Just-In-Time Learning Series: AN INTRODUCTION TO AIRWAY MANAGEMENT IN THE DISASTER SETTING



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Airway

Indications for Intubation

Everything else

Impending airway compromise

Circulation

Need to perform an emergent/urgent procedure

Breathing

Severe shock and acidosis

Disability

Hypoxemic or hypercapnic respiratory failure (Pneumonia, ARDS, Status Asthmaticus or Severe COPD Exacerbation)

Inability to protect the airway due to reduced consciousness Prevent secondary brain injury

Rapid Sequence Intubation (RSI) 6P's Approach:

Preparation

Room, airway equipment, suction, monitor, IV, RSI meds, vasopressors

Pre-oxygenation

Non-rebreather, non-invasive ventilation, BMV, heated-high-flow nasal cannula

Positioning

Ear above sternum, sniffing position, ramp

Paralysis with induction

Improves laryngoscopic view, minimizes aspiration risk

Placement Women 21cm, men 23cm @teeth, ETCO2, auscultation

Post-intubation

CXR, monitor for hypotension, additional sedation (avoid paralysis w/o sedation)

<u> Airway Management Plans</u>

PLAN A

Initial Intubation Strategy:

Rapid Sequence Intubation and Direct Laryngoscopy (Max 1 attempt)

Followed by video laryngoscopy (max 1 attempt), if needed use bougie (max 1 attempt)

MAX 3 ATTEMPTS TOTAL

Induction and Neuromuscular Blocking Agents

Medication	Dose	Utility	Contraindication/Caution				
Sedation/Induction							
Etomidate	0.1-0.3 mg/kg	Patients in shock	May cause adrenal insufficiency				
Propofol	0.5-2.5mg/kg		Low BP, low HR				
Ketamine (IV)	1-4.5mg/kg	Asthma	Increases secretions				
Ketamine (IM)	6-13 mg/kg	Lack of IV access	Increases secretions				
Midazolam	0.15-0.3 mg/kg						
Neuromuscular Blockade							
Succinylcholine	1-1.5mg/kg	Onset 30-60 secs	Hyperkalemia, h/o malignant hyperthermia, burns, rhabdomyolysis, spinal cord injury or stroke (>72 hrs), neuromuscular disease or myopathy				
Rocuronium	1.2mg/kg	Onset 60-90 secs	Duration 1 hr.				

Helpful adjuncts: vasopressor boluses: phenylephrine 100-300mcg IV q3 min, norepinephrine 4-10mcg IV q3 min, or continuous infusions; glycopyrrolate 0.2-0.4 mg for secretions, fentanyl 0.3-3mcg/kg for pain

Airway Management- Process and **Planning** Anatomic Factors Zero plus Zero plus 45 Zero minus 10 Physiologic Situational 20-30 secs minutes 5 minutes Factors Factors Preparation Post-intubation Preoxygenation Induction with Positioning Equipment Paralysis confirmation management Suction End-tidal rebreather sniffing Monitor High-flow CO₂ RSI meds auscultation oxygen Non-invasive vasopressors ventilation

PLAN B

PLAN C

Secondary intubation strategy: Can't intubate, can't ventilate: place an LMA or intubating LMA

cricothyrotomy (surgical airway)

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