



## AB227. Tackling a challenging intubation in a child: awake fibre-optic intubation using dexmedetomidine

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**Abstract:** Awake fibre-optic intubation is uncommon, particularly in children. Dexmedetomidine is the sedating agent of choice in our centre for adult awake fibre-optic intubation. However, it has not been licensed for use in patients of less than 18 years and consequently, there is scarce research available concerning its use in this cohort. Nevertheless, dexmedetomidine is commonly used as a pre-medication in children in the intensive care setting. It is a selective alpha-2 adrenergic receptor agonist with both sedative and analgesic effects. Unlike most sedatives however, it causes minimal respiratory depression. Its duration of action is 30 minutes, and with its extended recovery time, post-sedation agitation is lessened. These

factors contribute to the use of dexmedetomidine as our agent of choice for awake-fibre optic intubation; a procedure not deemed to be overly painful, but requires sedation. The case to be discussed is that of a 14-year-old male who presented to a hospital in the west of Ireland with a 3-day history of reduced mouth-opening, left-sided jaw stiffness, and coryzal symptoms. Following a variety of antimicrobial regimes and investigation by X-ray, nasoendoscopy, ultrasound and computed tomography, the patient was found to have a left lateral pterygoid abscess which required surgical drainage, under general anaesthesia. This posed obvious difficulties from an airway point of view, with the child's mouth opening at less than one finger breadth. This challenge was overcome with the use of a dexmedetomidine infusion of 1.5 micrograms per kilogram per hour to perform an awake-fibre optic intubation. This procedure was atraumatic and performed without patient distress.

**Keywords:** Anticipated difficult airway in children; awake fibre-optic intubation; dexmedetomidine

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