

# Pharmacology

## Chapter 3

### Premedication

The sixth "P" of RSI is premedication. Intubation - placing a big piece of metal down someone's throat and then jamming a large plastic tube through their vocal cords - is a noxious procedure to which the body may appropriately respond with tachycardia, hypertension and increased intracranial pressure. The medications used to facilitate RSI may have their own dangerous side effects such as bradycardia or muscle contractions.

Premedications are those medications given before the induction agent and paralytic with the intention of reducing the patient's adverse physiologic responses to the subsequent medications and intubation.

Potential premedications fall into three classes: 1. drugs used to prevent bradycardia, 2. drugs used to prevent bronchospasm, and 3. drugs used to minimize sympathetic outflow/rises in intracranial pressure. All three classes of premedications require at least 3 minutes of circulation time in the body prior to the administration of subsequent medications and/or intubation to be effective; this often limits their usefulness in emergent airway cases. During that 3 minute interval be ready to provide BVMV and intubation; some fragile patients may become apneic from premedications alone.

*Airway911 Consensus:* Despite ongoing research and healthy debates, none of the premedications should be considered "Standard-of-care". None are without risk either.



### Drugs to Prevent Bradycardia: Atropine

Kids are just one giant Vagus nerve covered in germs! Infants and young children may develop bradycardia during RSI from laryngoscopy, hypoxemia and/or direct medication effects. Infants and children may rarely develop profound bradycardia from propofol or succinylcholine as can anyone, young or old, receiving a second dose of succinylcholine.



It is often recommended that atropine be given "prophylactically" before succinylcholine is administered to any child less than 6 years of age. Some sources recommend atropine to pretreat any infant less than 1 year of age being intubated, regardless if succinylcholine is used. Potential risks of atropine include dysrhythmias and masking hypoxemia. There is very little evidence to support or refute atropine pretreatment. Whether or not it is given prophylactically, atropine should be readily available at the bedside during any pediatric intubation and any time succinylcholine is being used.

*Airway911 Consensus:* Skip the atropine but have it immediately available. Avoid succinylcholine altogether in kids when possible. If using succinylcholine use large enough doses that re-dosing is never necessary.



#### Atropine

Action:	Acts to antagonize vagal stimulation.
Dose:	0.02 mg/kg, minimum of 0.15, maximum of 0.5 mg
Peak:	3 minutes
Duration:	30 minutes
Adverse:	Tachycardia (rare)