One ventilator for two patients: feasibility and considerations of a last resort solution in case of equipment shortage

Tommaso Tonetti1*, Alberto Zanella2,3*, Giacinto Pizzilli1, Charlene Babcock Irvin4, Stefano Nava5§, Antonio Pesenti2,3§ and V. Marco Ranieri1§

Supplementary material

Circuit composition:

• 2 HME filters on the expiratory branch after the T connector.
  
  Antimicrobial filter for machine protection.

  Junctions: 22F - 22M/15F.

  Flow resistance at 60 L/min: 3 cmH₂O

• 2 HME filters (one before each patient).
  
  Antimicrobial filter for patient humidification and protection.

  Junctions: 22F / 15M - 22M/15F.

  Flow resistance at 60 L/min: 3 cmH₂O

• 2 T rigid connector (one for the inspiratory and one for expiratory port of ventilator).
  
  Junctions: 22M - 22F - 22M

  (Alternatively: 2 T connectors 22M - 22M - 22M plus two 22F - 22F adaptors)

• Respiratory circuit 1,8mt
  
  Adult circuit for ventilation and anesthesia.

  Junctions: 22M/15F on patient’s side; 22F on ventilator’s side.