18,572 patients admitted to ICU

1,152 patients received mechanical ventilation >48 h

978 patients included in analysis

100 patients randomly selected derivation cohort
Airway Tube Status: Intubated/Inserted within 72 h of being extubation/extubated
Initial diagnostic performance calculated

100 patients randomly selected validation cohort
Airway Tube Status: Intubated/Inserted within 72 h of being extubation/extubated
Airway Tube Type: Endotracheal tube
Interim diagnostic performance calculated

Final diagnostic performance calculated

Patients excluded:
- 280 patients had no research authorization
- 17,140 patients had no mechanical ventilation or for <48 h
- 174 patients <18 y