Patient handover at PICU: Introduction of a modified Formula 1 model

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Introduction
2010, during a visit to the CICU, Great Ormond Street Hospital (GOSH), England, we observed a method for patient handover after congenital heart surgery. A large study (Ped. Anesth. 2007, 17:470) aiming at increasing quality and safety developed a method that was clear, systematic and based on teamwork. The idea came from Formula 1 racing pit-stop technique and the method had been modified to suit the healthcare sector. The procedure was: written prehandover submitted by the surgical team to the CICU, clear roles and responsibilities for team members and an oral handover given by the pediatric anesthetist and pediatric cardiac surgeon to the CICU staff. Postoperative care was discussed and the responsibility handed over to the intensive care team. We saw potential benefits in introducing the model in our PICU, Skåne University Hospital Lund, Sweden, where approximately 300-350 children/year undergo cardiac surgery.

Method
A multi-professional working group consisting of a pediatric anesthetist, an anesthesia nurse, a pediatric cardiac surgeon, two critical care registered nurses and a nurse assistant was created. The team reviewed the existing literature and designed an observational study for the handover at our institution. A modification of the GOSH Formula 1 method was developed to fit our needs. A prehandover report sheet, checklists and report templates were devised. All involved professionals were informed prior to project launching. After a short trial period the final project was introduced and 10 weeks later evaluated using a questionnaire.

Results
A modified Formula 1 method was introduced and adapted to our PICU. The benefits of the project included clearer handover structure, coherent information to the PICU team, improved learning experience for all involved professionals, increased patient safety, time and economical savings.

Conclusions
We have with some modifications, successfully introduced a Formula 1 handover method for the cardiac patients in our PICU. We aim at applying the same strategy to all patients treated in our unit.

References
Catchpole Ken, et al, Patient handovers within the hospital: translating knowledge from motor racing to healthcare Qual Saf Health Care 2010; 19: 318-322