

FALLS FROM A HEIGHT: OUTCOMES AND PREVENTION

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Aim: Falls from a height is the second commonest mechanism of injury in paediatric trauma. This study aims to evaluate the consequences/sequelae of injuries sustained and identify preventable measures.

Method: Retrospective analysis of all paediatric trauma patients (<16 years) who fell from a window/balcony/roof >1m presenting to two Major Trauma Centres. Data are quoted as median(range). Index Multiple Deprivation (MDI) deciles were used to reflect area status. Non-parametric statistical comparison, with a P value of <0.05 is significant.

Results: There were 125 falls over a 5 year period (2010-2015), 81 of which were male (65%). The median age was 3(0.3-15.8) years with a median height of 6(1-14) metres. The majority of falls were from windows n=97(78%); balconies n=15(12%); roofs n=6(5%) and others n=7(5%). Most were accidental n=117(94%), 8(6%) were suicides with a median age of 14(12.8-15.6) years (75% female, n=6) and 2 children <2 years were casualties of maternal suicide. In total, 130 injuries were sustained, predominantly neurological (head/spinal) n=51(39%) with 5(10%) requiring surgery, and orthopaedic n=27(21%) with surgery in n=16(60%). The remaining injuries were treated conservatively; minor n=38(29%), abdominal n=6(4%) and thoracic n=1. 7 patients (6%) were unharmed. The median length of stay was 3(0-159) days with a median of 3(0-45) days on intensive care. 19(15%) required neurological rehabilitation. There were 2 deaths (head injuries) and 1 severely neurologically disabled child.

There was a difference in seasonality with n=96(77%) occurring in the spring/summer. Of the windows with known locks (n=50, 40%), 30(60%) were not in use or broken. 111(89%) of falls occurred in 50% of the most deprived areas (P= 0.01) (Figure).

Conclusion:

- Falls from a height occur predominantly in deprived areas once spring arrives.
- The majority are preventable if parents/local councils/landlords are appraised of the risks and advised to install and use window locks/window opening restraints.

