

the lowest level of bilirubin [Hazard ratio (HR) 0.72, 95% confidence interval (CI) 0.58-0.90 in level 3; HR 0.66, 95% CI 0.49-0.89 in level 4; p for trend= 0.016]. The risk of all stroke types also decreased as bilirubin levels increased (HR 0.81, 95% CI 0.68-0.97 in level 3; HR 0.74, 95% CI 0.58-0.94 in level 4; p for trend=0.0071). However, these associations were neither seen in hemorrhagic stroke nor seen in women. Conclusions: These findings suggest that serum bilirubin might have some protective function against stroke risk in men.

OT22-4

Expanded Program on Immunization in Bangladesh: Assessing Coverage and Gap in Two Selected Districts **Syed Muhammad Baqui Billah¹, Humayun Kabir², Subrina Jesmin³, Mohammad Sanaulla Shohel⁴**

1. Tokai University Graduate School of Medicine, Japan
2. World Health Organization, Bangladesh
3. International Medical Center of Japan, Japan
4. Mohammad Sanaulla Shohel, Japan

The study assesses the child immunization coverage through Expanded Program on Immunization (EPI) and performance in two districts namely Jessore and Satkhira in Bangladesh from 2005 to 2007. Target was assessed from the information of Geographical Reconnaissance (GR) report of Bangladesh Health Service, further classified by sub district level, namely Upazila coverage. The purpose is to look at the identify flaws by areas in need of further program attention. The analysis shows the irregular number of vaccination coverage for various types of vaccination; for example the coverage for BCG is not the same for coverage of DPT1 in the same area at same coverage period. It also shows lower coverage over time from BCG to Measles peaking at the coverage time of DPT2. Among the areas studied here, Jessore Municipality has the poorest coverage needing attention whereas Shyamnagar is the 2nd poorest on EPI coverage. After aggregating total coverage we further analyzed removing Municipality and find that not only Jessore Municipality, overall coverage is significantly decreased over time in almost all upazila level, indicating default children prevailing with incomplete immunization. Previous studies have shown that the coverage of child immunization was significantly associated with proximity to outreach clinics and the presence of a health worker in the community. Future studies would investigate the possible contributory factor responsible for the flows in coverage on EPI in the mentioned areas in Bangladesh and to think for alternative approaches for the successful coverage on EPI.

OT22-5

Incidence Rate and Influential Factors of Missed Injuries in Major Trauma Patients

Chao-Wen Chen¹, Chi-Ming Chu², Wen-Yu Yu³, Mau-Roung Lin⁴

1. Kaohsiung Medical University Hospital, Taiwan
2. National Defense Medical Center, Taiwan
3. Taipei Medical University Hospital, Taiwan
4. Taipei Medical University, Taiwan

Objective: This retrospective cohort study was to determine the incidence and influential factors of missed injuries in major trauma patients.

Methods: Medical records on all 976 trauma patients admitted to intensive care units in a tertiary care hospital from January 2006 to December 2007 were reviewed. Missed injuries were defined as those unidentified in the emergency department but recognized later in intensive care units. Injuries with the Abbreviated Injury Scale of ≥ 2 were defined to be clinically significant. Cox regression analysis was applied to control confounders and identify independent risk factors associated with occurrence of missed injuries.

Results: There were 133 missed injuries in 118 patients, for a missed injury prevalence of 12.1%, and 87 of these missed injuries in 78 patients were clinically significant. The incidence rate per 100 person-hours was 3.2 for missed injuries and 2.1 for clinically significant missed injuries. The most commonly involved body region of missed injuries was the head, followed by soft tissues and extremities. Cox regression analysis showed that younger ages, higher levels of injury severity, polytrauma, and absence of soft tissue injury were significantly associated with missed injuries, and younger ages, higher levels of injury severity, and presence of chest and pelvic injuries were significantly associated with clinically significant missed injuries. **Conclusions:** A considerable amount of injuries can be undetected in the emergency department. Younger ages, higher severity levels of injury, polytrauma, and presence of chest or pelvic injury are related to occurrence of missed injuries.

OT22-6

The Impact of Type 2 Diabetes on the Development of Hepatocellular Carcinoma in Different Viral Hepatitis Statuses

Chong-Shan Wang^{1,2}, Wei-Jen Yao³, Ting-Tsung Chang³, Shan-Tair Wang³, Pesus Chou¹

1. National Yang-Ming University, Taiwan
2. A-Lein Community Health Center, Taiwan
3. National Cheng Kung University, Taiwan

Background: The risk of type 2 diabetes on the development of hepatocellular carcinoma (HCC) remains inconclusive in different hepatitis statuses.

Methods: We prospectively followed a community-based cohort with 5929 persons (4117 seronegative, 982 anti-HCV(+), 696 HBsAg(+), and 134 co-infected) in southern Taiwan from January 1997 through December 2004. Before the study, 546 participants had developed diabetes. HCC diagnoses were from the National Cancer Registry.