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The Procedural Sedation Checklist Manifesto, Emergency Department, Jersey General Hospital

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Abstract : The Bailiwick of Jersey is an island British crown dependency situated off the coast of France. Jersey General Hospital's emergency department sees approximately 40,000 patients a year. It's outside the NHS, with secondary care being free at the point of care. Sedation is a continuum which extends from a normal conscious level to being fully unresponsive. Procedural sedation produces a minimally depressed level of consciousness in which the patient retains the ability to maintain an airway, and they respond appropriately to physical stimulation. The goals of it are to improve patient comfort and tolerance of the procedure and alleviate associated anxiety. Indications can be stratified by acuity, emergency (cardioversion for life-threatening dysrhythmia), and urgency (joint reduction). In the emergency department, this is most often achieved using a combination of opioids and benzodiazepines. Some departments also use ketamine to produce dissociative sedation, a cataleptic state of profound analgesia and amnesia. The response to pharmacological agents is highly individual, and the drugs used occasionally have unpredictable pharmacokinetics and pharmacodynamics, which can always result in progression between levels of sedation irrespective of the intention. Therefore, practitioners must be able to 'rescue' patients from deeper sedation. These practitioners need to be senior clinicians with advanced airway skills (AAS) training. It can lead to adverse effects such as dangerous hypoxia and unintended loss of consciousness if incorrectly undertaken; studies by the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) have reported avoidable deaths. The Royal College of Emergency Medicine, UK (RCEM) released an updated 'Safe Sedation of Adults in the Emergency Department' guidance in 2017 detailing a series of standards for staff competencies, and the required environment and equipment, which are required for each target sedation depth. The emergency department in Jersey undertook audit research in 2018 to assess their current practice. It showed gaps in clinical competency, the need for uniform care, and improved documentation. This spurred the development of a checklist incorporating the above RCEM standards, including contraindication for procedural sedation and difficult airway assessment. This was approved following discussion with the relevant heads of departments and the patient safety directorates. Following this, a second audit research was carried out in 2019 with 17 completed checklists (11 relocation of joints, 6 cardioversions). Data was obtained from looking at the controlled resuscitation drugs book containing documented use of ketamine, alfentanil, and fentanyl. TrakCare, which is the patient electronic record system, was then referenced to obtain further information. The results showed dramatic improvement compared to 2018, and they have been subdivided into six categories; pre-procedure assessment recording of significant medical history and ASA grade (2 fold increase), informed consent (100% documentation), pre-oxygenation (88%), staff (90% were AAS practitioners) and monitoring (92% use of non-invasive blood pressure, pulse oximetry, capnography, and cardiac rhythm monitoring) during procedure, and discharge instructions including the documented return of normal vitals and consciousness (82%). This procedural sedation checklist is a safe intervention that identifies pertinent information about the patient and provides a standardised checklist for the delivery of gold standard of care.

Keywords : advanced airway skills, checklist, procedural sedation, resuscitation
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