

## **Alternative Medicine Use in Pediatric Ambulatory Surgery Patients**

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**Introduction:** Patient demand for and acceptance of alternative medicines and other “unconventional therapies” is growing. It has become essential for health care practitioners to be aware of alternative medicine use in patients and to understand the use and potential hazards associated with the use of herbal preparations, vitamins, and other supplements. The majority of studies addressing the incidence of alternative medicine use and potential complications of alternative medicine use in patients undergoing anesthesia have been performed in adults. (1-3) Few studies have been done in pediatric patients; most of these reports are not specific to surgical populations and are found in the pediatric or emergency medicine literature. (4,5) This study was undertaken to determine the rough incidence of alternative medicine and nutritional supplement use in pediatric ambulatory surgery patients.

**Methods:** Following approval of the institutional review board, a one page survey concerning alternative medicine and nutritional supplement use was distributed to the parents of children between the ages of 0 (newborn) and 12 years who presented to the ambulatory surgery center. The surveys were distributed over approximately a one-year period. Parents were asked to indicate if their child was taking any of 18 listed herbal medicines or supplements, the frequency of administration, and the intended purpose of the alternative medicine or supplement.

**Results:** Fifteen hundred (1500) completed surveys were returned by parents over approximately a one year period, during which approximately 6000 children in the 0-12 year old age range presented for ambulatory surgery. Perhaps unsurprisingly, the most commonly indicated alternative medicines and supplements were multivitamins, iron, and single-vitamin products such as vitamins A, C, and D. Significant numbers of patients were reported to have been recently taking the alternative medications aloe, echinacea, garlic, and melatonin. Notably, in this large series there were no patients reported as taking the agents St. John's wort, ephedra, valerian root, or kava.

**Discussion:** The majority of studies on the prevalence of use of herbal medications, vitamins, and supplements as well as the incidence of potential complications of anesthesia in patients receiving herbal medications have focused on adults. Several investigations in the pediatric and emergency medicine literature have identified the use of a variety of herbal or other alternative medications in children. This study attempted to identify the types and relative frequencies of alternative medication use in pediatric patients presenting for ambulatory surgery.

Because completion of this survey was voluntary, the true incidence of alternative or herbal medication use in pediatric surgical outpatients cannot be determined in that the completed and returned surveys may not accurately represent the entire population of children who underwent outpatient surgery at this institution during this period. However, the results do indicate the relative frequencies and age distributions of herbal and supplement use in children from ages 0-12 years. The study also demonstrated several difficulties in attempting to determine the incidence and nature of alternative medication or supplement use. First, many food products are marketed as containing supplements of vitamins and minerals—how should consumption of such products be treated in assessments of supplement use? Second, many herbal therapies and supplements contain combinations of agents, sometimes in unknown quantities or compositions—how should these products be assessed?

The study did reveal that approximately 40% of survey respondents reported some form of herbal medication or supplement use in their children. Several herbal agents that are relatively commonly used by adults were not reported as used in this pediatric surgical population.

### **References:**

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