

A Novel Inhalation Mask System to Deliver High Concentrations of Nitric Oxide Gas in Spontaneously Breathing Subjects

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Materials

Name	Company	Catalog Number	Comments
90° ventilator elbow connector without ports 22 mm ID x 22 mm OD	Teleflex, Wayne, PA, USA	1641	
Aerosol tee connector: horizontal ports 22 mm OD, vertical port 11 mm ID/22 mm OD	Teleflex, Wayne, PA, USA	1077	
Flexible patient connector for endotracheal or tracheostomy tube (15 mm OD x 22 mm OD/15 mm ID, length 5 cm to 6.5 cm)	Vyaire Medical Inc., Mettawa, IL, USA	3215	
High-efficiency particulate air (highly hydrophobic bacterial/viral filter, HEPA class 13) filter (22 mm ID/15 mm OD x 22 mm OD/15 mm ID connector)	Teleflex, Wayne, PA, USA	28012	
Latex-free 3-L breathing reservoir bag	CareFusion, Yorba Linda, CA, USA	5063NL	
Nitric Oxide tank 800 ppm medical-grade (size AQ aluminum cylinders containing 2239 L at STP of 800 ppm NO gas balanced with nitrogen, volume 2197 L)	Praxair, Bethlehem PA, USA	MM NO800NI-AQ	
One-way valve 22 mm male/female (arrow pointing towards female end)	Teleflex, Wayne, PA, USA	1664	N=2 inspiratory limb (upward arrow)
One-way valve 22 mm male/female (arrow pointing towards male end)	Teleflex, Wayne, PA, USA	1665	N=1 expiratory limb (downward arrow)
Rad-57 Handheld Pulse Oximeter with Rainbow SET Technology	Masimo Corporation, Irvine, CA, USA	3736	Including SpMet Option
Scavenger (ID = 60 mm, internal length = 53 mm, volume = 150	Spherasorb, Intersurgical Ltd, Berkshire, UK		

mL) containing 100 g of calcium hydroxide			
Silicon rubber flexible connectors 22 mm F x 22 mm F	Tri-anim Health Services, Dublin, OH, USA	301-9000	
Snug-fit standard face mask of appropriate size			
Star Lumen standard medical grade vinyl oxygen tubing with universal connectors	Teleflex, Morrisville, NC, USA	1115	Variable length according to distance from source of gas. 2.1 m length used in protocol
Straight connector with a 7.6 mm sampling port (15 mm OD x 15 mm ID/22 mm OD)	Mallinckrodt, Bedminster, NJ, USA	502041	
Two-step adapter (15 mm to 22 mm)	Airlife Auburndale, FL, USA	1824	
Y-piece connector with 7.6 mm ports (22 mm to 22 mm and 15 F)	Vyair Medical Inc., Mettawa, IL, USA	1831	