

Al Mustaqbal University

College of Health and Medical Techniques

Department of Anesthesia



Practical Anesthesia

Stage Two

Lecture 2

Rapid Sequence Induction RSI



By Lectures

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Rapid Sequence Induction (RSI)

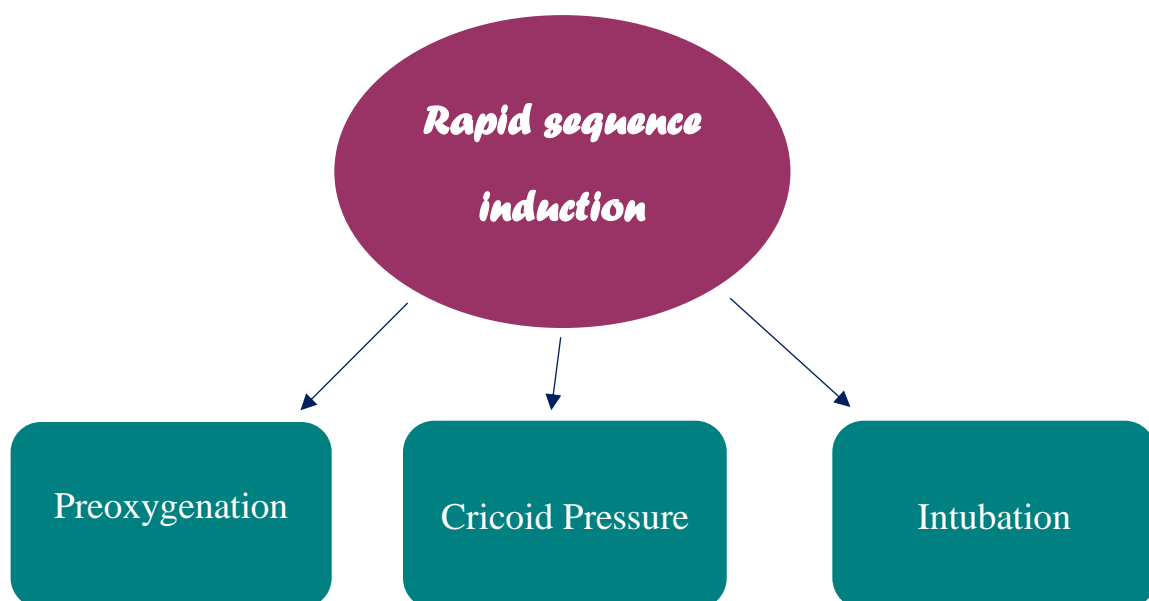
Rapid sequence induction (RSI) is an airway management technique that induces an induction agent and muscular relaxation and is the fastest and most effective means of controlling the emergency airway.

Indications of RSI

Every anesthetic, **not just emergency work**, should be considered from the point of view of unexpected vomiting and aspiration.

Patient with a high risk of aspirations:

1. Abdominal pathology.
2. Delayed gastric emptying (Pain, trauma, opioids, alcohol)
3. Incompetent lower esophageal sphincter, hiatus hernia.
4. Altered conscious level → Impaired laryngeal reflex
5. Neurological / Neuromuscular disease.
6. Difficult airway.
7. Pregnancy.

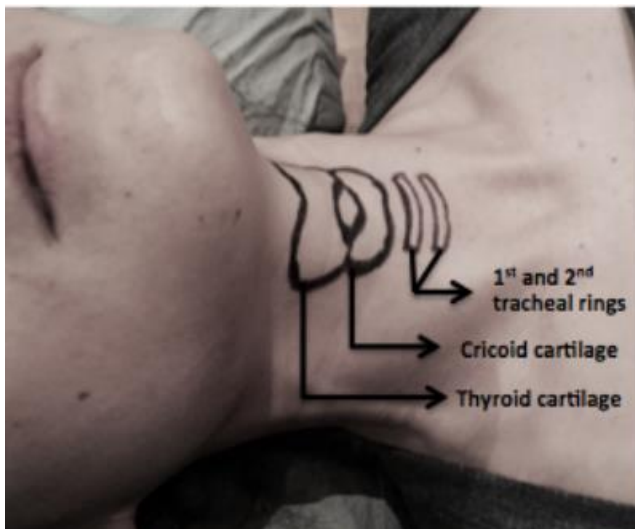


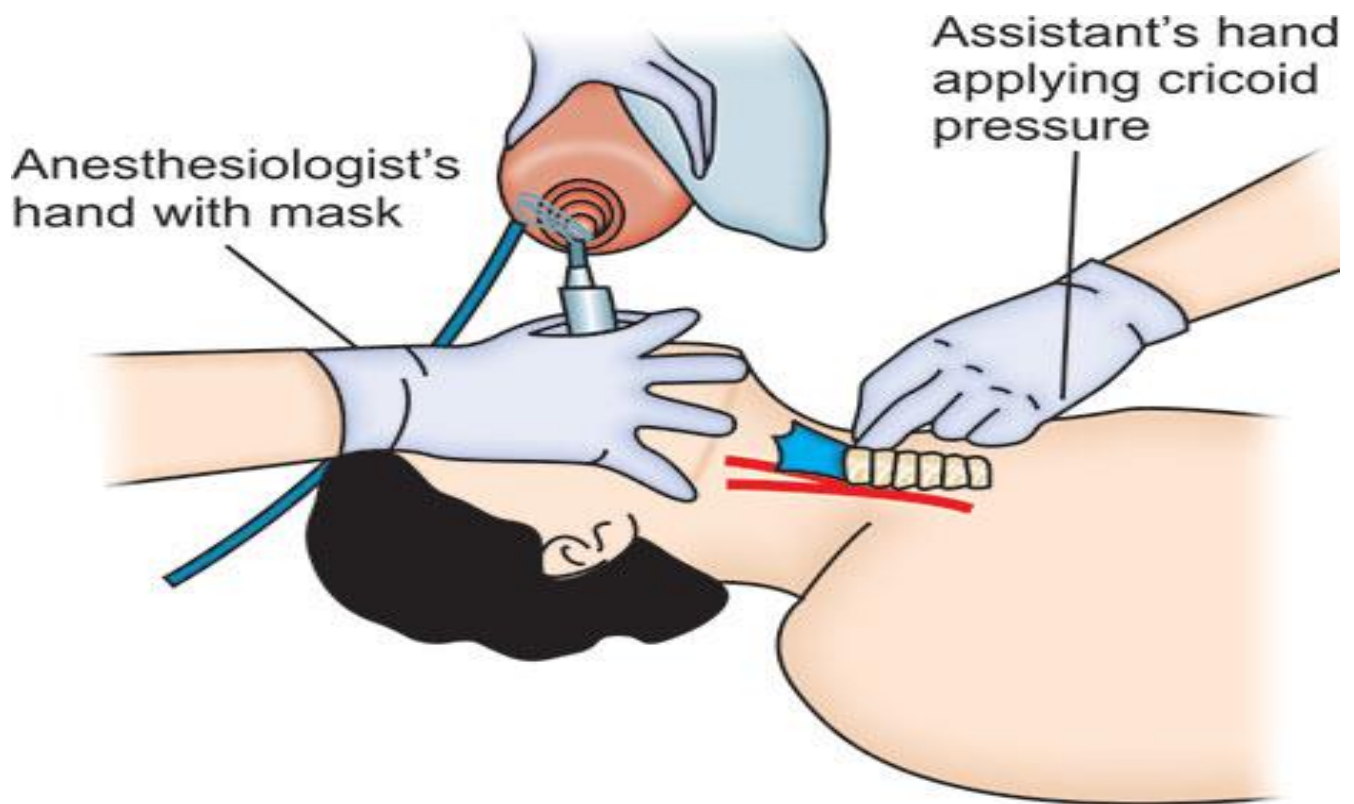
Preoxygenation

- **Breathing 100% oxygen** for at least 3 minutes before induction.
- In breathing oxygen only, the lungs denitrogenate rapidly and after 3 minutes contain only oxygen and carbon dioxide.
- There is a greater reservoir of oxygen in the lungs to utilize before hypoxia occurs.

Cricoid Pressure

- **Identifying** the cricoid cartilage on the patient before induction of anesthesia.
- **Warning** the patient that they might feel pressure on the neck as they sleep.
- **Pressing** down on the cartilage continuously until telling the anesthetist to the assistant to stop.
- **10 N** of force is applied by the thumb and index finger of an assistant increasing to **30N** once consciousness is lost.
- **Object** compressing the esophagus between the cricoid cartilage and vertebral column.





Intubation

- The neuromuscular drug must act **rapidly** and have a short duration of action such as (Succinylcholine).
- The lungs are **not ventilated** during a rapid sequence induction; this will prevent accidental inflation of the stomach, which will further predispose the patient to regurgitation and vomiting.
- An agent with a short duration of action is valuable because in cases of failed intubation spontaneous respiration will return promptly.

Note: Major disadvantage of potential **hemodynamic instability** of rapid sequence induction: **hypertension** and **tachycardia** following laryngoscopy and intubation.