Paediatric Resuscitation Instructor Training: Bridge to the future: from basic to highly advanced simulation


Introduction: Traditionally Resuscitation-courses use different levels of training & learning effects, but use of highly advanced simulation integrated into standard resuscitation courses is un frequently described (1)

Objectives: To supplement the didactic concepts in core-instructor courses for Pediatric Instructors in training with an overview of the range of simulation techniques from basic to highly advanced (2, 3) including live children (4).

Methods: An additional day to the standard core instructor course provided the following:

- Practical training on all stations of the PBL/PALS Pediatric Basic and Advanced Life Support provider course.
- A variety of debriefing techniques and mannequins.
- PBL/PALS-debriefing and materials on different stations:
  - Basic life support & respiratory insufficiency
  - Vascular access & neonatal resuscitation
  - The integration of real children into a trauma scenario
  - High advanced simulation with audio-debriefing (5)
  - Cardiac arrest & teamwork
- Here, instructor trainees worked as learners.

Instructor team was drawn from several formal teaching systems:

- Italian Society of Pediatric Emergency Medicine (SIMEUP) - American Heart Association - European Resuscitation Council
- 3 Highly Advanced Simulation Centers were involved: DRF-Luftrettung, PICU Manchester, White Cross

Nearly all instructors worked together in previous courses.

Results: Compared to standard core resuscitation instructor courses, instructor trainees of pediatric life support courses had:

1) more practical training by Instructor trainers with specific paediatric emergency background.
2) training at different levels of debriefing with different substitutes for real patients.
3) the course was international at instructor- and participant-level. The course was in German, English and Italian (Brixen/South Tyrol, 16th dec. 2009).

Conclusions: The different systems of resuscitation courses are sound, but often without the integration of highly advanced simulation which could enlarge and deepen the training effect of the trainees (4, 6, 7). Highly advanced simulation often not integrated into the continuum of low fidelity utilized by standard resuscitation courses.

Over the past few years we have worked on expanding the levels of simulation our courses offered. This additional day will hopefully contribute to broadening. A new pediatric simulation instructor course including sepsis module, triage, toxicology, and mass-casualties is planned and work is in progress.

References:

2) Wermter B. et al., Development of bilingual setting of pediatric basic and advanced life support: from basic life support to advanced life support. Implementation of the European pediatric life support course (EPS) in Germany and Austria, Resuscitation, Volume 70, Issue 2, August 2009, Pages 122-123.
7) Stewart D., Medical Training in the UK, Arch Dis Child 2003; 88:605-618

Additional info: A new intercontinental pediatric simulator course a variety course, a toxicology course and a triage course joining intercontinental experiences is in progress for 2009 at Hannover. Involved centers: EPLS Centre/South Tyrol, Austria, Children’s Hospital Vancouver, Canada, White Cross, South Africa, Health-Team Merz/South Wales, Berlin, Germany, Children’s Hospital St. Jude, Memphis, USA, Children’s Hospital Manchester, UK, Children’s Hospital Melbourne, Australia, Sydney, Netherlands, Children’s Hospital Manchester, United Kingdom, Children’s Hospital Geneva, Switzerland, Children’s Hospital Auschwitz-Brzezinka, Poland, Children’s Hospital Hannover, Germany.

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