

low acuity issues that could potentially be avoided with counseling or supplies at the initial visit. However, higher acuity re-registrations, both within and between event years, are a higher risk for transport and could benefit from early identification. Having a plan to identify and potentially remove the sicker, higher risk patients from the event could be important for safety and liability.

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### Why Patients Refuse to Enroll in Hospital-Based Research: Perception of Patients Presenting to KATH Emergency Department

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**Introduction:** Komfo Anokye Teaching Hospital Emergency Department (KATH ED) is a tertiary referral center in Ghana. Anecdotally, patients seeking care at KATH ED do not actively participate in research initiatives.

**Aim:** To find out why patients presenting to KATH ED do not enroll in research studies that are conducted in the department.

**Methods:** The study was a cross-sectional survey of patients presenting to the ED for one month in June 2017. A semi-structured questionnaire was presented to patients presenting to KATH ED from 8:00–20:00 each day. Patients who were interviewed were all patients presenting to the ED for care, including those who had refused to enroll in the ongoing ACESO study. Patients had to be conscious, alert, and with conditions that did not require immediate management.

**Results:** 35% of the interviewees (91/260) had been approached to enroll in research studies at some point in the past. 13.5% had refused to enroll in a research study. 45.7% of those who refused to enroll admitted that they were afraid to enroll in a study; 28.6% had inadequate information and 22.9% perceived enrolling in a study would delay their treatment. The Akan language (73%) was most commonly used by research assistants then English (26%), and finally Hausa (1%) to interact with patients. There was a significant association between educational background and explaining a study to a patient before they enrolled. Males were more willing to enroll in an ongoing study compared to females. All age groups correlated significantly with being approached to enroll in a research study and similarly all age groups also correlated with refusing to enroll in a research study

**Discussion:** Patients are paramount to hospital research. Efforts must be made to ensure that patients concerns and needs are addressed to ensure increasing participation.

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### Working Together to Develop Best Practice: Rescue Operations in Confined Settings

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**Introduction:** Major injury incidents in confined settings such as tunnels and underground mineral- and metalliferous mines are rare, but when they do happen, the consequences may be severe with potential for many injured. The incident site is underground and it is difficult for the rescue and emergency medical service to get an overview and reach the injured. Therefore, it is important for the emergency medical service, rescue service, and the company responsible for the underground environment to have a good collaboration.

**Aim:** To develop best practices of conducting rescue response from a disaster medicine perspective in tunnels and underground mines through increased education.

**Method:** Within an EU-program, the university collaborates with stakeholders such as rescue service, emergency medical service, and two mining companies. Within this project, an explorative case study with participatory research is conducted. This is managed with the help of representatives of the stakeholders, workshops, and through planning for and conducting observations of table-top and full-scale exercises.

**Results:** At the first workshop the stakeholders built a timeline presenting their activities from a major incident occurring in an underground mine until the last injured was transported to the hospital. Thereafter, several workshops were conducted to find improvements that could be made regarding collaboration between the organizations. Table-top and full-scale exercises have also revealed further challenges. Within the project, prototypes are being developed and will be presented during the conference.

**Discussion:** This project involves stakeholders in the research process, and they, therefore, have a direct impact on the development of best practices of rescue in major underground incidents.

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### A Workplace-Based Observation Strategy to Assess Prehospital Care Delivery by Public Ambulances in Ukraine

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**Introduction:** Current methods to evaluate the delivery of urgent prehospital care often rely on inadequate surrogate measures or unreliable self-reported data. A workplace-based strategy may be feasible to assess the delivery of prehospital care by ambulances in selected populations.

**Aim:** To perform a nationwide assessment of the psychomotor performance of public ambulance workers in Ukraine, we created a plan of workplace-based observation. We conducted a post-hoc analysis of this strategy to assess feasibility, strengths,

and limitations for future use in assessing prehospital ambulance performance.

**Methods:** With support from the Ministry of Health, we sent teams of trained observers to 30 ambulance substations across Ukraine. Using data collection tools on mobile devices, these observers accompanied Advanced Life Support ambulances on urgent calls for periods of 72 hours. We evaluated this program for collecting patient encounter data against the investment of time, personnel, and financial resources.

**Results:** Over a two-month period, we directly observed 524 patient encounters by public ambulances responding to urgent calls at 30 ambulance substations across Ukraine. We employed 6 observers and 2 administrators over this time period. Collecting our observations required 2,160 person-hours at the ambulance substations. The total distance traveled to these sites was 11,375 kilometers. Project costs amounted to 37,000 USD, equating to 71 USD per observed patient encounter.

**Discussion:** Workplace-based assessments are a cost-effective strategy to collect data on the delivery of prehospital care in select populations. This data can be useful for identifying the current state of EMS care delivered and evaluating compliance with established treatment protocols. Successful implementation depends on effective planning and coordination with a commitment of time, personnel, and financial resources. Issues of patient privacy, legal permission, and observer training must be considered.

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### Young Doctors' Emergency Medicine Rotation Qualifications and Relation with Self-Confidence

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**Introduction:** Medicine is one of the most important areas of higher education. It is important that undergraduate students are well educated and have theoretical knowledge, but also have good clinical skills after graduating from medical training.

**Aim:** To understand whether the training objectives of the emergency medical internship was completed or not and to find the relationship between young doctors' self-confidence and what they can do via using Rosenberg self-esteem scale (RSES). In addition, an objective was to consider which learning methods are more useful based on the feedback.

**Methods:** This survey study was performed in 2018 at Bülent Ecevit University, Faculty of Medicine, Zonguldak, Turkey with the students who completed an emergency department rotation in the 2017-2018 education term. The questionnaire was composed by the researchers. It consisted of three parts which were included demographic information and education methods in emergency medicine of internships, questions about knowledge goals and learning goals for basic medicine applications, and RSES to assess young doctors' self-confidence.

**Results:** 96 young doctors with the mean age of  $25.22 \pm 1.216$  years (minimum 23 and maximum 30 years) were in the study. 53 (55.2%) of which were female. All young doctors were evaluated with RSES. 4 (4.2%) of which were low self-confidence and 32 (33.3%) of which were high self-confidence. The best useful learning methods were clinical application of interaction with patients (n=828. 5%) and invasive procedures performed on patients (n=727. 5%).

**Discussion:** The more you practice, the more you learn. Practice-based education is an important factor in a young doctor's life. Besides, the higher self-confidence you have, the more you can. Young doctors with high self-esteem see themselves as qualified to perform applications even in complicated situations. However, more studies are needed to find out whether they could really perform or not.

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