Abstract 100 Figure 3 The baseline B-line score predicts the development of hypoxemia during the first 72 hours of hospitalization. A receiver operator characteristic curve illustrating how the sonographic B-line score predicts future hypoxemia

during the first 72 hours of admission. Analysis of mortality did not reach statistical significance ($p = 0.11$), but suggested a higher B-line score may be associated with increased risk of death.

In summary, this study establishes important relationships between intravenous fluid treatment and extravascular lung water as assessed by a novel use of lung ultrasonography in a resource-limited setting.

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REFERENCE

1. Wang RJ, Katha G, Phiri M, Delbridge P, Gordon SB, Calfee CS, Huang L, Rylance J. Sonographic B-lines, fluid resuscitation, and hypoxemia in malawian patients with suspected sepsis. *Am J Respir Crit Care Med* 2020 Apr. doi: 10.1164/rccm.202003-0640LE.

Abstract 100 Figure 4 A higher B-line score may be associated with decreased survival. Kaplan-Meier survival estimates for participants with a baseline sonographic B-line score from 0–5 compared to participants with scores > 5 (estimated hazard ratio 2.1, 95% CI 0.86 to 5.1, $p = 0.11$)

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RAPID AND SUSTAINED INCREASE IN #FOAMED BASED EDUCATION DURING COVID-19 ON THE ST EMLYN'S BLOG AND PODCAST

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Aims/Objectives/Background COVID 19 has resulted in a rapid and unplanned change in the way that education is delivered and consumed. The St Emlyn's team published a range of webinars, blogs, podcasts and critical appraisal articles specifically focused on COVID-19 during the pandemic. Some webinar content was published in conjunction with the Royal College of Emergency Medicine and the University of Manchester.

We reviewed how engagement with the free and open access medical education (FOAMed) St Emlyn's blog and podcast changed as a result of the pandemic

Abstract 131 Figure 1

Methods/Design We compared the number of visits for the last 12 months against the previous 12 months. We obtained data from Wordpress and Podbean platforms for the blog and podcast respectively. We did not add data from other social media platforms such as Twitter and Facebook. Differences are expressed as a ratio to indicate an increase or decrease in the number of engagements from the previous year.

Results/Conclusions The data shows similar levels of between year activity from July 2018 through to February 2019. It then shows a rapid and profound increase in activity from March 2019, coinciding with the rapid spread of the pandemic in Europe and an early blog/podcast with colleagues from Northern Italy. Since then activity has fallen but still remains roughly 1.5 times higher than in previous years. Combined visits to the blog and podcast peaked at 162,019 engagements, representing a near 6.9 fold increase in podcast engagement and a 2.7 increase in blog activity during May 2019.

The COVID-19 pandemic resulted in a rapid and sustained engagement with the St Emlyn's platform. The reasons for this are unclear from the data presented here, but we believe reflect the superior agility of modern educational tools such as blogs and podcasts to share and disseminate information as compared to traditional academic publishing methods.

171 EARLY SENIOR ASSESSMENT AND ACCESS TO CT IN AN EMERGENCY DEPARTMENT

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10.1136/emj-2020-rcemabstracts.10

Aims/Objectives/Background The Rapid Assessment and Treatment (RAT) model provides early senior assessment of undifferentiated 'majors' patients and has been proposed as a strategy for improving Emergency Department (ED) efficiency. One goal of RAT is to organise essential imaging at an earlier stage within the patient's ED journey. This study aimed to identify any potential early impact of a RAT initiative on time to imaging for patients requiring CT head.

Methods/Design Electronic health record data were extracted for all patients that underwent head CT while in the ED over a 54-month period (48 months pre-intervention and 6 post-intervention) at a single Major Trauma Centre in England. Interrupted time series analysis was used to estimate any effect of RAT on time from ED arrival to imaging.

Results/Conclusions There was a pre-existing gradual trend over the entire time series towards patients waiting less time for CT. Although time to CT appeared to increase when the RAT model was implemented, this change was small and not statistically significant (9.8 [95% CI -1.6 to 21.3] minutes). Following RAT implementation, the pre-existing trend towards quicker access to CT resumed but without any change in the slope of the line.

This early evaluation did not identify an association between RAT implementation and speed of access to CT head. The system may mature over time and further evaluations will be necessary to identify delayed effects on access to imaging as well as other process measures intended to improve ED safety and efficiency.

122 PENTHROX: A SERVICE EVALUATION FOR METHOXYFLURANE USE IN AN EMERGENCY DEPARTMENT SETTING

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10.1136/emj-2020-rcemabstracts.11

Aims/Objectives/Background In Manchester Royal Infirmary, a major trauma centre, there are many patient presentations which require fast acting analgesia. Often these presentations, such as shoulder dislocations, require conscious sedation in order to be safely, effectively and humanely treated.

Penthrox was introduced to the emergency department in December 2019. It was hoped that it would be used as an alternative to conscious sedation in patients requiring procedures. It was postulated that by having another analgesic method available, patients would have a greater likelihood of being discharged without the requirement for conscious sedation. This would therefore not require waiting for a Resus bed and therefore reduce length of stay in the department.

Methods/Design Data was prospectively gathered for patients who received Penthrox in the months of December 2019 to July 2020 using a questionnaire that was filled in by clinicians.

Audit forms were collated as well as attendance data (including length of stay) for shoulder dislocations Dec 19 - Feb 19.

Pain scores were subjectively scored out of 10 and, using t-tests, compared for significance.

Length of stay, checklist completion, progression to conscious sedation, further pain relief requirements and indications were also analysed.

Results/Conclusions Subjectively reported pain scores were significantly reduced when comparing before and during procedure (<0.001, 95% CI of a reduction of 1.959 to 5.113) and also before and 10 mins after procedure (p= <0.001, 95% CI 3.96 to 6.33). The distributions of pain scores are demonstrated in the violin plot below.

There was no significant association between checklist completion and progression to conscious sedation.

Difference between length of stay did not quite meet statistical significance (mean = 163.62 using penthrox, mean = 225 without penthrox. p = 0.06).

There were no significant adverse events.

In conclusion Penthrox is a safe and welcome addition to the ED formulary.

206 EMERGENCY DEPARTMENT CLINICAL LEADS' EXPERIENCES OF IMPLEMENTING PRIMARY CARE SERVICES WHERE GPs WORK IN OR ALONGSIDE EMERGENCY DEPARTMENTS IN THE UK: A QUALITATIVE STUDY

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Aims/Objectives/Background We aim to describe ED clinical leads' experiences of implementing and delivering 'primary care services' and 'emergency medicine services' where GPs were integrated into the ED team. NHS England policy has promoted services in which patients presenting to EDs with