(R96) Radiological Validation of Endotracheal Tube

Insertion Depth in Hospital Emergency Patients
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Introduction: Incorrect positioning of the endotracheal tube (ETT) after emergent intubation can result in serious complications. The aim of this study was to investigate the occurrence of ETT malpositioning after emergency intubation in the hospital setting.

Methods: A five-year retrospective study was conducted using records of 1,081 patients admitted to the emergency department (ED) at a University-Hospital. The study investigated patients referred to the University Hospital after receiving primary care including endotracheal intubation (ETI) in a peripheral hospital. Within 30 minutes after admission, a chest radiograph (CXR) or computed tomography (CT)-scan was routinely performed to determine the tube-tip-carina relationship.

Results: Sixteen of the 1,081 patients died in the ED, of the surviving 1,065 patients, 346 (32.5%) were female and 719 (67.5%) male. The CXRs were not available for 53 patients (10.9%). Detailed data on ETT placement was available in 435 patients, 111 of these patients were referred to the University Hospital after receiving primary care at peripheral hospitals. Of those patients, 92 (82.9%) were correctly intubated and 19 (17.1%) were incorrectly intubated (<2 cm above the carina/endobronchially). No esophageal ETT placement occurred.

Conclusions: This study shows that ETT misplacements in emergency patients are still a serious problem; with an incidence of 17.1% in this study when intubated in a peripheral hospital. It was concluded that the skill level of the operator may be key in determining efficacy of ETI. Based on the findings, all efforts should be made to verify the tube position with immediate radiographic confirmation after admission to the ED.

Keywords: endotracheal tube; hospital; intubation; misplacement; radiology

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(R97) Baseline Survey of Process of Care among Stroke Patients at the University of the Philippines Philippine General Hospital

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Introduction: In the Philippines, the prevalence of stroke is 30% of hospital admissions. Definitions of consultation, management, and disposition of emergency department stroke patients is necessary in order to develop quality indicators for stroke patients.

Methods: The University of the Philippines Philippine General Hospital is the largest tertiary care hospital in the country with 45,000 emergency department visits per year.

Patients with an initial diagnosis of stroke from 01 June to 31 October 2008 were identified prospectively. A registry of stroke patients was implemented using the Epi Info 6, using random sampling.

Results: The study had a total population of 177. The incidence rate for stroke was 0.9% at the Acute Care Unit (ACU) of the emergency department. The mean age was 55 years. The stroke population was 57.1% male. Twentynine (14.4%) were diagnosed with cerebrovascular disease that was undifferentiated, 36.8% developed an infarction, and 48.9% had an intracranial bleed. Diagnoses were made clinically without Cranial Scan. Only 27% had a computed tomography (CT) scan during their stay in the emergency department (34/143). Therapy was supportive and no patient received thrombolytic therapy. Dispositions within 24 hours are were: 102 were admitted, 39 (22%) stayed in the ACU-Observation Unit; 10 (7%) went home against advice; seven (4%) were discharged, and 17 (9%) died. Length of stay was 1.5 days, 5.2% were admitted within 24 hours (the longest stay was 10 days). Stroke incidence in the young was 27%, and was more common among males, odds ratio = 0.63. The youngest was 19 years old.

Discussion: The University of the Philippines Philippine General Hospital sees a higher incidence of stroke in the young. Hemorrhagic strokes had a higher incidence than the ischemic type. There was low utilization of CT scans within 24 hours in the emergency department. Ideal management warrants a scan within 45 minutes of arrival to facilitate interventions. This delay in treatment impacts on acute-onset infarct wherein thrombolysis is beneficial. Given the international guidelines for stroke management, the processes-of-care explored in this study e.g., utilization of CT scan, treatment modalities (thrombolytics), and disposition, is below what is considered best practices.

Keywords: care; emergency health; hospital; Philippines; stroke Prehosp Disast Med 2009;24(2):s33

(R98) Problems in Evaluating Mobile Clinic Activities Under the Medical Relief Program in the Earthquake-Affected Area in Mid-Java, Indonesia

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Objective: To understand the difficulty in collecting information through evaluating mobile-clinic activities, outline problems in the evaluation method, and consider the necessity of a mapping information system, such as a global positioning system (GPS).

Methods: The entire evaluation activity process was reviewed and future tasks were outlined.

Results: For the evaluation activity, there were plans to conduct interviews with personnel of local health centers in Puskesmas, where the mobile-clinic activities had been performed before. In addition, locations that the Japan Disaster Relief (JDR) medical mobile team visited were involved in the evaluation. The presenters visited four locations in Puskesmas in the morning, and visited Trimulyo Village, Pdon, where the JDR medical team had operated in the past. As a result, it became clear that, since immediately after the earthquake, POSKO was established, and managed and coordinated the disaster relief activities. Thus, it was not possible to obtain information of acute disaster phase in Puskesmas. According to the report, the HUMA Team served in POSKO. However, stakeholders