

# The Safety of Nurse-Led Sedation Service for Auditory Brain Response Testing with Chloral Hydrate

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**Introduction:** There are growing numbers of pediatric procedures requiring sedation outside the operating room. Among them are auditory brain response (ABR) tests. Our department of anesthesiology established nurses- led pediatric sedation service. A sedation protocol was established and approved, and experienced pediatric critical care nurses have been trained accordingly. We retrospectively report our experience with nurses led sedation using chloral hydrate (CH) in children undergoing ABR.

**Methods:** Data on all pediatric patients undergoing sedation for ABR between January 2014 and December 2017 were retrieved from their medical charts. All children were given 60-75 mg / kg CH. Patients with ASA 1-2 were sedated by nurses and those with ASA 3 - by anesthesiologists.

**Results:** 1386 children age  $13.3\pm 8.8$  months old were included. They were classified and divided by ASA score: 1-2 and 3. Time to sleep induction was  $30.6\pm 22$  minutes and sleep duration was  $103\pm 41$  minutes for both ASA groups. For 98.7% children, the sedation was uneventful and the ABR examination successfully performed. Failure to sedate occurred in 17 (1.2%) children. Adverse events occurred in 9 patients (0.6%), most of them is ASA group 3. The events required future monitoring but no other medical intervention

**Discussion:** Sleep duration and sleep Induction were not different between the ASA groups. We found that sleep deprivation promotes sleep and there were positive correlation between age and sleep induction and negative correlation between ages and sleep duration. We conclude that Chloral hydrate administered by sedation nurse in this setting is safe and effective for ASA 1 and 2 children requiring sedation for ABR testing. Additionally CH is a safe alternative for deep sedation by anesthesiologists .

## Refs:

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