Using simulation as a teaching tool in the implementation of a new emergency intubation checklist

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Endotracheal intubation of child in an emergency situation can be a high risk and stressful procedure. The skill sets and experience of team members involved in an emergency intubation scenario will vary according to setting. Our paediatric critical care unit is in a large urban teaching hospital. In a retrospective audit of all emergency paediatric intubations across the hospital over a 3-month period we found that the existing safety checklist was not used fully or not used at all. We have taken steps to improve our checklist for paediatric emergency intubations and wanted to find measures to improve compliance in its use. Therefore, we decided to trial the new checklist using simulation-based teaching with both medical and nursing staff. We hypothesised that implementing the checklist in a safe simulated environment would increase clinicians confidence to use it in real life emergencies. Staff members completed a pre and post simulation questionnaire rating their confidence on a scale from 1 to 10 in preparing a team and equipment for an emergency intubation and their confidence in leading the team through an emergency intubation using the checklist. Preliminary data has shown an average increase in confidence rating of +2 points in preparation of equipment and +3.5 points in leading the team. The biggest confidence increase was in junior nursing staff. We are planning to expand on this preliminary data by training more PCCU staff to use the checklist in a simulated environment. We will then assess its use in real life intubations over the next 3 months on our unit with a view to rolling it out across our trust including in the paediatric emergency department and on the wards.