# Percutaneous Tracheostomy (PCT) without Bronchoscopy

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# Tracheostomy

Indications:

1. Airway protection

2. Weaning from mechanical ventilation (MV)

# Tracheostomy and MV

- Airway cleaning
- Comfort
- Decreases airway resistance
- Weaning

# Tracheostomy

- Surgical Standard Tracheostomy versus PCT:

- PCT:
- more practical;

- made by clinician;

# Surgical Standard Tracheostomy versus PCT:

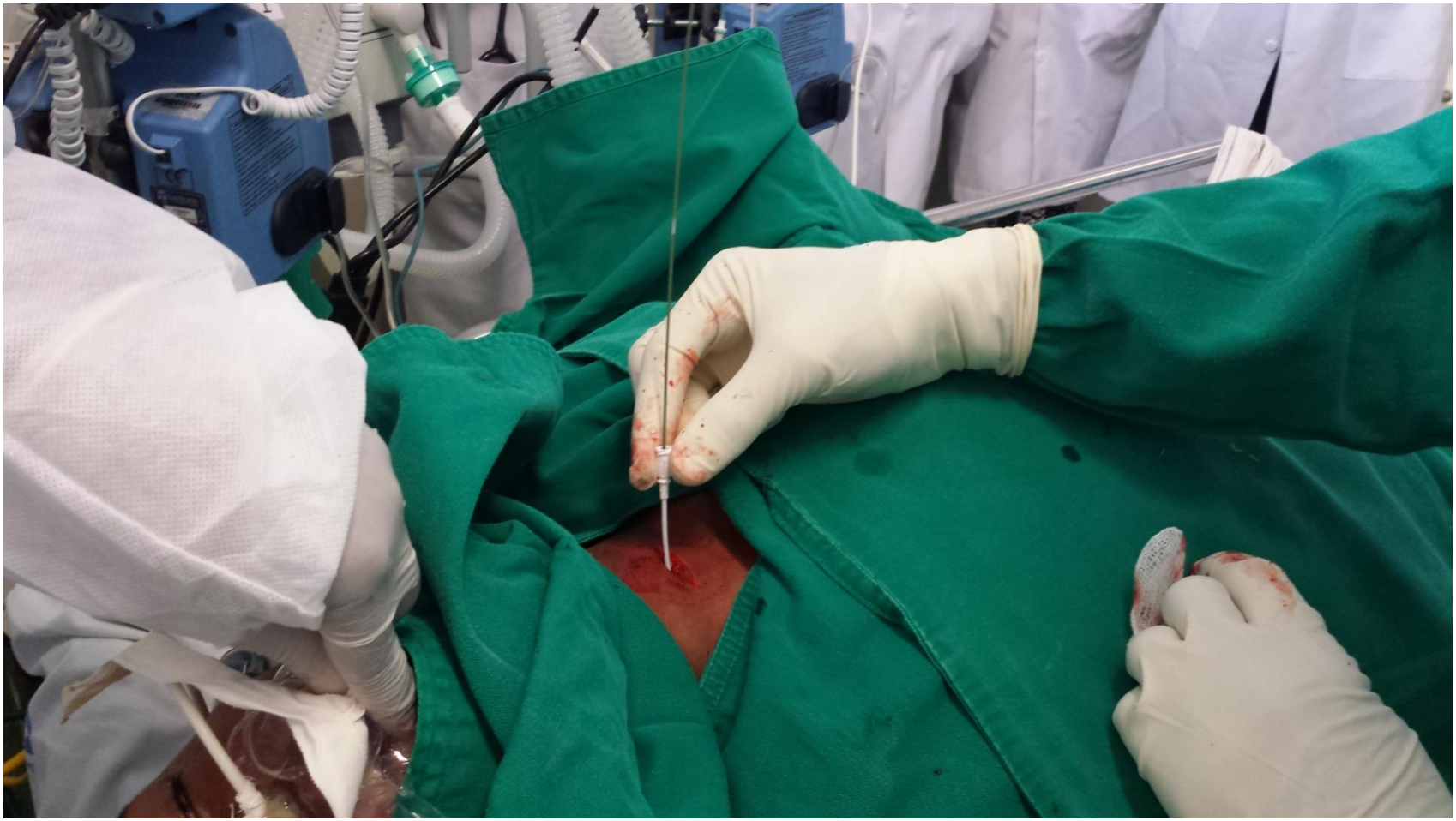
- PCT:
- less hemorrhage;
- less infection.

# Ciaglia in 1985 introduced PCT Technique

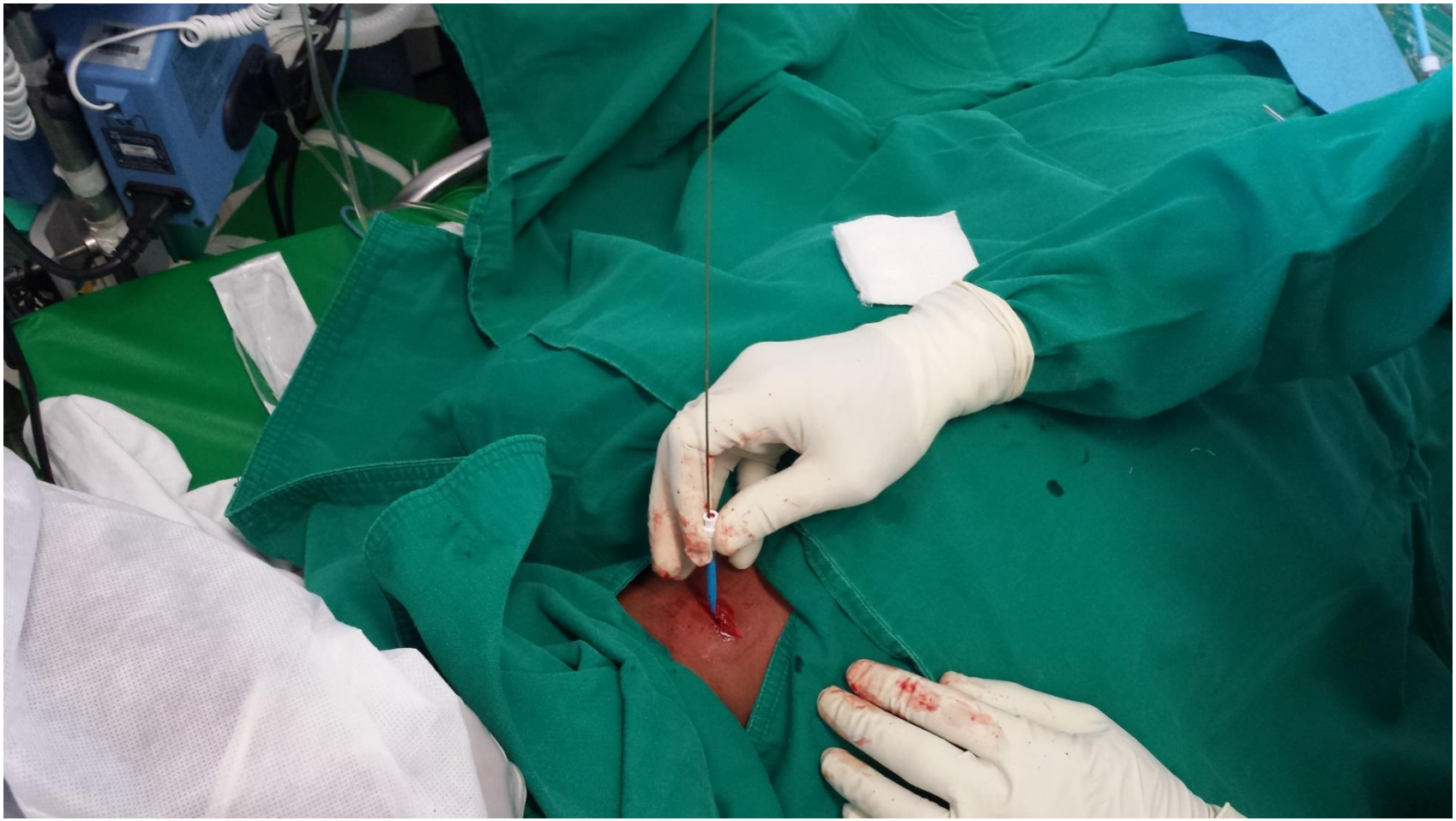
# Ciaglia’s technique - incision

# Ciaglia’s technique - puncture

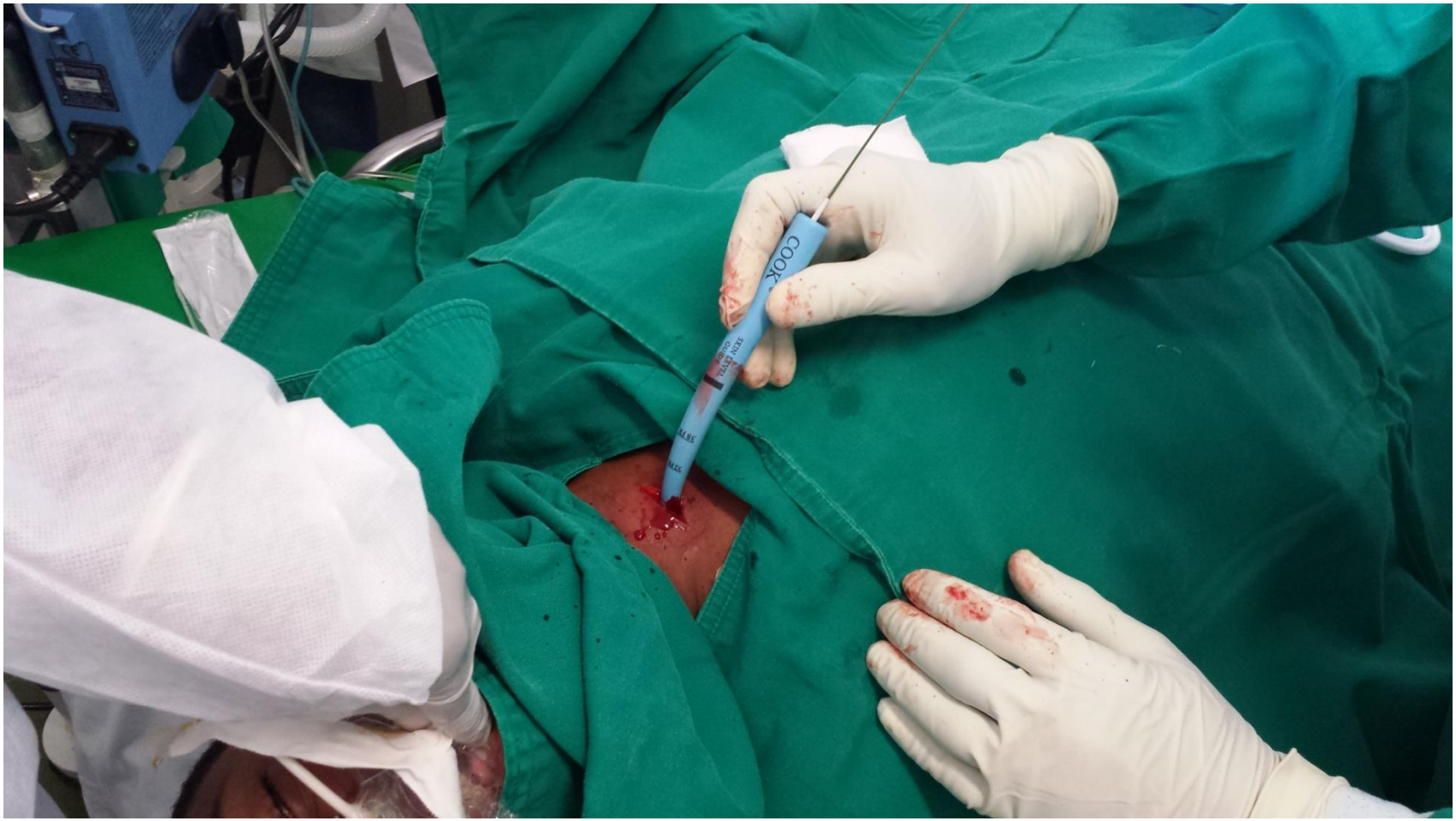
# Ciaglia’s technique - guidewire



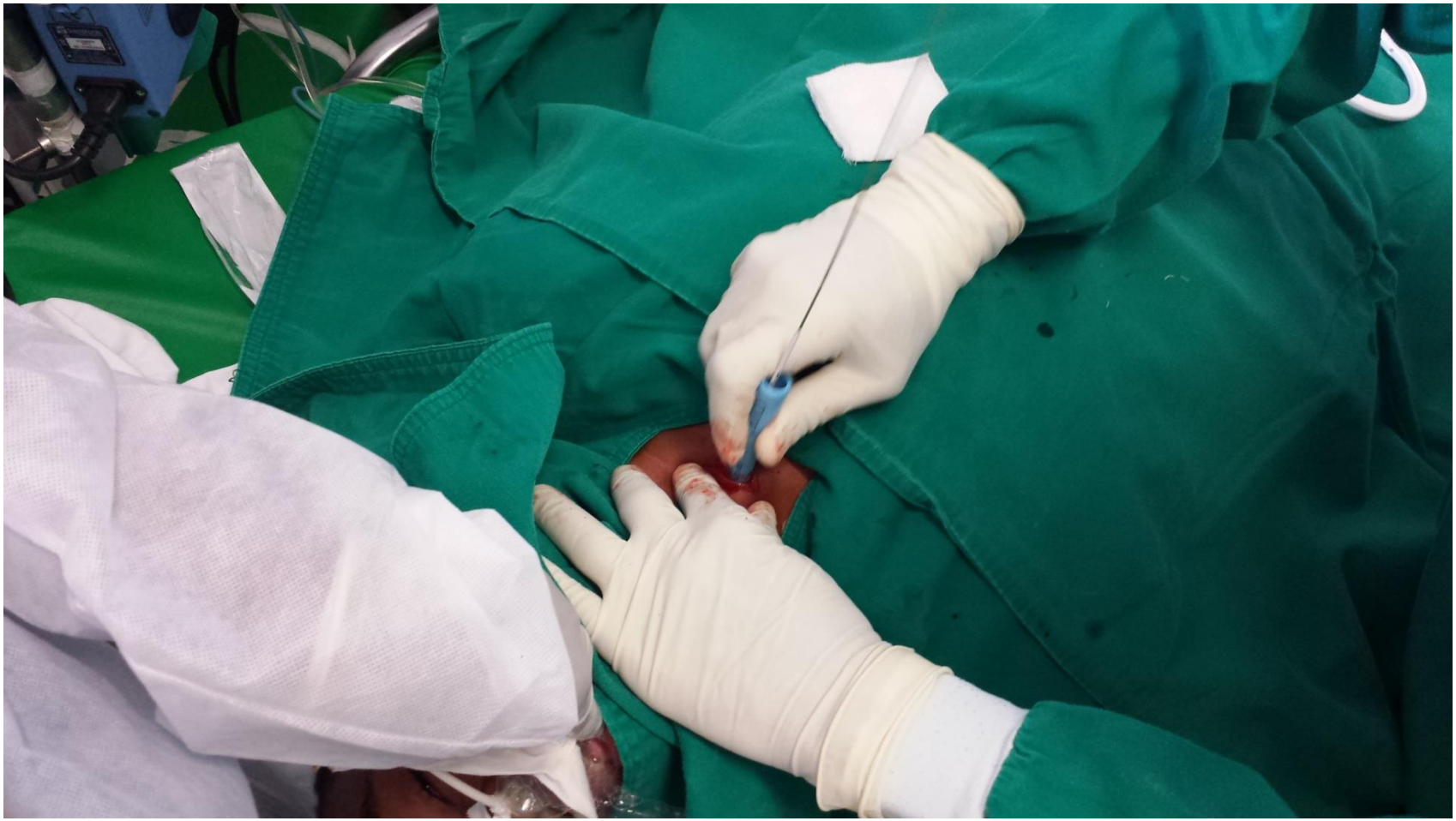
# Ciaglia’s technique - dilatation



# Ciaglia's technique – blue-rhino Dilatator



# Ciaglia's technique – blue-rhino Dilatator



# Ciaglia's technique – introduction of tracheal tube

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# Ciaglia's technique – extubation

# Ciaglia's technique – fixation (stitches)

# Our Study

- 104 patients underwent PCT ;
- 2012-2014;
- Mean age 53;
- Follow-up 1 y

# Our Results

- Indications for PCT:
- 79% weaning failures;
- 21% airway protection.

# Our Results

- Reasons for ICU admission:
- Pneumonia 24%;
- Sepsis 18%;
- Drug intoxication 7%.

# Our Results

- Mean duration of MV – 9 days;
- Mean length of ICU stay – 14 days.

# Our Results

- No deaths related  to the PCT;
- One complication – tracheal stenosis;
- No hemorrhage.

# Our Results

- 63% mortality:
- shock 38%;
- multiple organ dysfunction syndrome 29%;
- acute respiratory distress syndrome 14%;

# Our Results

- Survival and discharge 36.5% (38 patients);
- 37 patients decannulated;
- 100% weaning from MV.

# Discussion
# PCT

- 60% of the tracheostomies;
- Low mortality and morbidity
- Our study: mortality 0%; morbidity 0.96%

# Discussion
# PCT

- In our series:
- no hemorrhage;
- no displacement of tracheal tube;
- 100% weaning from MV.

# Percutaneous Tracheostomy

- Safe
- Pratical
- Efficient in weaning from MV.

# My Book
# www.morebooks.de

Forty-six percent of patients admitted to the intensive care unit (ICU) require mechanical ventilation (MV) to support and maintain life; however, MV is associated with significant rates of morbidity and mortality, both directly proportional to MV duration and failure to successfully terminate MV (weaning). Despite the large number of studies on weaning, there continues to be a high frequency of failure when weaning off of MV, on average 30%, among critically ill patients in the ICU. Considering the high rates of morbidity and mortality related to MV this study was designed with the following objectives: 1 – To assess each stage of weaning in critically ill patients, as established in the medical literature 2 – Based on the empirical data collected and analyzed as well as compared to the medical literature, seek to improve the weaning process 3 – Test the hypothesis that the respiratory frequency (RF), an important variable associated with respiration, can be an effective predictor, by comparing it to the rapid shallow breathing index (RSBI), which is an important predictor of weaning 4 – Finally, to develop a weaning protocol consistent with the results of this study

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## Weaning from Mechanical Ventilation

Respiratory Frequency as a Predictor of Weaning from Mechanical Ventilation

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# Questions