Critical Care Paediatric Grab Bag - Improving the quality of care by improving design
Dr Michelle Winter, Dr Marcin Pachucki

Background
Familiarity with equipment reduces the risk inherently associated with emergency intubation and critical care transfers. A paediatric 'transfer bag' was available to facilitate the provision of emergency airway management in non-theatre environment but Department of Critical Care (DCC) staff members have fed back about its bulky design, excessive weight, poor organisation, the presence of non-emergency equipment (Photo 1) and occasionally out-of-date stock.

Problem
We ascertained that there could be an improvement in rapid accessibility of emergency equipment required for intubation and ventilation if there was a logical layout of the DCC Paediatric Grab Bag. Previous ‘transfer bag’ had bulky design, was excessive in weight with poor organisation and presence of non-emergency equipment (Photo 1).

Methods
The transfer bag was reorganised and newly labelled (Photo 2). Compartments for paediatric intravenous (IV) access, defibrillation pads, intubation essentials, paediatric airway equipment organised in age/weight fashion were included. The airway equipment was ordered into 5 categories/pouches: neonate, infant, preschool, primary school, big child. Non-emergency stock was removed from the bag. A new checklist was devised (Figure 1) to aid with re-stocking after use and to ensure all equipment is checked after each use. A tag system on all the zips has been implemented to advise when the bag was last checked and subsequently sealed.

Results
DCC staff informally report a greater level of satisfaction with the new style of transfer bag and with this a greater confidence in managing airway emergencies in non-theatre environment. This increasing confidence seems to stem from the fact that staff will be able to access emergency equipment in a constant and familiar format.

BEFORE (LEFT)
Photo 1. Old kit, full bag with difficult to access equipment

AFTER (LEFT)
Photo 2. New bag with clear and easy to access layout: weight-based pouches

Building on a consensus to determine the ideal critical care transfer bag
Journal of Intensive Care Society 0(0) 1–9 2016 DOI: 10.1177/1751143716658612

Learning points
Complications and delays in airway management due to unfamiliarity with emergency equipment should be avoidable. The re-organisation of the Critical Care paediatric ‘grab bag’ appears to be a relatively simple but effective intervention in improving safety of providing airway management for a paediatric patient.

References
1. Van Zwanenberg G. A consensus to determine the ideal critical care transfer bag

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