Methods/Design We undertook a case-control study with adolescents attending for suspected fractures serving as the control group. Adolescents and their guardians were each given a questionnaire pack on arrival in ED, and again at least 2 hours later, thus capturing their expectations and pre-existing characteristics, and their experience. Trained research assistants were present in the ED seven days a week and covered 10 am till 10 pm. The study commenced in July 2019 and terminated early in March 2020 at the onset of the COVID 19 pandemic.

Results/Conclusions Young people who had self-harmed had significantly higher mean dissatisfaction scores than those with suspected fractures. They also had higher mean levels of emotional and interpersonal difficulties and these were associated with higher dissatisfaction scores. This is the first case-control study to show that dissatisfaction with the ED is at least partly a function of the particular mental health problems suffered by adolescents who self-harm. This in turn provides initial clues to the particular needs of this group of patients in whom the current management is widely reported as inadequate.

109 ACCESS TO EMERGENCY HEALTH CARE IN TIGER RESERVES IN THE CENTRAL INDIAN LANDSCAPE. LESSONS FOR GLOBAL EMERGENCY CARE

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Aims/Objectives/Background Forest staff working in remote locations are at high risk of life-threatening emergencies; including major trauma and snakebites. Timely access to appropriate emergency care is pivotal to life-saving treatment. This is the first study to systematically map public health facilities (PHFs) around tiger reserves (TRs) in central Indian state of Maharashtra.

Methods/Design Using publically available data; GPS coordinates, medical staff, and services were identified for PHFs in increasing order of specialism; including Primary Healthcare Centre (PHC), Community Health Centre (CHC), Sub-district Hospital (SDH) and District Hospital (DH). GIS Network Analysis was used to identify the nearest PHFs in relation to the access points of eight TRs; and the shortest distance by road and corresponding travel time by vehicle were calculated.

Abstract 109 Table 1 Average distance and time to access the nearest PHF

Type of Health Facility (n=96)	Average distance from a TR access point to the nearest PHF in Kilometers	Average time to reach the nearest PHF in minutes by a car
PHC (38.5%)	12.3 ± 8.6 (0.7–39.4)	24 ±17 (1–79)
CHC (26%)	24.9 ±12.4 (2.5–61.6)	47 ± 25 (5–123)
SDH (13.5%)	42 ±15.8 (4.7–80.9)	82 ± 32 (8–162)
DH (22%)	65.4 ± 28.9 (11.7–137.2)	126 ± 57 (23–235)

Results/Conclusions Of all PHFs, 87.5% offered basic emergency care, while only 54% offered radiology services. Of all trauma beds 99.9% were placed at DH level; along with 89% of all MBBS trained doctors. Only 28.6% of TR exit points had access to emergency ambulance service based within 30 minutes.

Conclusion This study highlight the challenges of providing emergency healthcare in low- and middle-income countries and the urgent need for greater resources and infrastructure to support the delivery of emergency care for frontline forest staff in rural areas. Further work in progress to look at the provision of emergency care in remote settings.

480 THE PROGNOSTIC VALUE OF D-DIMER FOR COVID-19 OUTCOMES

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Aims/Objectives/Background The diagnosis and management of COVID-19 has presented a novel challenge in the emergency department (ED). Early and sensitive predictors of outcome are needed to improve management of COVID-19 patients. Recent evidence has suggested a role for a COVID-19 associated pro-thrombotic coagulopathy as part of the underlying pathology. The aim was to evaluate the prognostic utility of D-dimer as a biomarker predictive of outcome in COVID-19 patients.

Methods/Design We retrospectively analysed data for 326 cases of confirmed COVID-19 presenting to our ED at the Royal Sussex County Hospital in Brighton between 13th March and 17th June 2020. During this period 2687 attendances were triaged to the 'red' COVID-19 zone with symptoms suspicious for COVID-19, amongst whom 326 admissions were confirmed to have COVID-19 by CT, chest x-radiograph or PCR swab. D-dimers were measured in ED for 265/326. Peak D-dimer measured during admission was collected to evaluate deteriorations subsequent to admission. Receiver-operating characteristic curves were used to determine an optimal cutoff for discrimination.

Results/Conclusions D-Dimer elevation >0.5μg/mL was seen in 93.5% of admitted patients with confirmed COVID-19. Multivariable logistic regression suggested that age >75 (OR=3.01 95% CI 1.65–5.49 p=0.0003) and D-dimer (measured in ED) >1.25μg/mL (OR=2.06 95% CI 1.08–3.93 p=0.0276) were associated with increased mortality. D-dimer measured in ED predicted mortality with sensitivity of 76.5% and specificity of 41.3%. The D-dimer rose by >1.00 for 30/265 patients subsequent to admission of whom 8/30 (26.7%) died (all mortality 16%) and 11/30 (36.7%) were escalated to intensive care. Peak D-dimer measured during admission >3.2μg/mL predicted hospital mortality with 50% sensitivity and 72.4% specificity (OR=2.16 95% CI 1.16–3.99 p=0.0145).

The results of this study support the growing argument that a raised D-dimer may play an important role as a prognostic marker in patients with COVID-19, perhaps indicative of a pro-thrombotic coagulopathy within the underlying pathology.