**PRIMARY OUTCOME:**

The primary endpoint is a composite of tracheal intubation and all-cause mortality in the first 14 days after enrolment.

**SECONDARY OUTCOMES:**

* Mortality at day 14

• Intubation among survivors at day 24

• Effects on oxygenation defined by the SpO2

• Days under the oxygen support device

• Time to tracheal intubation

• Related complications. The following will be considered complications associated to the prone position:

o Oxygen desaturations (SpO2 <90%)

o Episodes of hemodynamic instability (BPsys < 90mmHg or BPsys drop > 10mmHg if BPsys < 90 before the maneuver)

o Need of orotracheal intubation

o Cardiac arrest

o Displacement of the non-invasive respiratory support device

o Removal of central venous line, if documented

o Displacement of an arterial line, if documented

o Displacement of a urinary catheter, if documented

• Respiratory rate

• Dyspnea defined according to the Borg dyspnea scale (APPENDIX v)

• Duration of invasive mechanical ventilation in those patients who required intubation

• Ventilation-free days (VFD) at 28 days from ICU admission, defined as the number of days alive and free from IMV during the first 28 days from start of IMV

• ICU-free days and hospital-free days at day 90

• Mortality at day 28 and day 90

**DESIGN**

Pragmatic, investigator–initiated, international, multicenter, parallel randomized clinical two–arm trial on acute hypoxemic respiratory failure patients with a respiratory rate of more than 25 breaths per minute, SpO2 < 94% and FiO2 of at least 40% or more by either Venturi facemask, HFNC or NIV/CPAP and, absence of decompensated respiratory acidosis

**POPULATION**

We intend to recruit acute hypoxemic respiratory failure patients with a respiratory rate of more than 25 breaths per minute, SpO2 < 94% and FiO2 of at least 40% or more by either Venturi facemask, HFNC, or NIV/CPAP and, absence of decompensated respiratory acidosis during two years. Currently, we expect about 35 centers to participate in the trial.

Demographic data and clinical characteristics on screened patients, regardless of enrolment criteria match, will be recorded (registry). We will randomize 650 patients admitted to the participating centers' intensive care units and expect each participating center to randomize at least 25 patients who meet all inclusion criteria.

**STUDY TIMELINE**

The total trial duration will be 48 months. The total recruitment period will last for 2 years with a follow-up of 3 months, based on a recruitment rate of 75% for each center. There will be 3 months at the end for final data analysis, reporting and trial close down.

**STUDY START DATE AND REGISTRATION**

The project aims to start in 2021.

We wish to involve medical professionals from 40 ICUs and 650 patients

**PRINCIPAL INVESTIGATOR – CONTACT**

Luis Fernando Morales-Quinteros

Hospital Universitari de Sant Pau, Barcelona, Spain

Institut d’Investigació i Innovació Parc Taulí, Sabadell, Spain luchomq2077@gmail.com

**STEERING COMMITTEE**

Luis Morales-Quinteros, Marcus J Schultz, Ary Serpa-Neto, Massimo Antonelli, Domenico L. Grieco, Oriol Roca, Nicole Juffermans, Lluis Blanch, Candelaria de Haro, Diego de Mendoza, Marta Camprubi-Rimblas, Antonio