

clinical predictors were age >40 (LR+ 1.8 [95% CI 1.5–2.1]; LR- 0.4 [0.2–0.6]), female sex (LR+ 2.0 [1.6–2.4], LR- 0.7 [0.6–0.8]), first time dislocation (LR+ 1.7 [1.4–2.0]; LR-0.2 [0.1–0.5]), and presence of humeral ecchymosis (LR+ 3.0–5.7; LR- 0.8–1.1). The most important mechanisms of injury were: high-energy mechanism fall (LR+ 2.0–9.8), fall >1 flight of stairs (LR+ 3.8 [95% CI 0.6–13.1]; LR- 1.0 [95% CI 0.9–1.0]), and motor vehicle collision (LR+ 2.3 [0.5–4.0]; LR- 0.9 [0.9–1.0]). The Quebec Rule had a sensitivity of 92.2% (95% CI 54.6–99.2%) and specificity (33.3%, 23.1–45.3%) but the Fresno-Quebec rule maintained 100% sensitivity across three studies that included 564 shoulder dislocations and 98 fractures.

In conclusion, the Fresno-Quebec Rule has undergone both internal and external validation and may now have a role in clinical practice.

1412 CERVICAL SPINE IMMOBILISATION IN AMBULATORY PATIENTS

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Aims, Objectives and Background Approximately 2500 people suffer a traumatic cervical spinal fracture per year in the UK, of which 10–14% have an associated spinal cord injury. Emergency department practice was changed after Sundstrom et al (2014) found existing evidence for cervical spine collars to be weak. From April 2015 a new guideline was implemented in the Royal Derby Hospital removing the routine use of cervical collars for certain groups. This allowed patients who self-presented to the ED who met the Canadian C-spine criteria for radiographic imaging to remain free from immobilisation devices and undergo standing plain films or self-position for CT imaging.

Method and Design A retrospective case note review was carried out from April 2009 to September 2021. Patients with a confirmed diagnosis of cervical spine fracture were identified and those who did not arrive by ambulance were selected for analysis. Their case notes were reviewed for fracture site, time since injury, neurological symptoms and clinical management.

Results and Conclusion Cervical spine fracture was diagnosed in 30 patients each year on average over the study period. Fifteen per cent were not conveyed by ambulance. Over 70% of patients presented more than 4 hours after their injury. The most common site of injury was C6/7 (50%) followed by C2 (30%). Those patients who self-presented to the emergency department and were subsequently diagnosed with a cervical spine fracture suffered no adverse outcomes. Self-presentation to the emergency

1421 THE SCOTTISH CODE RED AUDIT REPORT FOR THE PERIOD 1ST JANUARY 2018 TO 31ST DECEMBER 2019 WITH COMPARISON TO PREVIOUS AUDIT FINDINGS OF SCOTTISH CODE RED PRACTICE SINCE 1 JUNE 2013

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Aims, Objectives and Background The Scottish Transfusion and Laboratory Support in Trauma Group (TLSTG) have previously audited National Code Red activations to optimise the transfusion support given to patients following major trauma in Scotland. This report is for all patients in Scotland for whom a Code Red was activated between 1st January 2018 and 31st December 2019 and also compares findings to previous audits since 1 June 2013.

Method and Design A clinical and transfusion lead for each centre entered anonymised data onto a secure electronic database (REDCap).

Abstract 1421 Table 1 Summary data comparison to previous audits

	1 June 2013-31 Oct 2015	1 Nov 2015-31 Dec 2017	1 Jan 2018- 31 Dec 2019
Activations	56	66	96
Mean age	43	45	43
Male %	75	88	69
Mean ISS	26	28	31
Blunt %	75	75	74
Received blood products %	89	93	90
	Pre-hospital		
Pre-hospital transfusions, n	16	48	73
999 to Code Red activation, mins	70	37	80
Pre-hospital tranexamic acid, %	70	78	93
Volume of clear fluid given, mls	500	285	266
	Emergency Department		
Mean ED arrival SBP, mmHg	90	104	102
ED arrival to CRC transfusion, mins	9	16	4
ED arrival to FFP transfusion, mins	50	56	16
FBC order to result, mins	81	46	48
Clotting screen order to result, mins	119	53	14
Use of ROTEM / TEG in ED, %	0	12	13
Volume of clear fluid given, mls	100	0	198
Massive transfusion, n (%)	7 (13)	5 (8)	24 (25)
Survival to hospital discharge %	63	66	65
Code Red activation to ED, mins	24	33	20
CRC units/ patient in first	24 hours	4	5
FFP units/ patient in first 24 hours	4	4	4
Platelet units/ patient in first 24 hours	2	2	1
Total wasted CRC, n	16	9	37
Total wasted FFP, n	33	14	37
Total wasted platelets, n	6	6	6

Results and Conclusion There were 96 Code Red activations. Mean age was 43 (SD 18) years, and 66 (69%) were male. Median ISS was 29 (IQR 19–41, n=76, mean ISS 31, SD 17) with 71 (74%) blunt trauma. 87 (90%) received blood components with 73 (76%) receiving pre-hospital transfusion. 67 of 73 (92%) who received pre-hospital transfusion, received further hospital transfusion. Median time from 999 call to Code Red activation was 80 (IQR 56–106, n=47) minutes and 77 (93%, n=93) patients received pre-hospital TXA. Median time after ED arrival to transfusion was 4 minutes (IQR 0–17, n=50) for Concentrated Red Cells (CRC) and 16 minutes (IQR 5–28, n=49) for Fresh Frozen Plasma (FFP). Median time from ED arrival to Full Blood Count (FBC) result was 70 mins (IQR 50–109, n=61) and for clotting was 74 mins (IQR 54–100, n=83). 65 (68%) patients survived to hospital discharge. Activations have increased over the audit periods (audit 1=56, audit 2=66, audit 3=96), with an increased in female% noted this audit. Injury Severity Score (ISS) has increased (26,28,31) as has pre-hospital transfusions (16,48,73), pre-hospital tranexamic acid% (70,78,93), Rotational Thromboelastometry use (0,12,13) and massive transfusion (7,5,24). Time to CRC, FFP, FBC, and clotting results are maintained or improved. CRC (16,9,17 units) and FFP (37 vs 14 units) wastage has increased. Survival% is maintained (63,66, 65)

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THE KNIFE SAVERS BLEEDING CONTROL CAMPAIGN: AN EVALUATION OF THE PUBLIC EDUCATION PROGRAMME

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Aims, Objectives and Background Penetrating trauma remains a leading cause of mortality in the United Kingdom with major haemorrhage a potentially preventable cause of death.

KnifeSavers, a not-for-profit healthcare professional led organisation based at a regional major trauma centre, launched in 2019 to educate and empower the public how to manage a bleeding wound. There are three pillars of the campaign; an education programme, distribution of bleeding control packs and a public awareness campaign all focused on stopping major bleeding at scene.

The aim of this review is to evaluate the response to the education programme and improvement in confidence and ability of the attendees to control major bleeding.

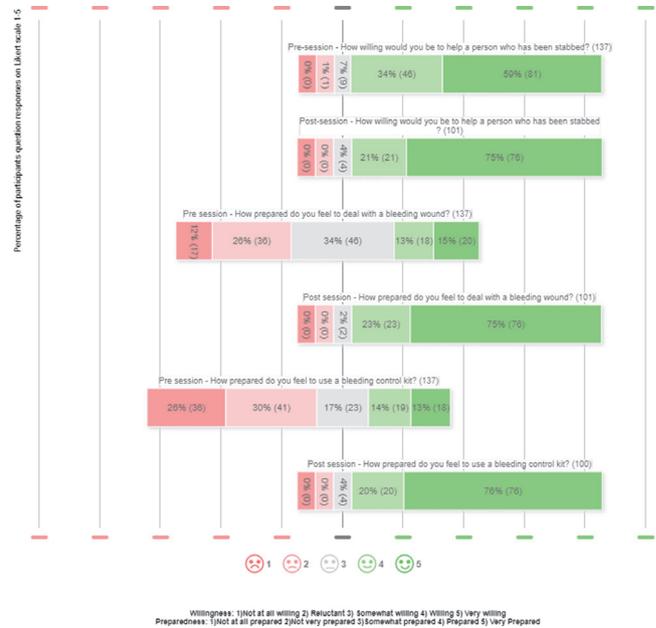
Method and Design Adult public members attending KnifeSavers education sessions between July 2021 and March 2022 were recruited to partake in pre and post event surveys.

Utilising a 5-point Likert scale participants willingness and preparedness to manage bleeding knife related wounds were assessed.

The data was comparatively measured, without accounting for attrition, to evaluate a change in response.

Results and Conclusion There were 137 responses to the pre survey and 74% retention rate for the post session survey (n=101).

Despite a consistently high willingness in participants to intervene (93% pre session and 96% post), only 28% felt prepared to manage a bleeding wound prior to the education session, and 27% felt prepared to use a bleeding control kit.



Abstract 1674 Figure 1 Comparison of pre and post survey 5-point Likert scale data

Following the session an increase to 98% of participants were prepared to deal with a bleeding wound, and 96% prepared use a bleeding control kit.

Of note 97% of attendees stated it was important that training was delivered by health care professionals.

This data suggests that the KnifeSavers education programme is an effective strategy in increasing public preparedness to manage life-threatening bleeding wounds and supports further expansion of the programme.

A further mixed methods qualitative assessment including paired t-test statistical analysis is underway.

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DERIVATION OF A TOOL TO PREDICT MORTALITY IN A POPULATION OF FREQUENT ATTENDERS TO AN INNER CITY EMERGENCY DEPARTMENT

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Aims, Objectives and Background The Royal College of Emergency Medicine defines Frequent Attenders (FA) as anyone who attends the Emergency Department(ED) five or more times per year. This group has a high mortality and is a significant burden on services. The Bristol Royal infirmary (BRI) is a city-centre adult-only ED, where 1.8% of our patients are FAs, with a 5 year mortality rate of 20% in this group. Our aim was to further develop a triage tool used by the BRI High Impact User team, by determining which factors increase mortality in our population.

Method and Design Data was collected retrospectively from 250 electronic patient records, randomly selected from 1780 FAs attending in 2016. Six variables were chosen for analysis: current mental health problems(MHP), homelessness, injecting drug use, alcohol misuse, chronic medical problems(CMP) and number of attendances that year. Data on age, gender and 5-