

## Five-Year Review of Patients Presenting with Non-Accidental Injury to a Children's Emergency Unit in Singapore

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### Abstract

**Introduction:** There is an increasing trend of physical child abuse cases reported in Singapore. Children presenting to the Emergency Department with injuries require a high index of suspicion for clinicians to distinguish those that are abusive in nature. **Materials and Methods:** A retrospective study of children with diagnosis of NAI presenting to KK Women's and Children's Hospital (KKH) from June 2011 to May 2016 was conducted. **Results:** There were 1917 cases reported from 1730 subjects, of which: 8.8% of subjects had repeat visits; 55.2% of cases were male; and mean age was 7.69 years. Racial demographics were: Chinese 45.5%, Malay 33.4%, Indian 15.4% and Others 5.9%. The most frequent injuries sustained were head and neck (50.8%), limbs (32.2%), and chest (5.7%). Of the type of injuries, 55% had contusions, 21% had cane marks, 16% had lacerations, 4.4% had burn marks and 1% sustained fractures. Males were more likely to be caned ( $P < 0.001$ ); 54.9% of cases were admitted and 38.9% were discharged. Cases that presented without a parent ( $P < 0.001$ ), were known to Child Protective Service ( $P < 0.001$ ), or had a history of parental substance abuse ( $P = 0.038$ ), mental illness in caregiver ( $P = 0.021$ ), or domestic violence ( $P < 0.001$ ) were more likely to require admission. **Conclusion:** Analysing these factors provide a better understanding of the presentation of NAI cases, including 'red flags' and vulnerable groups who should have better protection.

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**Key words:** Physical abuse, Presentation of child abuse, Risk factors of child abuse

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