

quality of chest compressions delivered by rescuers. It was hypothesized that greater variability in compression quality exists between rescuers than variability in individual rescuers over time.

**Methods:** In this observational pilot study, basic life support (BLS) providers from prehospital and in-hospital settings were invited to participate in the investigation. Ten minutes of continuous chest compressions were recorded on the Resusci Anne and the Laerdal PC Skillreporting System. An adequate compression was defined as a compression with depth > 38mm, full chest recoil, and correct hand position. The Quality Compression Index (QCI) was developed to factor rate into the characteristics of an adequate compression. QCI is a scaled performance index calculated every 30 seconds.

**Results:** Providers came from a variety of clinical backgrounds, aged  $35.5 \pm 11.0$  years. Of the 103 total participants, 94 (91.3%) completed 10 minutes of compressions. The most significant degradation in the quality of compressions occurred within the first two minutes. There was greater variability between different rescuers than the variability over time. Mean Square Error (MSE) due to subjects was comparatively greater than the MSE due to time (63.2 vs. 7.68). Performance of CPR, male sex, < 45 years of age, and prehospital background, correlated with higher quality. Time since last BLS certification and the number of times a rescuer completed a BLS class did not correlate with the quality.

**Conclusions:** Greater variability in the quality of compressions exists between different rescuers than a rescuer over time. Some participants were not able to deliver ideal compressions from the start, when the effects of fatigue were minimal.

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#### (A154) A Comprehensive Thrombolysis Service for Patients with Acute Ischemic Stroke Administered Prehospital and in an Emergency Department in Northern Taiwan

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**Background:** Golden time of thrombolysis therapy in acute ischemic stroke is only three hours. Emergency medical services transport and hospital prenotification were not been strengthened in Taiwan.

**Aims:** In order to elevate the medical quality of acute ischemic stroke, we developed a Quality Control Circle (QCC) focused on a comprehensive thrombolysis service for patients with acute ischemic stroke administered pre-hospital and in an emergency department.

**Methods:** QCC activities contained early recognition of acute stroke by EMT, hospital prenotification, early emergency management, activate the stroke team, shorten the time to CT scan and report, and early thrombolytic therapy. There were three policy groups via quality method analysis which these methods aimed to improve the efficiency and quality of management process focused on acute ischemic stroke.

**Results:** Group 1: After the implementation of QCC, the number of times of pre-hospital notification was six in Mar. 2010, achieve the expected standard. Group 2: Responses were received from 160 people for the pretest and 145 people for the posttest. In the pretest and posttest analysis, significant improvement in the attitudes of the physician group ( $p < 0.001$ ) and general behavior ( $p < 0.001$ ) were disclosed. The case-based educational module of acute stroke was better than the traditional oral lecture especially in the nursing group ( $p < 0.001$ ). Group 3: The rate of administering thrombolytic therapy/total ischemic stroke increased from 3.1% to 10.5 % (from Mar to Apr, 2010) after running the organized service. These activities reached the goal of expected standard (5%). All above groups were set up into standardization. The thrombolytic rate in effect maintenance was still around 5% eight months later.

**Conclusion:** Setting up and running a organized thrombolysis service for patients with acute ischemic stroke prehospital and in the emergency department can be a good method to increase the rate of administration of thrombolytic therapy.

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#### (A155) Acute Myocardial Infarction with Upper Gastrointestinal Bleeding

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**Objective:** To report a rare case of Acute Myocardial Infarction (AMI) along with Upper Gastrointestinal bleeding (UGIB).

**Presentation and Intervention:** A 58 year old male with history of black coloured stools was admitted in ER for chest pain and coffee ground emesis. ECG showed an acute inferior wall MI. After doing the necessary interventions, patient was inserted with a nasogastric tube and started on medications in the Emergency for UGIB followed by immediate endoscopy. Endoscopy confirmed presence of multiple superficial Ulcers in the stomach along with Esophagitis.

**Conclusion:** We support Esophagogastroduodenoscopy (EGD) prior to cardiac catheterisation in patients with AMI associated with overt Upper GI Bleed. This results in fewer complications as compared with direct catheterization

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#### (A156) Performance Indicators: Technical, Physical and Mental Readiness

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The purpose of this presentation is to report the results from a series of standardized exercises administered to experienced, disaster-emergency-responders on their “operational readiness.” Based on original research with Olympic athletes, these results include: a frontline-perspective of challenges in a disaster; a quantitative definition of “readiness;” and the creation of related performance indicators. A growing body of literature has drawn attention to the significance of mental-readiness skills in attaining peak performance in challenging situations. For example, we know that top-level athletes have particularly well-honed