A Light Light-source For Nasal Endoscopy Audit: The Ubiquitous Mobile Phone

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Background

Fibre-optic nasal endoscopy (FNE) provides assessment of the nose and airway. We audited the practicality of standard wired light-boxes and portable hand-held light sources to our novel use of mobile phone flashlights to attend emergencies.

Objectives

Audit of the mobile phone flashlight feature as an adequate light source for FNE during emergent reviews.

Methods

We carried out thirty consecutive reviews of patients in casualty and on wards:

- The first ten using a commercially available portable light source (fig 1).
- The second ten were with a trolley-mounted wired light box (fig 2).
- The final ten using a mobile phone with light source connector held perpendicular to the flashlight on full beam (Fig 3).

We compared the respective portability, reliability (light quality) and availability (within 1 minute of obtaining FNE), scoring either 1 or 0 for satisfactory on each clinical encounter.

Figure 1. Fibre-optic nasal endoscope with portable Pentax hand-held light source attached.

Figure 2. Fibre-optic nasal endoscope attached to a standard wired light-box.

Methods (cont.)

Figure 3. Fibre-optic nasal endoscope connected to the mobile phone flashlight by holding the connector perpendicular to flashlight.

Results

Our results (summarised below) showed:

- The wired lightboxes were reliable (i.e. satisfactory light quality) but not readily portable or available.
- The hand-held light sources were reliable and portable, but often not readily available.
- Mobile phone flashlights were reliable, portable and readily available - but required an assistant to maintain connection.

Throughout the audit period it was never necessary to change from a mobile phone light source to either of the standard light sources.

Conclusions

Mobile flashlights were a reliable and available light source for FNE. Its ubiquitous nature facilitates speedy reviews, particularly advantageous in emergent settings - but requires an assistant.