Jet Insufflation

PROCEDURE

STEPS

1. Confirm the indication: cannot intubate, cannot ventilate — declare the failed airway
2. Place the needle cannula through the cricothyroid membrane into the trachea
3. Confirm placement: aspirate air freely; watch for subcutaneous emphysema
4. Connect the jet device (or ENK modulator) to a full, high-pressure oxygen source
5. Deliver a short burst of oxygen — about one second — and watch the chest rise
6. Release completely and allow full exhalation, roughly three to four seconds
7. Repeat: short breath in, long pause out. Never stack breaths on a full chest
8. Reassess SpO2 and chest movement continuously; proceed to a definitive airway

BEFORE YOU START

- Indication: oxygenation bridge in a failed airway, through needle cricothyrotomy access
- Needle Jet Airway is a P3 Paramedic III skill in the Mercy guidelines (p.194)
- The patient must have some path for gas to escape, or pressure will injure the lungs

KIT YOU NEED

- Jet ventilator or ENK Flow Modulator set, needle cric cannula
- Full oxygen cylinder and high-pressure tubing
- Syringe, securement, BVM, and surgical airway kit as the backup plan

IF IT GOES WRONG

- Chest rises but doesn't fall: stop jetting, allow exhalation, reassess before the next burst
- Rapid emphysema, falling SpO2: cannula displaced or kinked — replace it or go surgical
- This only oxygenates; CO2 still climbs. Minutes count — it never replaces a definitive airway

Take Home Message:

Jet insufflation is a short bridge: brief burst in, long pause out, and a constant push toward a definitive airway.