

Falls from height: incidence, injury, influencing factors and preventative measures

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Objectives

To identify trends around those who fall from height, severity of injury and identify modifiable risk factors.

Methods

Patients presented to NHS Highland following a fall from height as defined "person falls and lands on lower height than they were standing e.g., fall downstairs"(1) between Dec 2022 and Dec 2023, as identified from the STAG (Scottish Trauma Audit Group).

Data included are sex, age, Injury Severity Score (ISS), mechanism of injury, incidence location and involvement of alcohol.

The ISS is used to code and score individual injuries and score overall severity of injuries. Categories include Minor (ISS <9), Moderate (ISS 9-15) and Major (ISS>15).

A small sample of patients were contacted via telephone 4months post fall and were asked if there was anything they think may have prevented their fall.

Conclusion

There was a higher incidence of female to males, with females sustaining increased mild/moderate trauma vs males with a higher incidence of major trauma. Those who died, both males, sustained the most severe injuries.

Highest incidence involved stairs and falling from a hill/embankment resulted with the highest severity. Involvement of alcohol led to injury of a greater severity than the overall mean. Several modifiable risk factors were identified which may have helped to minimize the risk for these falls.

This information may contribute towards preventative education in order to minimizing the risk of falls from a height, and may help to identify incidences which may lead to a higher severity of injury.

Results

42 patients (19males & 23females) over the age of 65yo were identified; mean age 78 years (range 66-94). 5% of patients died, whose ISS were the highest in this sample (26 and 43). Mean ISS was 10.5 (range 4-43, median 9), 6 were major trauma - ISS range of 19-43 (mean 25) **Figure 1**.

Height fallen was not recorded however mechanism of injury, number of patients and mean ISS are demonstrated in **Figure 2**. Alcohol was involved in 12% of cases (5/42), mean ISS 13.6. The follow up phone calls revealed self-reported preventative measures (**table 1**).

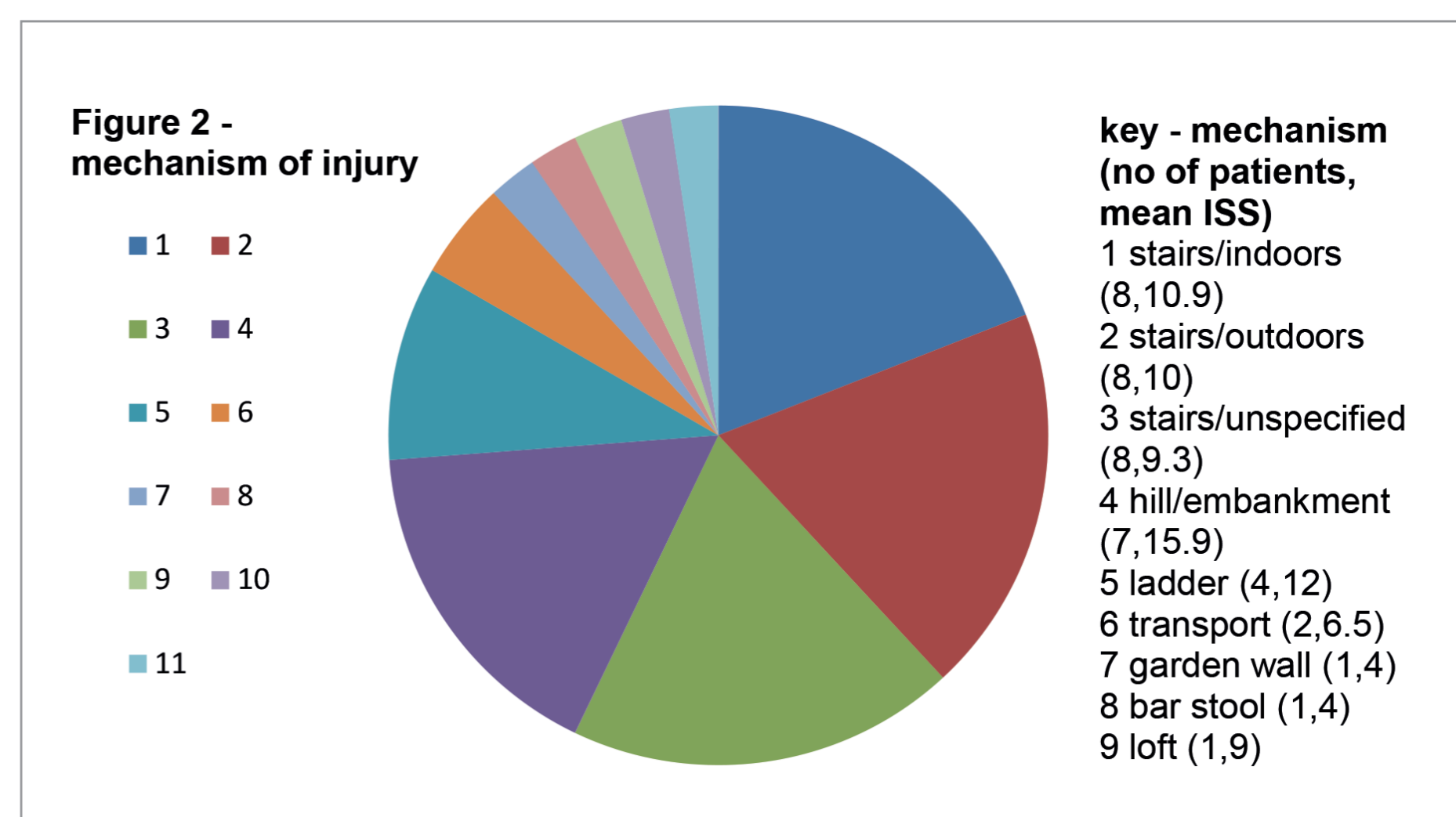
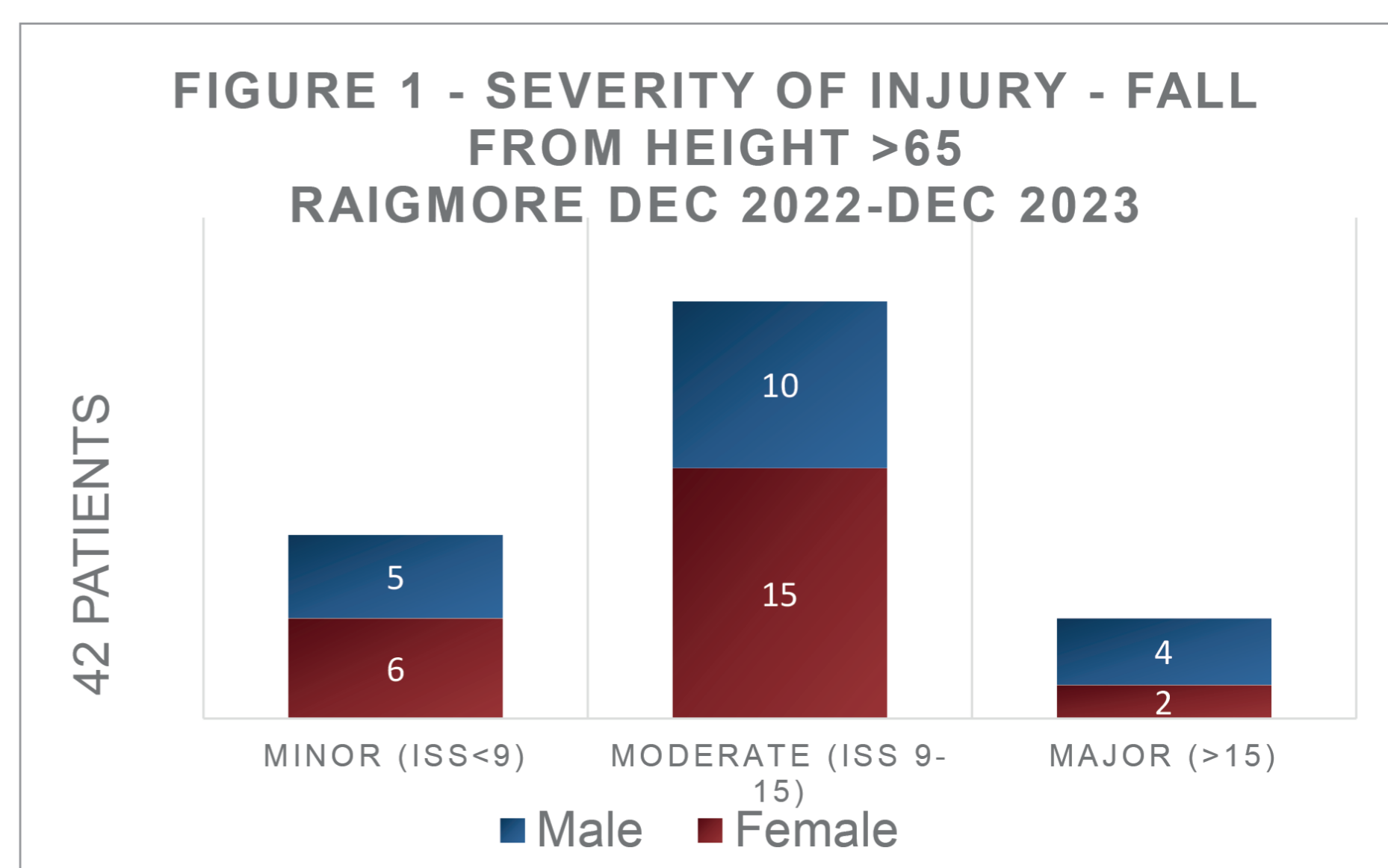


Table 1

Mechanism of fall	Patient reported self-preventative measures
Ladder	Take mobile phone to call for help Use of tool-belt Avoid cobbled surface
Stairs	Avoid alcohol second banister Avoid turning on stairs Switch on the light Not to have clothes draped over the banister

References

(1) STAG definitions document
Acknowledgements

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