Airway equipment provided by UK ambulance services

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Introduction

There is a basic logic that ambulance staff have access to a range of airway management equipment that they have been taught to use. One might therefore assume that the type and range of equipment across UK ambulance services is consistent. Previous work has suggested that this was not the case 1.

This study builds upon this work to determine whether the provision of equipment is now more consistent. This study also takes into account the growth in use of a range of supraglottic airway devices in prehospital emergency care.

Further analysis of the grades of staff authorised to undertake the range of airway interventions has been undertaken as part of this study, but is reported elsewhere.

Methods

All 14 ambulance services in the UK invited (via the Clinical/Medical Director) to complete an online questionnaire.

100% response rate after initial follow up

Comprehensive questionnaire collecting data on the provision of airway management equipment and the grades of staff authorised to undertake the procedure (only the former is reported here today)

Questionnaire completed on line using Bristol Online Survey tool.

Results

Key findings

- First study of this kind with participation of all ambulance services in the UK
- All ambulance services provide oropharyngeal and naso pharyngeal airways for airway management, but not all services provide a comprehensive range.
- The provision of OPAs of size 5 or above is uncommon. Size 3 OPAs are provided by all services.
- Size 6 & 7 NPAs are provided universally
- Tracheal tubes of sizes 6, 7 & 8mm are universally provided. Tracheal tubes in the full size (whole mm) between 3mm & 9mm are available in more than half the services. Less than half the services provide tracheal tubes in the half size (0.5mm) with the exception of the 2.5mm size provided by 50% of services.
- At best less than 75% of services have tracheal tubes suitable for children. Fifty percent of services have both supraglottic devices and tracheal tubes suitable for to the age of 2-3. Three services provide tracheal tubes but not SADs for children below 9-10 years. Only 1 service does not provide either tracheal tubes or SAD for children below the age of 8 years.

Discussion

It seems that over the previous decade new airway management equipment has entered ambulance service practice, most notable being a range of supraglottic airway devices. What has not changed is the inconsistency in the range of sizes of equipment. This is somewhat surprising given that the number of ambulance services across the UK has reduced from 35 to 14.

The evidence further suggests there is particular variation in the provision of advanced airway intervention for children in the form of a supraglottic airway device or tracheal intubation.

References


a Coventry University, b University of Worcester, c University of Surrey, d East Midlands Ambulance Service NHS Trust