

principle tailored to the individual patient. In addition, EBM might provide quality indicators for the assessment of care to bleeding patients at a local, national or international level.

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(P2-85) Automatic vs. Manual Bag Valve Resuscitation: An Experimental Bench Test

E. L'her, N. Marjanovic, S. Le floch, M. Jaffrelot

Urgences Adultes - Inserm U650, Brest Cedex, France

Introduction: Efficiency of resuscitation has been fewly assessed. The aim of our study was to compare standard manual to automatic ventilation using a new device.

Methods: 5 categories of healthcare professionals were included (paramedics, nurses, respiratory therapists, senior and junior emergency physicians; $n = 10$ in each group) and they evaluated 2 different apparatus: manual bag valve (BVM) and automated resuscitator (EasyCPR, Weinman). The experimental bench test consisted in an artificial test lung (ASL5000, IngmarMed), simulating 3 pathological status (COPD, ALI, ASA) and connected to a resuscitation-training manikin for the interface with the mask. Recorded parameters were: tidal volume (Vt), Peak Inspiratory Pressure (PIP), Residual Volume (Vr), overall distension (Vt + Vr), respiratory rate (RR). The ergonomoy of the device was assessed at the end of each sequence (1–very uneasy à 5–very easy to use).

Results: Mean Vt reached the goal (400–600 ml) for only 26% [0, 6–45] of the cycles with BVM and 29% [0, 3–80] with the CPR. Within a same pathological status, PIP was higher with BVM (21 ± 17 cmH₂O), as compared to CPR (11 ± 3 cmH₂O; $p < 0.001$). Mean RR was 18 ± 6 C/minute with BVM and 10 ± 2 C/minute with CPR. Overall distension was significantly higher with BVM (491 ± 328 ml; up to 1750 ml), as compared to CPR (380 ± 168 ml; $p < 0.001$). Ergonomy of CPR was considered better for paramedics and nurses ($p < 0.05$).

Conclusion: BVM resuscitation does not allow reaching the standards in terms of Vt and RR, and may expose to overpressure (gastric distension) and thoracic overinflation. Automatic resuscitation (CPR) may standardize emergency ventilation, allowing a better fit to recommendations and an ergonomoy enhancement.

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(P2-86) A Paradigm of Emergency Volunteering: The Case of a Remote Rural Area in Thailand

T. Chaleekrua,¹ S. Phlaimoi²

1. School of Medicine, Phayao Province, Thailand

2. Faculty of Social Science and Humanities, Nakron Phathom, Thailand

Background: Changes in gender roles, the nature of the family, marriage patterns, political shifts, the nature of work, and the increase in the number and severity of emergencies are influencing volunteering and changing it in accordance with these changes. This study in a remote rural area in the north of Thailand explores paradigms of emergency volunteering in such areas based on the concept of the multi-paradigm model of volunteering.

Methods: A sample of twenty stakeholders: leaders, village health volunteers, the director of the local administrative organization

and community heads provided data during in-depth interviews. Data were analyzed using content analysis.

Results: The results showed that the paradigms of emergency volunteering existing in the community were the functionalist paradigm and the interpreted paradigm. The functionalist paradigm relies on the belief in universal truths, thus emergency volunteering should be controlled and ordered. The community also believe that as a collective entity they achieve positive outcomes and benefits from emergency volunteering. In contrast, the interpreted paradigm relies on the belief in multiple truths. Thus emergency volunteering should be understood in terms of the individual experiences that emerge for each person from emergency volunteering. Furthermore, the community also believe that emergency volunteering should be focused on extracted cues and the process of helping emergency patients.

Conclusion: The conclusion of this study is that the management of emergency volunteering in the context of remote rural communities should be well ordered and be by consensus.

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(P2-87) Policy Study of the Helmet Legislation in Kerala, India and its Implications

N.S. Vishwanath

Public Health, Thiruvananthapuram, India

Background: When implemented properly, universal helmet law increases helmet use substantially, bringing along a reduction in mortality and morbidity due to head injuries. Kerala has seen tremendous success in regards to various indicators for health within India. But when it comes to wearing helmets, the state lags behind others with reported rates as less as 27%.

Method: A cross-sectional survey of 300 two-wheel drivers in Thiruvananthapuram City was performed, which looked into helmet wearing patterns, their determinants, and the risk perception among the respondents. Further, a content analysis of newspaper reports pertaining to helmet legislation from the Thiruvananthapuram edition of two leading newspapers was performed. The reports included were from the periods of July 2003 to June 2005 and July 2008 to June 2010. Lastly, in-depth interviews were conducted with informants from among the key stakeholders in helmet policy of the state.

Results: The study found 36.8% of the respondents wear a helmet. A scale to measure risk perception was developed for the purpose of this study. The four-item scale has been found to have internal consistency with a Cronbach alpha value of 0.74. The risk perception measured by using this scale has significant relation with helmet-wearing behavior. The content analysis helped in deriving a historical perspective of the policy along with the themes of reporting. The informant interviews provided expert opinions, problem identification, and specific recommendations.

Discussion: The practice of wearing a helmet is low, and people with lower risk perception have greater tendency not to wear helmets. Other findings also show that there are gaps in policy and lack of visionary leadership as far as the policy toward helmet legislation and its implementation.

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