

## Introduction

Silver trauma was conceptualised to highlight that with increasing age both the mechanism for serious traumatic injury and patient outcomes differ significantly<sup>(1)</sup>. Older patients with less physiological reserve are more likely to suffer harm from unjustifiable delays to diagnosis or in delays in accessing treatment<sup>(1,2)</sup>. The health and care system must be fit for older patients with equal right to care being a core principle<sup>(3)</sup>. This project builds on the extensive work undertaken by the Trauma Audit and Research Network (TARN<sup>(1,4,5)</sup>) and the HECTOR course.

## Methodology

Retrospective patient data was collected for patients presenting over a 12-month period to Aberdeen Royal Infirmary (ARI) Emergency Department aged  $\geq 65$  and with an injury severity score (ISS)  $>15$ . Therefore categorised as Major Trauma. Data collected included: use of the Silver trauma activation criteria (STAC) tool, pre-alert, trauma call inclusion, grade of clinician assessing, Tranexamic acid (TXA) use and time to definitive radiology. An anonymous survey was sent to multidisciplinary members of the team around the current STAC tool using survey monkey. We have since updated the STAC tool to include a clinical frailty score of  $\geq 4$ , recognising that frailty is not always dependent on chronological age<sup>(6)</sup>. A program of medical education has been commenced targeting nursing and medical staff at all levels and acute medicine colleagues.

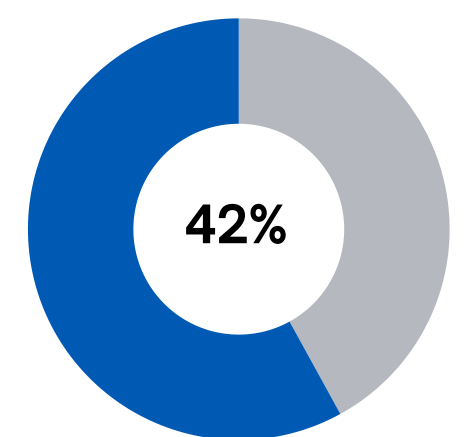
## Objective

To improve early recognition of Silver Trauma in Aberdeen Royal Infirmary (ARI) Emergency Department through application of the STAC tool and medical education.

## Analysis

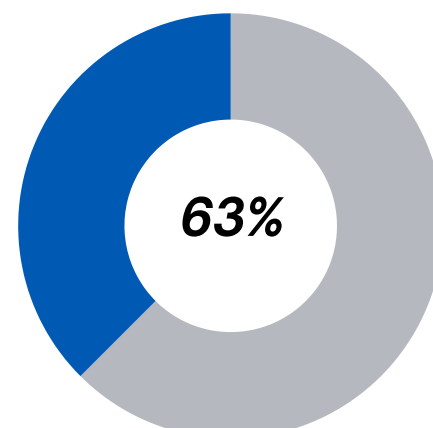
Our initial retrospective analysis has shown we are not recognising 58% of patients aged 65 or older with major Trauma (ISS $>15$ ) at triage if they do not meet initial criteria for an adult trauma call. 20% of patients with ISS $>15$  resulting from a fall from standing will get a trauma call compared to 50% with a fall from  $>2m$  and 100% if involved in a RTC. Major trauma patients are 2.7 x more likely to get TXA if in RTC then from a fall from height ( $>2m$ ) or a fall from standing. 46% of multidisciplinary staff surveyed reported no training in using the current STAC (Silver Trauma Assessment Criteria) tool.

## Percentage of patients identified by the STAC tool\* (aged $\geq 65$ , ISS $>15$ )



\*Excluding patients identified by existing 'Adult' and 'Code Red' trauma calls.

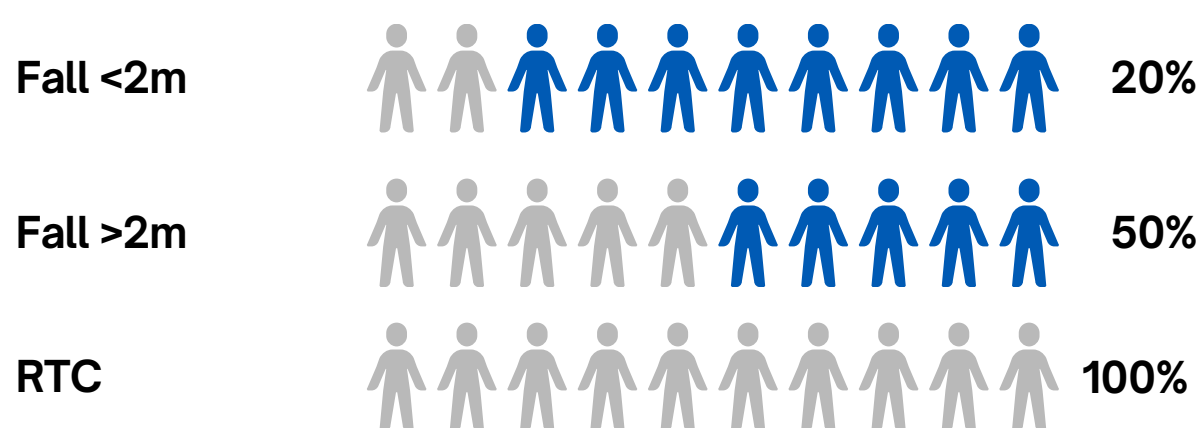
## Percentage of patients pre-alerted to the Emergency Department (aged $\geq 65$ , ISS $>15$ )



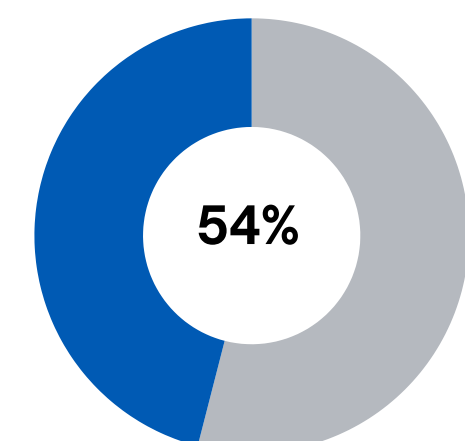
## TXA administration by mechanism (aged $\geq 65$ , ISS $>15$ )



## ED trauma call by mechanism (aged $\geq 65$ , ISS $>15$ )



## Percentage of staff surveyed with STAC tool training\*



\*Survey Monkey Responses from 24 members of staff including Consultants, Registrars, PAs and Band 3 to 7 Nursing Staff

## Interventions

- Updated STAC Tool to include inclusion criteria of clinical frailty score and age  $> 65$ . Triggering senior clinician performing primary survey
- Medical education sessions do date delivered to minor injury nurses, junior doctors and acute medical doctors with plans to expand to all grades of staff, so anyone feels empowered to highlight patient concerns.

## Future

STAC tool use will be re-audited at the next PDSA cycle, following completion of education to all members of the multidisciplinary team. Education on STAC has been delivered to junior doctors, minor injury nurses and acute medical physicians. A further intervention will be to incorporate a three-tier trauma response in ED, with 'Code Red', 'Adult Trauma Call' and a new 'ED Trauma Call', where patients identified by the STAC tool may trigger a trauma response expediting imaging and treatment.

## References

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