

A PAEDIATRIC SIMULATION BASED COURSE FOR ALL BUDGETS

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IPSSW 2011

4th International Pediatric Simulation Symposia and Workshops
Toulouse, France, 26 -27 October 2011



INTRODUCTION: since about ten years we have international guidelines for treatment of pediatric sepsis. Early treatment requires: organisation, communication, cooperation between countyhospitals, rescue services and university tertiary pediatric intensive care units. Simulation based teamtraining is necessary.

OBJECTIVES: Better clinical outcome for patients implementing Simulation and Crew resource Management

METHODS/MATERIALS: cooperation between instructors from paediatric intensive medicine work and rescue organizations guarantees complete chain of pediatric sepsis-treatment during training. Technical Resources/ Budget: use of own material of resuscitation courses without highly advanced manikins, but with trained patient actors. For audiovideodebriefing has been used a standard PC with internetwebcam/-microphone including provided software. Course setting: one-group-course/6 participants/ 2 instructors tested.

RESULTS: due to economic crisis, the project suffered important delay, but this the demonstration, that low-budget simulation becomes more important. Programme:
1) Lecture: Paediatric Sepsis – early diagnosis/treatment / Infusionmanagement - 60 min. 2) Skill-Stations*: Paediatric Basic Life Support, vascular access (intraosseous/CVC), drug- / infusionmanagement - 90 min. 3) Triage - 60min. 4) Scenario-Station*: shock-management 30 min. 5) Simulation-based-scenarios including Audiovideo-debriefing. : communication / treatment between PICU/county-hospital 2x30min, Transport 2x45 min, PICU 2 x45 min. Pre-course lecture for participants. Quality of webcam-images and micro-sound has positively surprised. Good evaluation by course participants (*: station 2/ 4 may be reduced if participants are provider of Paediatric Life Support courses)



Instructors are preparing & testing setting and materials for the course (using space and materials of stress-testing-lab of the Department Paediatric Cardiology & Intensive Medicine – Medical School Hannover) - images taken from original webcamvideo



Real children simulation: preparation and briefing by instructors of White Cross and DRF German Air Rescue - here in Trauma-setting (Cusanus Academy – Brixen/Southtyrol) – images taken with digital camera



CONCLUSIONS: a compact low-budget simulation-based SEPSIS-course is possible and necessary to diffuse and train the whole chain of treatment. However highly advanced simulation including accredited Paediatric Life Support courses should remain the gold-standard for development of low-budget teaching tools.

Work in progress: integration of this work in the simulation course for primary care pediatricians of EPCPC European Confederation of Primary Care Pediatricians. Next future: try out course in cooperation with German Association of Primary Care Pediatricians (BVKJD).

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