

as having the most impact with the least additional cost. There were no adverse incidents.

Triage based interventions are an important strategy in reducing the length of stay for children attending an emergency department. Doing so represents a proactive step in tackling the growing problem of overcrowding in the paediatric emergency department.

## REFERENCES

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## RCEM Moderated Papers

1767

### A SURVEY TO DEFINE THE PRE-HOSPITAL BLOOD RESUSCITATION PRACTICES OF UK AIR AMBULANCES

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**Aims, Objectives and Background** The use of pre-hospital blood components in the early resuscitation of patients with life-threatening bleeding is becoming more common. Understanding the national utilisation of pre-hospital blood is key to developing research strategies in these systems. The aim of this study was to report the blood resuscitation practices of UK Air Ambulances (AAs).

**Method and Design** Two sequential surveys were emailed to all UK AAs using the REDCap (research electronic data capture) system. Data were collected for 12 months during 2019 including: number of patients transported, timings, products carried, and number of patients transfused by aetiology. Data are reported as number (percentage), and mean ( $\pm$  standard deviation).

**Results and Conclusion** Nineteen (95.0%) AAs responded, and transported a total of 12,170 patients to hospital during 2019. The mean pre-hospital time (999-call to hospital arrival) was 92.2 ( $\pm$ 18.6) minutes. 18 (94.7%) AAs routinely carried blood products, including combinations of red cells, thawed plasma, freeze-dried plasma, and fibrinogen concentrate, table 1. The mean units of red cells and plasma carried were 2.6 ( $\pm$ 0.9) and 3.0 ( $\pm$ 1.1) respectively.

**Abstract 1767 Table 1** Blood component combinations carried by UK Air Ambulances in 2019,  $n=19$

Blood component combinations	Number of Air Ambulances (% of total)
Red cells and freeze-dried plasma	7 (36.8%)
Red cells and thawed plasma*	6 (31.6%)
Red cells only	3 (15.8%)
Freeze-dried plasma only	1 (5.3%)
Red cells in thawed plasma (RCP)**	1 (5.3%)
No products	1 (5.3%)

\* One air ambulance carried fibrinogen concentrate in addition to a combination of red cells and thawed plasma. \*\* RCP was being carried as part of a feasibility trial during 2019.

709 (5.8%) adult patients received a prehospital transfusion, of which  $n=669$  (94.4%) had a traumatic aetiology;  $n=384$  (57.4%) and  $n=183$  (27.4%) were transfused  $\geq 2$  and  $\geq 4$  units respectively. Forty adults received prehospital blood for non-traumatic aetiologies, including:  $n=18$  vascular,  $n=10$  gastrointestinal,  $n=6$  obstetric,  $n=6$  other. In addition,  $n=24$  paediatric patients received a prehospital transfusion;  $n=23$  (95.8%) following trauma.

Fifteen (79.0%) UK AAs surveyed wanted to take part in future research investigating the effectiveness of whole blood transfusion.

This survey defines current pre-hospital blood transfusion practice in the UK. The majority of AAs carry a combination of red cells and plasma, which are predominantly utilised following traumatic injury. Over three-quarters of UK AAs showed interest in participating in future whole blood research.

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### LONGITUDINAL COAGULATION PROFILES IN PATIENTS PRESENTING WITH ACUTE SEVERE TRAUMATIC BRAIN INJURY (TBI): A PROSPECTIVE OBSERVATIONAL STUDY

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**Aims, Objectives and Background** Patients who have sustained a traumatic brain injury (TBI) can have disturbances in coagulation that are distinct from other traumatic bleeding states. Coagulopathy is a risk factor for exacerbation of the primary injury, and these patients have less favourable outcomes and increased mortality compared to non-coagulopathic patients. Little is known about the longitudinal coagulation changes following TBI.

The aim of this pilot study was to investigate the coagulation profiles of patients presenting with severe TBI over the first 7 days following injury.

**Method and Design** Design: Prospective observational study

25 patients presenting to an UK major trauma centre with TBI between August 2021-March 2022 were recruited <24 hours following injury. Professional and family consultee consent was gained and serial blood samples were collected up to three times per day up to day seven.

Coagulation was assessed using thromboelastographs (TEGs) and conventional coagulation tests including Hb, Plt, PT, aPPT and fibrinogen. Pre-hospital, clinical, laboratory and imaging data were collected during the patient admission.

Coagulopathy was defined as having an INR  $>1.2$ . The longitudinal changes in the coagulation parameters were plotted for the first seven 7 days and graphically represented. This is a pre-liminary analysis.

**Results and Conclusion** 25 patients with severe TBI (GCS  $<12$ ) were recruited. Patients were stratified by their admission INR. 18 patients had an admission INR  $<1.2$  (62%  $n=18$ ), and 7 had INR  $>1.2$  (38%  $n=7$ ). 7 patients who did not have INR  $>1.2$  on their first admission blood test later developed coagulopathy (with an INR  $>1.2$ ).

Further exploration of the trends seen in conventional coagulation tests and TEG's over time is required and to understand how these changes correlate to the clinical and imaging findings. The utility of viscoelastic studies such as

TEG's in the assessment of TBI associated coagulopathy remains unclear.

**1754** A THEMATIC ANALYSIS OF TWITTER POSTS PRE AND POST-PUBLICATION OF CRASH-3 TRIAL RESULTS USING BLOOM'S DIGITAL TAXONOMY. EXAMINING HOW SOCIAL MEDIA THEORIES IMPACT KNOWLEDGE TRANSLATION

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**Aims, Objectives and Background** The purpose of this study is to unpack the cognitive dimensions of learning and the subjective internalisation that resulted from Twitter activity by investigating the following research questions: 1) What types of information were shared on Twitter pre and post-publication of the CRASH-3 trial? and 2) Did this information signify knowledge translation? This topic is important because translation of medical research into medical practice can take up to 20 years and Twitter-aided knowledge translation has the potential to shorten this. This study is the first to analyse tweets thematically through two methods, including Bloom's Digital Taxonomy (BDT), bringing the realities of Twitter users to the foreground.

**Method and Design** Pre-publication tweets (n=92) and post-publication tweets (n=742) were analysed using 1) Braun & Clarke's six-step thematic analysis framework and 2) BDT. The highest-order thinking skill (HOTS), during BDT analysis, was assigned following a consensus meeting between two independent coders.

**Results and Conclusion** Eight overarching themes emerging from the pre-publication phase: emotion and feeling (90.21%), hashtagging (40.21%), tagging (26.09%), education-related information (10.87%), research-related information (9.78%), conference (7.61%), statement (3.26%) and poll (2.17%). 16 overarching themes emerged from the post-publication phase: hashtagging (56.06%), tagging (36.79%), article posting (23.05%), emotion and feeling (21.83%), education-related information (19.54%), summarising (14.42%), notification of results (9.57%), media outlook (7.01%), conference (6.74%), commenting (6.06%), open questions (5.26%), judging (4.99%), research-related information (4.04%), recommending (1.75%), quoting (1.48%) and comparing trials (0.40%). Some tweets applied to more than one category of themes.

There was an increase in HOTS during the post-publication phase, signifying an increase in the cognitive dimensions of learning and the subjective internalisation of information. This was likely due to the increase in social

Abstract 1754 Table 1

BDT HOTS	Pre-Publication n (%)	Post-Publication n (%)
Remembering	80 (86.96%)	388 (52.29%)
Understanding	7 (7.61%)	185 (24.93%)
Applying	1 (1.09%)	30 (4.04%)
Analysing	0 (0%)	9 (1.21%)
Evaluating	3 (3.26%)	62 (8.36%)
Creating	1 (1.09%)	68 (9.16%)

media activity and information sharing following the release of trial outcomes. These findings support the role of Twitter, through the social capital model, in facilitating higher-order learning.

**1683** CLINICAL IMPACT OF A NOVEL AMBULATORY COMPUTED TOMOGRAPHY CORONARY ANGIOGRAPHY PATHWAY FOR PATIENTS AT A MODERATE RISK OF SUSPECTED ACUTE CORONARY SYNDROMES

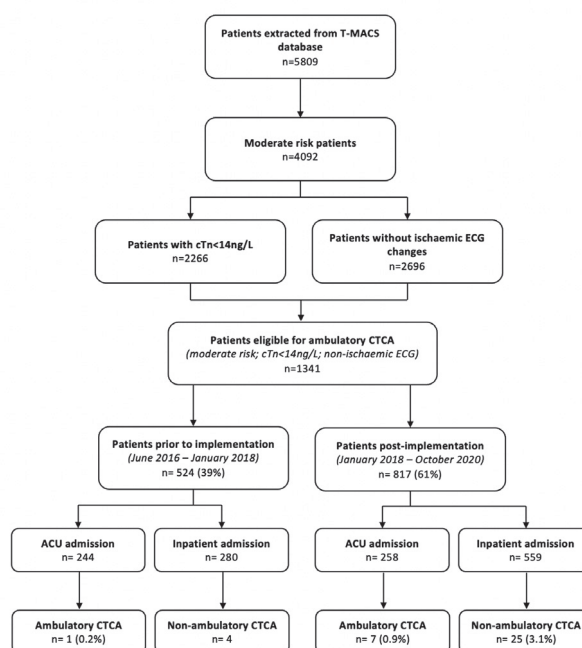
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**Aims, Objectives and Background** We implemented a novel ambulatory computed tomography coronary angiography (CTCA) pathway as an alternative to inpatient stay when resolving uncertainty surrounding acute coronary syndrome diagnosis in 'moderate risk' patients. Eligible patients were identified automatically, and recommendations 'pushed' to the clinician. This novel pathway aimed to reduce the length of stay and pressure on hospital resources. We investigated the uptake of this service and its effects on patient outcomes including length of stay and the use of percutaneous coronary intervention (PCI).

**Method and Design** We conducted a retrospective, single-centre service evaluation. Patients were eligible for CTCA if they were moderate risk with T-MACS; troponin <99th percentile; no acute electrocardiogram ischaemia.

Data were collected contemporaneously using the T-MACS app as part of routine clinical care for consecutive moderate-risk patients pre- (June 2016 – December 2018) and post-implementation (January 2018 – October 2020) of ambulatory CTCA. The primary outcome was adherence



Abstract 1683 Figure 1