country's primary care centers. Our aim was to determine the psychological morbidity among ED physicians, nurses, administrative and ancillary staff during the H1N1 outbreak.

Methods: We conducted a survey on all ED healthcare worker (n = 305) using the 12-item General Health Questionnaire (GHQ-12). The bimodal scoring of GHQ-12 was dichotomised into non-cases (score 0 – 2) and potential cases (score ≥ 3). Participation was strictly voluntary.

Results: The overall response rate was 273 (89.5%). Most respondents were females (73.3%); the mean age was 33 (SD 10.6) years. The mean GHQ score was found to be 1.9 (SD 2.7) with no gender-related differences. A comparison of the dichotomised GHQ-12 scores, found psychological morbidity to be more common in administrative staff (40%) and physicians (38.1%) than ancillary (24.2%) and nurses (19%) (p = 0.011). The average prevalence of psychological morbidity among ED staff was 25.3%. When we considered the 12 items of the GHQ separately and analyzed them by occupational group, we found physicians scoring the worst on item 6 - "Could not overcome difficulties" - than nurses, administrative and ancillary staff (p < 0.001). Physicians and administrative staff alike felt constantly under strain and were unable to concentrate compared to nurses and ancillary staff (p = 0.001).

Conclusion: Healthcare workers in an emergency setting unlike those in the rest of the hospital, face a wide range of risks on the job and this has a substantial effect on their mental well-being and job satisfaction.

(P2-69) Diagnosis and Management of Bile Leaks After Blunt Liver Injury by Dicct

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Background: Although bile leaks are emerging as frequent complications of non-operative management of liver injury, the best method to use to diagnose intrahepatic biliary injury (IHBI) has not been established.

Methods: Fifteen patients with a blunt liver injury admitted to the hospital during a two-year period, were diagnosed by computed tomography as having a grade 3–4 injury, and underwent DIC-MDCT intended to diagnose IHBI in its early stages. These 15 patients included 11 with a grade 4 (Group A: five patients who underwent TAE; Group B: six patients who did not undergo TAE) and four with a grade 3.

Results: In Group A, all of the patients were found to have some signs of IHBI in DIC-CT. Of these patients, two were found to have extrahepatic leakage and underwent local drainage; one also underwent ENBD. Three patients were not found to have extrahepatic leakage even though they had signs of IHBI; these three underwent conservative therapy with no other care, and had a satisfactory course. In Group B, only one patient was found to have IHBI. However, all of the patients, including those not found to have signs of IHBI in DIC-CT, recovered. Patients with grade 3 did not have signs of IHBI. Compared to Group B, Group A had a high Injury Severity Scale Score of 38.5 ± 11.2, and a higher incidence of IHBI.

Conclusions: DIC-MDCT may, in cases of severe liver injury that might require TAE, help to diagnose IHBI in its early stages,

and help to determine if additional treatment is needed based on the site and extent of the injury and whether extrahepatic bile leakage is present.

(P2-70) A Systematic Search and Narrative Review of Existing Literature on the Medium and Long-Term Impact of Injuries

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Background: A systematic search and narrative review of existing literature on the medium- and long-term impacts of injuries was conducted to provide context for a primary research study.

Methods: Searches were undertaken in MEDLINE, CINHAL and Science Citation Index using a combination of free text and Medical Subject Heading (MeSH) terms. Studies were included if they assessed outcomes following injury at least six months post-injury and reported morbidity-related outcomes. A standardized data extraction form was developed, and studies were assessed for quality using standard quality assessment criteria. The main characteristics of included studies were presented in structured tables and synthesized using a narrative summary.

Results: The search strategy identified 4,969 abstracts and/or titles, of which 125 appeared relevant. Following a detailed reading of the material, 32 studies met the inclusion criteria of this review. Summarizing the results of the studies was difficult, as they were of moderate quality and used many different methods. The main findings were that at 12 months post-injury a proportion of injured patients continue to suffer from physical, psychological, and social problems and this proportion doesn't decline over the next few years. In the medium term (12 months–5 years) about 10–25% of casualties continue to report a variety of health problems associated with their injuries.

Conclusions: It is difficult to synthesize injury outcome studies because of the varying methodological approaches, study populations, follow-up periods, and outcome measures used. The evidence that exists suggests that many casualties demonstrate good early recovery but a significant proportion still show significant social, physical, and psychological sequelae one to five years post-injury.

(P2-71) Topometric Agent-Based System for Disaster and Emergency Medicine

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Introduction: A variety of models, methods, and computer-aided systems have been used to predict and analyze disasters