

Coronavirus COVID-19

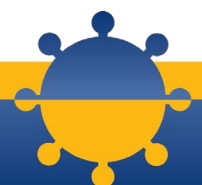
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Emergency Department Procedural Sedation Guidelines during COVID-19 Pandemic for Children and Adults

October 1, 2021

This guidance is intended for health-care providers and is based on known evidence as of October 1, 2021.



General principles

- The guidance provided here relies on health-care workers (HCW) performing a point of care patient risk assessment (PCRA) for COVID-19 based on [common symptoms](#)¹. **Clinical judgement and current information on local prevalence rates will determine COVID-19 risk.**
- It should be acknowledged that it is often difficult to carry out adequate COVID-19 risk factor screening as the emergency department provides care in a time-critical environment with many unknown factors. In times of high community spread, the majority of patients will have COVID-19 risk factors.
- While procedural sedation carries a low risk of an aerosol generating medical procedure (AGMP) occurring, no delay can occur when an AGMP is required.
- Bag mask ventilation and endotracheal intubation are considered AGMP, while low-flow oxygen therapy including nasal prongs, simple mask, non-rebreather mask up to 15L/min and nitrous oxide administration are not considered an [AGMP](#)².
- If in the clinician's judgement the patient has followed physical distancing recommendations and is considered low-risk after adequate COVID-19 screening has taken place, it is recommended that the respiratory therapist (RT) or assistant and medical doctor (MD) wear droplet precaution personal protective equipment (PPE) – surgical mask, gown, gloves and eye protection.
- When there is incomplete or unknown clinical data or during times of high community prevalence, patients should be considered moderate risk for COVID-19 and it is recommended that an N95 mask/respirator be immediately available to the RT and MD should an AGMP be required.
- For patients considered high-risk for COVID-19 the RT and MD are recommended to be wearing airborne PPE (N95 respirator, gloves, gown, eye protection) in recognition that an aerosol generating medical procedure (AGMP) (e.g., BVM ventilation and/or intubation) may be required.
- For all suspect and confirmed COVID-19 patients, avoid deep sedation whenever possible - consider local, regional anesthetic or a combination of local/regional anesthesia with light sedation.
- Document on the procedural sedation record.

Assessment/ Planning

- Assess COVID-19 risk¹.
- For patients high-risk or moderate risk for COVID-19 consider the following:
- Confirm need for procedural sedation and consider anesthesia consult or non-sedation options, e.g., operating room.
- Consider ketamine analgesia rather than opiate analgesia to limit risk of respiratory depression. Suggested dose 0.1 – 0.3 mg/kg IV over 15 minutes³.

- Consider ketamine as the sole sedation agent whenever possible⁴. Suggested dose 1.5 mg/kg IV initial bolus, then 0.5 mg/kg IV repeat dose as required.
- If using propofol or ketamine-propofol combination (ketofol)*, dose in small increments slowly to limit respiratory depression⁵. Suggested dose for propofol or single-syringe ketofol is 0.5 mL/kg IV initial bolus, then 0.25 mL/kg aliquots; If age>60 use (100-age) as initial bolus. Doses to be injected slowly over 30 to 60 seconds.
- For separate syringe ketamine/propofol use ketamine 0.2 – 0.5 mg/kg followed by propofol titrated as described above.

*In sites where ketofol is approved for use common mixing ratios include 1:1 ketamine/propofol, and 1:4 ketamine/propofol^{6,7}. Volume of dosing is identical for different ratios.

- Intra-nasal) medications can be used for analgesia and anxiolysis as per approved protocols. Staff should don droplet precaution PPE, stand behind or beside the patient and immediately replace the surgical mask over the patient's mouth and nose after intra-nasal medication administration.
- For suspect or confirmed COVID-19 patients, health-care worker should wear airborne precaution PPE and minimize bedside staff.

Setting/ Team members

- For suspect or confirmed COVID-19 patients:
 - Procedures should take place in a negative-pressure isolation room.
 - Or, if not available, use private closed-door room.
 - Or, if not available, close curtains around the patient and ensure curtains closed around other patients in the same room.
 - Place a surgical mask with ear loops to facilitate easy removal on the patient to minimize droplet spread.
 - Emergency physician and respiratory therapist or second health-care provider to be wearing airborne precaution PPE.
 - All other team members inside the room to be in droplet precautions PPE during the procedure. Those in droplet PPE are to leave the room prior to any AGMP being performed.
 - If in a closed-door room, ensure alternative method of communication is established (e.g., two-way radio or baby monitor).

Sedation procedure

- Bag valve mask with viral filter prepared.
- Capnography recommended when available to facilitate early detection of apnea/respiratory depression⁸.
- Pre-oxygenate with non-rebreather mask with one-way exhalation valve placed over the capnography nasal cannula at 15L/min for minimum three minutes⁹.
- Remove non-rebreather mask after pre-oxygenation and continue oxygenation through the capnography nasal cannula⁹.
- Consider placing surgical mask with ear loops for easy removal on patient during the procedure to minimize droplet spread¹⁰.
- If using nitrous oxide ensure an in-line viral filter is used.

Hypoventilation management

- Oxygen desaturation with apnea or hypoventilation should be managed initially with jaw thrust and stimulation maneuvers⁵.
 - Apnea or hypoventilation with normal oxygenation should be managed with watchful waiting and/or stimulation and jaw thrust⁵.
 - If assisted ventilations required, communicate to the team before attempting.
 - All team members to leave room and close door except for providers wearing airborne precaution PPE. Hand hygiene to be performed after exiting.
 - Two-handed seal with low tidal volume breaths and low ventilatory rates recommended.
- Ensure regular communication with staff outside room to minimize entry/exit regarding status of patient and what assistance is required.

References

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