



No Disinfection*

Mitigate your risk of M.chimaera.

ND

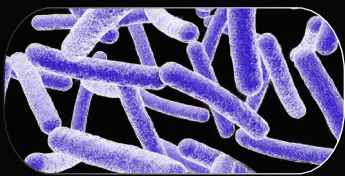
Benefits of ND Technology:

State of the art technology, a disposable water circuit with dripless connectors:

- Removes water from the Quest MPS System used to thermoregulate your patient's cardioplegia circuit
- Mitigate risk of M. chimaera aerosolization

Cost and resources utilized in disinfection process are eliminated

- Save **\$7,000/unit** in average annual Disinfection Costs³



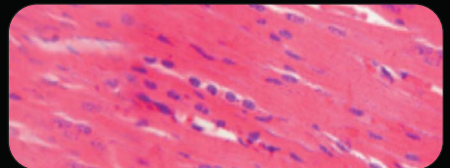
M. chimaera- A slow growing bacterium, part of a group called non-tuberculous Mycobacterium bacteria (NTM) commonly found in water.

Precision drug delivery WITHOUT dilution¹

Positive Benefits of Microplegia

Provides superior myocardial protection with natural distribution

- Maximizes aerobic environment for the myocardium
- Reduction of hemodilution
- Lowers blood product transfusion rates
- Minimizes use of hemoconcentrator
- Reduces inotropes



Myocardium²

* The Quest MPS3 ND System eliminates the need for disinfecting the internal water circuit. With the Quest MPS3 ND System only exterior surfaces of the device need disinfection. Refer to the Quest MPS3 ND operations manual for exterior surface disinfection instructions.

QUEST MPS[®] 3 MD

Smarter Myocardial Protection™

Compliant with any protocol

- ANY Ratio
- ANY Strategy
- ANY Methodology
- ANY TIME

Auto Start

Evolved technology for smarter myocardial protection. A one-touch button allows for a fast aortic valve closure, commanding a rapid arrest, while maximizing cardioplegia distribution.

Power through Precision

Know the precise drug concentrations, in real time. Accurately adjust the controls during the case.

Real Time Data Collection

The ability to collect and review data and analytics. Giving you the information you want, when you want it.

Reduced Costs⁴

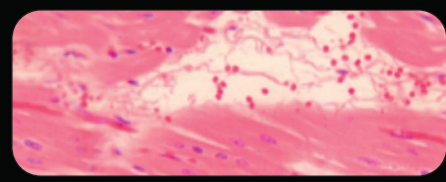
- Eliminate the purchasing of compound cardioplegia
- The MPS Technology improves patient outcomes resulting in reduced hospital

DILUTED cardioplegia¹

Negative effects of excessive dilution

Traditional 4:1 (Blood:Crystalloid)

- Tissue Edema
- Lowers hematocrit
- Increased blood product transfusions rates
- Increased Potassium levels
- Elevated glucose levels
- Low output cardiac syndrome
- Increased Inotropic use



Interstitial Edema²

QUEST MPS® 3 ND

Smarter Myocardial Protection™

**“Quest MPS® Technology makes
a good perfusionist great.”**

-Alan Dubey, University of Massachusetts Medical Center

Setup a free demonstration of the Quest MPS 3 ND System
by calling customer service at **1.800.627.0226**
or visiting **QuestMPS3.com**

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¹ Bharat Datt, CCP, et al. Blood Only Cardioplegia with Quest MPS. Canadian Perfusion Canadienne 2009; 19(1) April: 31-37

² Ulysses G McCann, et al. Whole Blood Cardioplegia (Minicardioplegia) Reduces Myocardial Edema After Ischemic Injury and Cardiopulmonary Bypass. J Extra Corpor Technol 2006 Mar;38(1):14-21.

³ Disinfecting Cost, Data on File

⁴ Marc W Gerdisch, et al. Clinical and economic benefits of advanced microplegia delivery system in cardiac surgery: evidence from 250 hospitals. Journal of Comparative Effectiveness Research 2018; April: 673-683