programs throughout Harvard, including Beth Israel Deaconess Medical Center, and the hospitals of Brigham and Boston Womens, Childrens hospital and Massachusetts General Hospital. This program strives to educate the resident-physicians on current humanitarian issues throughout their respective residencies, which includes emergency medicine, internal medicine, and pediatrics. The two-year program includes a two-week course, participation in a field simulation exercise, a month-long field placement in a humanitarian setting, mentorship by HHI faculty, and production of an academic work in humanitarian studies. Fifteen of the pilot class of 19 resident-physicians (79%) completed the inaugural September course. With so many resident-physicians and medical students interested in "international medicine", and so little information of this sort available in structured programs, the HSIR provides a valuable and useful set of skills to those who will become professional humanitarian responders.

Each of the partnering institutions has developed areas of expertise, talent, and a distinguished faculty in the evolving field of humanitarian studies. Students at each institution can obtain a robust education in humanitarian studies while completing the requirements of their individual programs. This initiative has created bridges linking these institutions, which students can traverse to meet the educational needs required in humanitarian studies: flexibility, diversity, excellence, and comprehensiveness. This model will be discussed in order to include other academic training institutions, mid-career professionals, and medical students.

Keywords: hospital; humanitarian; international medicine; residency; resident-physicians
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Effect on Quality of Chest Compressions and Exhaustion of a Compression:Ventilation Ratio of 30:2 Versus 15:2 during Cardiopulmonary Resuscitation—A Randomized Trial

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Background: Recent Cardio Pulmonary Resuscitation (CPR) guidelines changed the compression:ventilation ratio from 15:2 to 30:2 increasing the ork/effort of the CPR provider.
Objective: To compare the quality of chest compressions provided and the rate of exhaustion ot the provider between the two compression:ventillation ratios.
Methods: A prospective, randomized crossover design was used. Each participant performed 5 minutes (min) of CPR on a mannequin either in the ratio of 30:2 or 15:2, rested for 15 min then swithced to the other ratio. The assessed outcomes included exhaustion, as measured by a Visual Analogue Scale (VAS) score, depth of chest compressions, rates of chest compressions, total number of chest compressions, number of correct chest compressions, and incomplete release.
Results: The study was completed by 130 subjects. The exhaustion score, using the VAS, was 5.9 (IQR 2.25) for the ratio 30:2 and 4.5 (IQR 2.88) for the ratio 15:2 (p <0.001). The compression depth was 40.5 mm (IQR 15.75) for the 30:2 ratio and 41 mm (IQR 15.5) for the 15:2 ratio (p = 0.5). The compression rate was 118 beats/min (IQR 29) for the 30:2 ratio and 115 beats/min (IQR 32) for the 15:2 ratio (p = 0.02). The total number of compressions/5 min was 347(IQR 79) for the 30:2 ratio and 244 compressions/5 min (IQR 72.5) for the 15:2 ratio (p <0.001) The number of correct compression/5 min was 61.5 (IQR 211.75) for the 30:2 ratio and 55.5 (IQR 142.75) for the 15:2 ratio (p = 0.001). The relative risk (RR) for incomplete release in the 30:2 ratio vs. the 15:2 ratio was 1.087 (95% CI = 0.633–1.867).
Conclusions: Although the 30:2 compression:ventillation ratio is rated by the provider to be more exhausting, this method delivers more chest compressions and the quality of chest compressions remains unchanged.

Keywords: cardiopulmonary resuscitation; chest compression; education; training; ventilation; ventilation ration
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Primary Trauma Care: Training Hospital Staff in Trauma Management

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Trauma is a leading cause of death in adolescents and young adults worldwide, particularly in developing countries. Doctors in developed countries typically have access to trauma courses that facilitate the appropriate management of trauma patients. The expense of these courses often discourages enrollment in developing countries. The courses also lack adaptability and coordination with local organizations.

The Primary Trauma Care (PTC) foundation was established in 1995 with the goal of preventing death and disability in seriously injured patients. Primary Trauma Care is an affordable and adaptable system for training doctors and other healthcare staff in hospital trauma management. It is founded on basic clinical practice, which does not require high-tech facilities. Primary Trauma Care is propagated through PTC courses, which have been held in 25 countries. The strategy involves early devolution of teaching and organization to local professionals, and adaptation to the clinical situation in each country.

Contents of the PTC course are based on the Airway, Breathing, Circulation, Disability, Exposure (ABCDE) system of trauma management. Teaching methods used include lectures, skill stations, scenarios, and discussion groups. Primary Trauma Care materials have been published by the World Health Organization (WHO) and incorporated into its recently published handbook, *Surgical Care at the District Hospital, and Essential Trauma Care* resource list.

The two-day PTC course is usually followed by a one-day instructors' course, in which participants are familiarized with how adults learn, how to plan and present a lecture, how to give feedback, how to lead a discussion group, and how to teach a skill.

Keywords: hospitals; hospital staff; Primary Trauma Care; teaching; trauma
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