Abstracts

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 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)

1674 THE KNIFESAVERS 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.

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.

1475 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-
year mortality were also recorded. Logistic regression modelling was performed to determine which factors best predicted 5-year mortality.

Results and Conclusion Univariate analysis, found that age and BMI were the only two variables independently associated with 5-year mortality.

FA cases attending 10–20 times per year with MHP(n=22) had a higher mortality (31.3%) than those in the >20 attendances group (n=6) where 5-year mortality was 0%. Multivariate analysis suggested different predictors of mortality depending on the presence or absence of MHP. Therefore two different algorithms were derived; both of which had AUROC of over 0.7.

This was a small-scale service development using a specific cohort of FAs. Our findings are not generalisable. However they highlight a complex relationship between risk factors, attendance frequency and mortality. We must question whether efforts to reduce ED attendances for FAs risks inadvertently discouraging high risk patients from accessing potentially protective treatments. We hope to encourage other EDs to develop similar tools for their FA populations.

Aims, Objectives and Background The climate crisis is the biggest health threat facing humanity and healthcare accounts for approximately 5% of the UK’s carbon footprint. To address this, the NHS has set the ambitious target of achieving net-zero emissions by 2040. This raises the question as to how emergency departments – sites of resource-intensive clinical activity – can be engaged appropriately on environmental sustainability. Can a standardised approach be developed to hasten and consolidate efforts? To test this, we developed the GreenED framework. The aim was to trial a set of actionable criteria that could be implemented by any ED seeking to improve their carbon footprint. It is designed to be easy to implement in the context of the emergency care crisis, and administered by RCEM. To our knowledge, this is the first framework in the world specifically designed for use in EDs.

Method and Design The framework is modelled on UCL’s successful LEAF programme for sustainable laboratories. Criteria were drafted based on a review of literature in healthcare sustainability relevant to emergency care, and structured into bronze, silver and gold levels based on anticipated feasibility. ED staff in 8 departments across England were then recruited to pilot bronze level. Following an induction session, participants were engaged via monthly meetings, providing updates on progress and sharing approaches and challenges. Verbal feedback and written submissions were collected.

Results and Conclusion Sites attempted as many actions as possible; most achieved at least 3 criteria. Identified obstacles were lack of senior support, guidance on how to implement changes, and time for sustainability work. Through both measurable impacts and qualitative feedback, this pilot has shown a clear demand for reducing environmental impacts, but significant challenges impeding progress. To continue leading in this we need to ensure senior buy-in and dedicate resources towards improving the sustainability of everyday departmental practices.

Aims, Objectives and Background Anaphylaxis is seen relatively frequently in the emergency department, and if not managed promptly and appropriately, is associated with significant morbidity and mortality. Often patients are admitted for extended periods of observation due to fears that they may develop a biphasic reaction. NICE has recently updated its guidelines on this but acknowledges the sparsity of research investigating the appropriate length of the observation period. The purpose of this study was to identify the frequency of biphasic reactions and what period of observation would be sufficient for patients following attendance with anaphylaxis.

Method and Design This was a retrospective observational study which looked at the presentation, treatment and outcomes of patients presenting to Royal Derby Hospital Emergency Department with anaphylaxis over the last 10 years. The patients were identified from clinical coding completed at the time of discharge and the information was attained from a combination of electronic and paper notes. We defined a biphasic reaction as a recurrence of anaphylaxis without re-exposure to an allergen following a complete resolution of symptoms and normalisation of observations.

Results and Conclusion A total of 377 patients were identified as presenting with anaphylaxis from the discharge coding. After case note review, 346 of these were concluded to have been true anaphylaxis (examples of those excluded were hereditary angioedema and ACE-inhibitor related angioedema). 321 (93%) were given intra-muscular adrenaline at some point and 244 (70%) were admitted to hospital for further treatment or observation. Of the 346 cases included in the study only 5 (1.4%) met the criteria for a biphasic reaction. Interestingly, 1 patient was responsible for 3 of those 5 attendances. The results of our study strongly suggest that the risk of a biphasic reaction is significantly less than previously thought and that admission for prolonged observation may be unnecessary in the majority of cases.