

From paediatric basic life support courses to trauma courses with the help of simulation



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SIMEUP Italian Society of Paediatric Emergency Medicine

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***International meeting update on advanced simulation and life support –
Santiago de Compostela 1 December 2010***

PROGRAMME: http://www.provinz.bz.it/se/west/mup-paednotmed/MASTERCLASS_DEFINITIVO_SCQ.pdf

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- **The adventure :** **Definition of SIMULATION:**

- Various types of simulators exist,;
- from simple models to highly advanced, computer-driven systems
- From low realistic to highly realistic environment
- **Aim:** homogenous educational strategy from basic to highly advanced neonatal/paediatric emergency training (?)



- The **aim** was to unify and integrate teaching models and materials of simulation in paediatric emergency medicine integrating real children in Trauma scenarios.



- **Methods**
- **Screening of existing courses in my working area with trauma issues and stepwise educational and formal integration between 2003-2008:**
- Italian **PBLS Paediatric Life Support** since 1998, Italian **PALS Paediatric Advanced Life Support** 1998-2004, European PALS (“EPLS”) since 2003, **Paediatric Trauma Course/Module** since 2005 in provider and instructor courses including **real children, highly advanced Simulation** with paediatric mannequins including **CRM Crisis Resource Management** since 2007.



- **Results**
- **Integration between Italian PBLS and European PALS (2003).** European PALS=EPLS European Paediatric Life Support of ERC European Resuscitation Council. European Guidelines
- **Paediatric Trauma Course with real children** (Argentina 1990 / Spain 1996 / Southtyrol 2005) 2005 as supplementary module to european PALS and Instructor-courses in 2006 (Skill) and 2007 (scenarios). Since 2008 homogenous course offered in my working area integrating highly advanced simulation and realistic environments
- **1st level: PBLS(1day) – lay persons & health care provider**
- **2nd PALS (2 days) – health care provider**
- **3rd level: highly advanced paediatric simulation integrating real children + CRM cre ressourcemanagement** (5 scenarios with mannequins, 2 scenarios with children, 1 day) - **health care provider (low realistic and high realistic envireonment)**

- **Conclusions**

- Integration of different courses is possible increasing cost effectiveness. (Formal issues?)
- Real children in Simulation increase realism, communications skills and meet face to face with the specific pediatric patient situation.
- (-> non-paediatric health care provider)
- It is time for a unique International Standard for Paediatric Simulation Training (from basic to highly advanced and highly realistic) ?.



The actors = instructors

- How to train them ?
- Stepwise approach inside a complete
- chain of training supervised by expert
- instructors
- 1) PBLS Paediatric Basic Life Support:
 - Easy subject -> focus on didactical issues as instructor/team training for instructors:
 - Medical students/young doctors (trained as individuals at school of medicine) learn teamwork staying in course faculty with nurses and paramedics (trained as teamplayer)
- 2) Paediatric Advanced Life Support: aquisition of more professional abilities and medical background -> more complex instructor skills
- 3) -> entrance in the world of the big game: highly advanced simulation



le chef de la cuisine and the ingredients of the menue

- **Antipasto** – basic (PBLs)
- **Primo piatto**– advanced skills (PALS) & advanced scenarios (PALS)
- **Secondo piatto con contorni** – complex scenarios and environments
- **Formaggio, frutta, dolce** – Debriefing...

Ingredients:

- **Maniquins:** basic, advanced, highly advanced, actors
- Low tech -> high tech/human
- Low fidelity-> high fidelity

- **Environment:** low realistic – high realistic
- Low tech -> high tech
- Real / Virtual

- **Comunication, Teamwork, Debriefing**

The bill? ¿¿¿€€€€ \$\$\$\$\$???

- To begin: use existing spaces and materials in the hospital (in situ simulation) (webcams with microphones for 25€ are not so bad !)
- Cooperate with medical emergency associations and their schools



Fotoimpressions



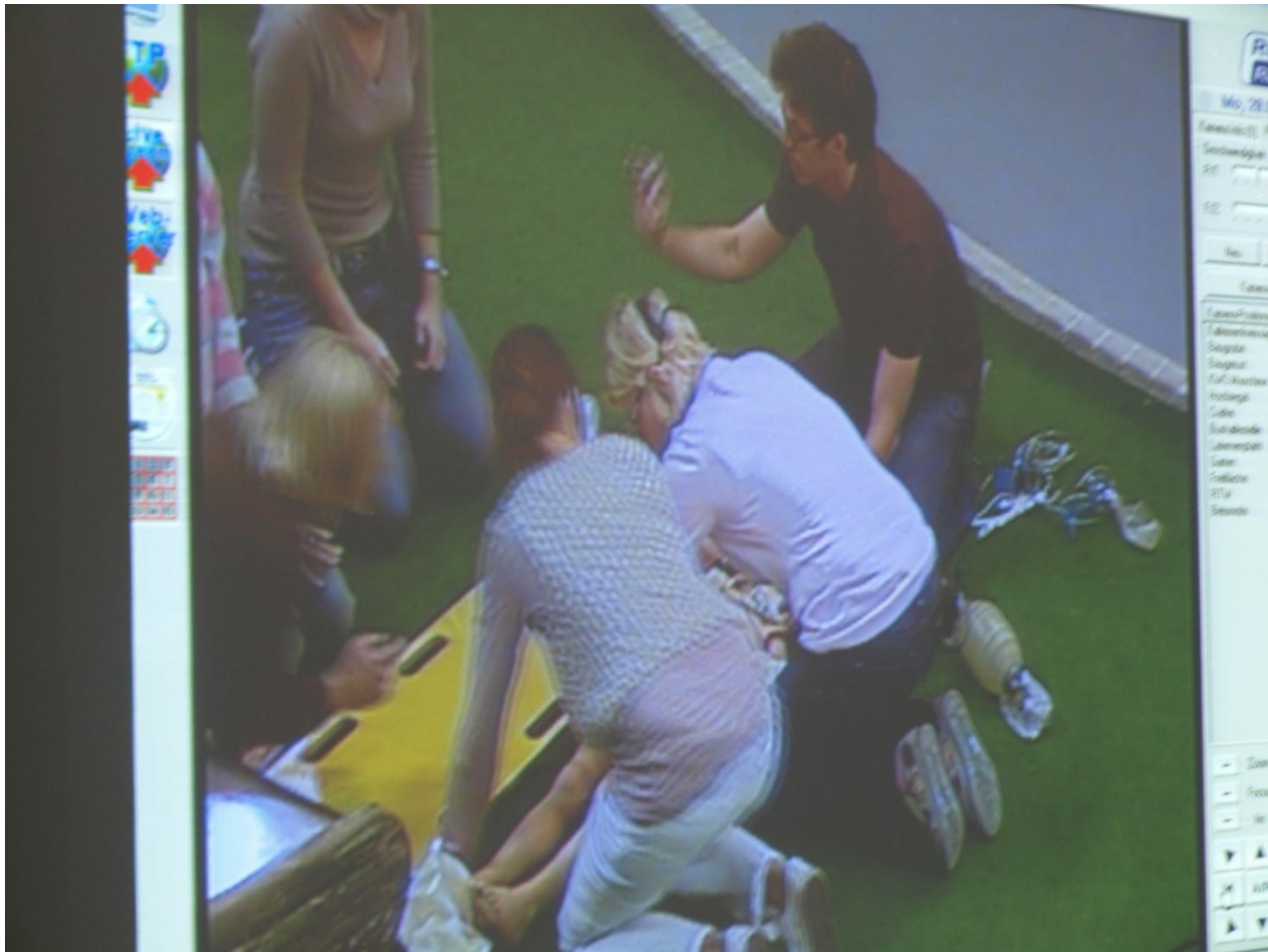
































Video: Real children in Paediatric Trauma course

<http://www.provinz.bz.it/se/west/mup-paednotmed/orf.wmv>



Herzlichen Dank für Ihre Aufmerksamkeit!



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NEW: IPSS International Paediatric Simulation Society