

and November 2020 were identified retrospectively through a clinical-coding search. Patient records were used to confirm the number of days between injury and presentation; those who presented ≥ 10 days post-injury were included for further analysis. Data was collected from ED documentation including region of pain, bony tenderness and weight-bearing status. OAR were used to categorise patients as 'Ottawa-positive', 'Ottawa-negative' or insufficient documentation. It was recorded whether the patient underwent radiography and whether the formal radiograph report confirmed a clinically-significant fracture. Patients who didn't undergo radiography and didn't subsequently re-present were deemed not to have a fracture. Data collected for each patient was checked and agreed by two authors.

Results/Conclusions 6782 patients presented with ankle injuries, of which 126 patients presented ≥ 10 days post-injury. Of these 126 patients, 9 were Ottawa-positive, 90 were Ottawa-negative and 27 patients had insufficient documentation. 85 patients underwent radiography and 19 were found to have clinically-significant fractures. Of these fracture patients, 4 were Ottawa-positive and 15 were Ottawa-negative.

Within our dataset, OAR demonstrated a sensitivity of 21.05%, specificity 93.75%, PPV 44.40% and NPV 83.30%. Using Fishers exact test, $p=0.0658$. OAR demonstrate poor sensitivity and cannot be safely used to rule out ankle fractures in patients who present ≥ 10 days post-injury. However, due to the p-value and low power there may be a risk of type 2 error and a larger study may prove otherwise.

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CREATING AND EMPLOYING AN ADMISSION BLOODS BASED DIAGNOSTIC AIDE FOR COVID-19 TO ASSIST COHORT-BASED ISOLATION STRATEGIES

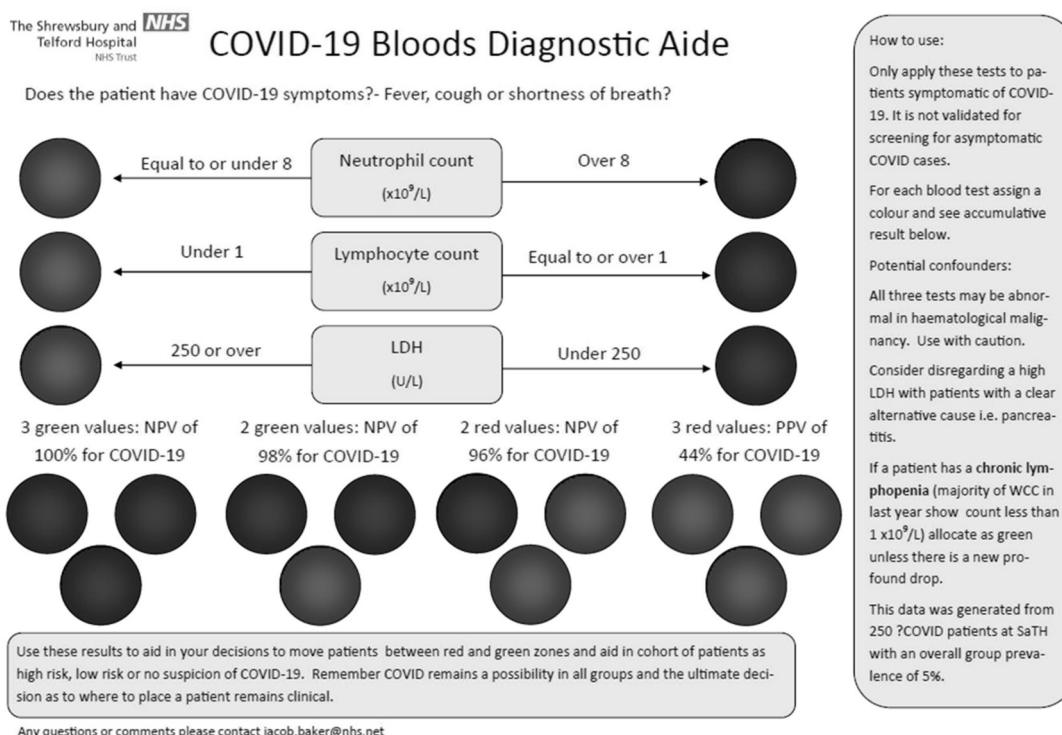
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Aims/Objectives/Background In the COVID-19 pandemic the Shrewsbury and Telford Hospital NHS Trust has isolated suspected cases in high and low suspicion cohort bays to reduce nosocomial infection. Before rapid PCR swabs were in routine use, we sought tools to aide identifying COVID-19 positive patients.

Methods/Design We collected data from two cohorts in April and June 2020 totalling 317 patients, with positivity rates of 33% and 5% respectively. We retrospectively correlated neutrophil count, lymphocyte count, LDH and AST to positive and negative swab results. Predictive value of COVID-19 positivity was assessed via their receiver operator characteristic. Areas under the curve were as follows: Neutrophils 0.75, lymphocytes 0.64, combined neutrophil and lymphocyte count 0.82, AST 0.65 and LDH 0.7.

We developed a diagnostic aide to assist in allocation of high and low suspicion based on parameters for neutrophil count, lymphocyte count and LDH, each of which was assigned red (higher probability) or green (lower probability) in a 'traffic light' system. Combined and applied retrospectively to 252 patients with suspected COVID-19, with a positivity prevalence of 5%, three green values generated a



Abstract 943 Figure 1

negative predictive value for COVID-19 of 100%, two greens 98% and three reds a positive predictive value for COVID-19 of 44%.

Results/Conclusions This diagnostic aide was applied from August 2020 within the Trust Emergency Departments and Acute Medical Units to aide cohort decisions. A retrospective application to all 213 patients with positive swabs admitted from August to November 2020 demonstrated that 69% were highlighted as at least two 'red lights' and only 1.4% were erroneously highlighted as three 'green lights'. The aide is an example of a rapidly developed evidence based tool and, particularly if updated with data from other centres, could be widely employed in low-resource healthcare settings.

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DOES FIBRINOGEN CONCENTRATE IMPROVE OUTCOMES IN MAJOR TRAUMATIC HAEMORRHAGE? A SYSTEMATIC REVIEW

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Background Acute traumatic coagulopathy (ATC) is present in a quarter of severely injured patients and is associated with worse outcomes.(1–3) Fibrinogen is the first clotting protein to become deficient in ATC and there is a suggestion that supplementary fibrinogen may improve outcomes in these patients.(1, 4, 5) This review aimed to explore the efficacy and safety profile of fibrinogen concentrate (FC) administration to patients suffering from traumatic haemorrhage.

Methods A comprehensive search of Medline, Embase and the Cochrane Library databases was performed. Studies were included if they compared FC administration with a suitable comparator group in adults suffering from traumatic haemorrhage. Only randomised controlled trials, quasi-experimental or cohort studies were included at the screening stage. Included papers were analysed by narrative review.

Results 271 studies were identified and screened of which 8 were included. Mortality data was conflicting and of poor overall quality. Four of the studies reported a survival benefit with FC administration,(6–9) one reported a higher ICU mortality,(10) and the remaining studies found no significant difference relative to the comparators.(11, 12) All studies exploring the effect of FC on plasma fibrinogen levels found a significant increase to normal levels in the FC group at 2 hours post intervention.(11–13) One study demonstrated that this effect lasted for twelve hours after receiving FC.(11) There was no increase in the incidence of thromboembolic events in patients treated with FC compared to standard care.

Conclusion FC is effective at reversing hypofibrinogenaemia in the setting of ATC and does not appear to increase the risk of thromboembolic events. Mortality data remains conflicted and of poor overall quality, therefore it is unclear if these affects correspond to improved clinical outcomes. Randomised controlled trials adequately powered to detect a mortality difference are recommended before the clinical efficacy of FC in traumatic haemorrhage can be established.

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IMPROVING DIAGNOSIS AND APPROPRIATE SPECIALTY REFERRAL WITH A SYNCOPE PATHWAY

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Aims/Objectives/Background Syncope is a common presentation to ED. Patients with an underlying cardiac cause have increased risk of adverse outcome. Initially, aetiology can be unclear leading to high admission rates and associated costs. In August 2018, a syncope pathway was introduced at the Royal Infirmary of Edinburgh (RIE) ED to aid diagnosis and direct patients to appropriate services. Our aim was to assess the impact of this pathway on syncope diagnosis, admission rates, patient outcomes and specialty input.

Methods/Design A search of electronic patient records (EPR) eight months before and after the pathway's introduction was conducted to identify patients presenting with 'fainting episode +/- loss of consciousness'. EPR's were reviewed and non-syncope presentations excluded. Two reviewers consecutively sampled from both groups. Remaining patients had their EPR's scrutinised to determine history, examination findings, immediate and 1-year outcomes and referrals to specialities.

Results/Conclusions Our search identified 1055 pre-pathway and 1073 post-pathway patients. Following exclusion of non-syncope diagnoses, 673 patients remained in the pre-pathway group and 480 in the post-pathway group. Consecutive sampling from these groups generated 199 patients pre-pathway and 102 patients post-pathway with a median age of 65 (range 13–100).

A greater proportion of patients were admitted or referred to outpatient services following the pathway's introduction (46.1% versus 30.2%). Of these, 25.5% were referred to outpatient clinics compared to 20% pre-pathway. Of those admitted, 77.1% received specialty input related to their syncope compared to 25% in the pre-pathway group. After 1-year follow-up, 8.8% of patients had alternative diagnoses for their syncope compared to 2.5% pre-pathway. Post pathway, there were two syncope related deaths – both situational syncope causing falls.

Following the introduction of our syncope pathway there was no significant reduction in unscheduled care admissions. However, we have seen more specialty input and improved diagnosis with importantly, no significant increase in syncope related deaths.

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HOW EMERGENCY PHYSICIANS MAKE THEIR CAREERS SUSTAINABLE ON THE SHOP-FLOOR AND AWAY FROM IT: RESULTS FROM AN ETHNOGRAPHIC AND INTERVIEW-BASED STUDY

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Aims/Objectives/Background This study aims to understand how emergency physicians work sustainably in an increasingly challenging environment in the context of a retention crisis across all grades of emergency physician.