

# In-situ simulation in the operating room to train critical events in paediatrics: Opinion of health care professionals

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## Introduction

The experience indicates that the in-situ simulation is a valuable and secure tool for identifying needs, promoting effective communication, improving technical skills and implementing process improvements in a high-risk medical environment (Alkhulait et al, 2016).

## Objectives

To train the nurses and anaesthesiologists in critical anaesthetic events in Paediatrics; to use the existing recommendations for train leadership and communication in critical anaesthetic events in Paediatrics.

## Methods

An in-situ simulation session of two critical events was performed: one in the operating room and another outside of the operating room. It covered 29 nurses and 7 anaesthesiologists. This session focused on: identification of the situation; treatment of the cause; leadership; teamwork; knowledge of materials, equipment, protocols and circuits; debriefing. The evaluation of the session was made at the end of the training using free text. It was based on positive and negatives aspects and suggestions for improvement of the training session.

## Results

As positive aspects the participants mentioned the opportunity to simulate rare cases (41%); training of individual skills and group work - communication (18%); existence of protocols as a precious helper (9%); and the availability and capacity of the trainers to motivate the group (debriefing) (4%). The negative aspects were related to the high number of people per working group (23%); need to clarify what materials and equipment could be used (9%). Suggestions for improvement focused on communication training (14%); organization and importance of registrations (4%); preparation and administration of drugs in neonatal doses (4%); theoretical training on simulation so that professionals are more comfortable with simulation scenarios and concepts.

## 1. Briefing



## 2. Scenario



## 3. In-situ simulation



## 4. Debriefing



## Conclusions

After the two in-situ high fidelity simulation actions for training the team, they answered to feel better prepared to respond to the critical anaesthetic events in paediatric that may occur.

To further understand the complex interactions between healthcare providers and their environment, simulation is an important tool. In-situ high fidelity simulation is useful for training professionals. It turned out to be pertinent for working the team's response to critical events infrequent in pediatrics perioperative environment. The professionals showed satisfaction and called for the need for regular training including more frequent critical situations.