in the evaluation and management of pediatric respiratory disease. Children often require sedation for this procedure due to their development capabilities to improve success and tolerance of the procedure. Many sedation regimens had been used with various efficacy and side effects. At our institution, our intensivists-based procedural sedation team performs deep sedation to assist pulmonologist sedating these patients using propofol mainly.

**Methods**: Retrospective chart review from March 2007 to September 2013 was performed. A total of 458 patients were sedated using propofol only or propofol and ketamine 0.5mg/kg (P+K). Adverse events; Hypoxemia defined as a drop is SpO2 <88%% and Hypotension defined as a drop in mean BP by 20% from the starting mean BP or two SD below normal BP for age were recorded. Patients were compared in three age groups; infants, toddlers and children > 3 years. Also results were compared between the two regiment of sedation using propofol only and (P+K). Procedure time and time to discharge were also recorded.

**Results**: 99% of the procedures were successfully completed. Four cases were stopped early due to significant hypoxemia needing intervention. Average procedure time and time to discharge was 11 min and 37 min respectively. Incidence of hypoxemia and hypotension was 8.7% and 23% respectively. Infants have a significantly higher incidence of hypoxemia. Also, Propofol only regimen resulted in higher incidence of hypotension compared to the P+K. No differences in propofol dose or recovery time based on either the sedation regimen or the age groups.

**Conclusion**: Children of almost all ages can be successfully and effectively sedated for flexible fiberoptic bronchoscopy via an intensivist-run sedation team using propofol only or P+K regimen.