

SCREENING			Name	
Subject ID	001	(fill out with 4 additional digits e.g. 0010001)	Date of Birth	
			Orbis ID	
Investigator			Signature	
Age [years]			Gender	male/female
Height [cm]			Weight [kg]	
Admission type*			Type of surgery#	
Date of hospital admission			Date of surgery	
Date of ICU admission			Date of screening	YES/NO
MV since		:	PSV hours:	YES/NO
Inclusion criteria				
Age ≥ 18 years			YES/NO	
Duration of controlled mechanical ventilation >24h			YES/NO	
Availability of Dräger Infinity 500 ventilator (ready to use)			YES/NO	
Informed consent according to local regulations			YES/NO	
Temperature ≤ 39 °C			YES/NO	
Hemoglobin ≥ 6 g/dl (3,72mmol/l)			YES/NO	
PaO <sub>2</sub> /FiO <sub>2</sub> ≥ 150 mmHg with PEEP ≤ 16 cmH <sub>2</sub> O			YES/NO	
Ability to breathe spontaneously			YES/NO	
Exclusion criteria				
Participation in another interventional trial within the last four weeks before enrolment in this trial			YES/NO	
Peripheral neurological disease associated with impairment of the respiratory pump			YES/NO	
Muscular disease associated with impairment of the respiratory pump			YES/NO	
Unstable thorax with paradoxical chest wall movement			YES/NO	
Planned surgery within 72 hours under general anaesthesia			YES/NO	
Difficult airway/intubation			YES/NO	
Existing tracheotomy at ICU admission			YES/NO	
Expected survival < 72 hours			YES/NO	
Home mechanical ventilation or on chronic oxygen therapy			YES/NO	
Suspected pregnancy			YES/NO	
Apache Score II Score				
T [°C]		PaO <sub>2</sub> [kPa]		HKT
MAP [mmHg]		PaCO <sub>2</sub> [kPa]		WBC [total/μL]
HR [bpm]		pH		GCS- eye
RR [bpm]		Na [mmol/L]		GCS-verbal
FiO <sub>2</sub> [%]		K [mmol/L]		GCS-motor
		Crea [μmol/L]		
SOFA Score				
P/F-ratio [mmHg]		MAP [mmHg]		Dobutrex [γ]
PLT [total/μL]		Crea [μmol/L]		Arterenol [γ]
Bili [μmol/L]		GCS		Adrenalin [γ]
Chronic conditions?				
Heart	YES/NO	Respiratory	YES/NO	Renal
				YES/NO

Pre-Inclusion Test (PIT)						
Subject ID	001 _____					
Investigator						
Signature						
	Before PIT	After PIT	Before PIT	After PIT	Before PIT	After PIT
Date						
Time						
Mode**						
MV [L/min]						
RR [bpm]						
Ppeak [cmH <sub>2</sub> O]						
Pmean [cmH <sub>2</sub> O]						
PSV level [cmH <sub>2</sub> O]						
Variability level [%]						
PEEP [cmH <sub>2</sub> O]						
FiO <sub>2</sub>						
PaO <sub>2</sub> [kPa]						
PaCO <sub>2</sub> [kPa]						
pH						
T ≤ 39 °C		YES/NO	-	YES/NO	-	YES/NO
P/F Ratio ≥ 150 mmHg		YES/NO	-	YES/NO	-	YES/NO
PEEP ≤ 16 cmH <sub>2</sub> O		YES/NO	-	YES/NO	-	YES/NO
pH ≥ 7.30		YES/NO	-	YES/NO	-	YES/NO
RR ≤ 40/min		YES/NO	-	YES/NO	-	YES/NO
HR 40-130/min		YES/NO	-	YES/NO	-	YES/NO
SAP 80-160 mmHg		YES/NO	-	YES/NO	-	YES/NO
Max. 0.1 µg nora, and/or adrenalin, 2 µg dopamine and/or dobutamine		YES/NO		YES/NO		YES/NO
No arrhythmias?		YES/NO		YES/NO		YES/NO
<b>PIT passed?</b>		<b>YES/NO</b>		<b>YES/NO</b>		<b>YES/NO</b>
<b>Randomization</b>		<b>YES/NO</b>		<b>Result:</b>	<input type="checkbox"/> conventional PSV	
					<input type="checkbox"/> noisy PSV	

**Perform the PREINCLUSION TEST**

Ventilate the patient for 1 hour in PSV Mode according to the following settings:

- targeted mean VT = 6-8 ml/kg
- Pressure support variability = 0%
- Maximal peak pressure = 40 cmH<sub>2</sub>O
- Flow trigger = 2 l/min
- Inspiratory cycling-off = 25% of peak flow
- PEEP and FIO<sub>2</sub> for SaO<sub>2</sub> ≥ 92%, whereby PEEP ≥ 5 cmH<sub>2</sub>O

If the patient shows signs of hemodynamic or respiratory distress (see next page), the test will be stopped ahead of time. If the patient fails the pre-inclusion test, mechanical ventilation is conducted according to local clinical practice. The pre-inclusion test is repeated as early as possible at discretion of the treating physician.

**RANDOMIZATION** at: <https://macro.medizin.tu-dresden.de>