



**Making the critical  
uncomplicated**

°M Warmer System – instant, intuitive and portable blood and IV fluid warming

**°MEQU**

## Keeping patients normothermic is essential

Maintaining normothermic temperature of patients is often a struggle. Accidental hypothermia can potentially increase complications and prolong hospital stays<sup>1</sup>.

One of the contributing factors of accidental hypothermia is the infusion of cold blood and IV fluids. In one study, the infusion of one liter of ambient temperature saline in an adult, reduced body temperature by 0.4 degrees compared to the infusion of normothermic fluid<sup>2</sup>. The infusion of normothermic blood and fluids can therefore help reduce accidental hypothermia.

*The °M Warmer System is a revolutionary system enabling fast, easy and efficient delivery of warm blood and IV fluids to the patient.*



## Challenges with current blood & IV fluid warmers

Current solutions do not always live up to the needs in a busy environment. Some of the challenges you may experience today are:

- Cumbersome and long set-up times resulting in risk of errors and delays before warm IV fluids can be given to the patient.
- Large priming volume potentially resulting in valuable blood being wasted.
- Long warm-up time resulting in potentially large volumes of cold IV fluids being infused.
- Taking up space in an already crowded area and not easily moved around.
- Need for regular maintenance adding cost.
- Cleaning procedures to reduce the risk of cross contamination.

# A new standard for blood and IV fluid warming

°MEQU has developed a revolutionary solution for blood and IV fluid infusions.

## Unmatched ease of use

Setting up the °M Warmer System is extremely intuitive and takes less than 30 seconds – in fact, nothing can be assembled incorrectly preventing any connection errors in a stressful situation.

## Fast and extremely efficient

Using a patented warming technology, the °M Warmer is able to warm IV fluids, including blood, from cold to body temperature in less than 10 seconds. And the extremely efficient technology enables the system to deliver a high constant normothermic flow up to 150 ml/min.

## Warming close to the infusion site

The °M Warmer is equipped with a unique adhesive fixation solution for securing the warmer close to the infusion site. The proximity of the actual warming to the infusion site virtually eliminates heat loss. Also, the fixation drastically reduces the risk of compromising the IV-access.

## Small, compact and mobile

The °M Warmer is the smallest and most compact warming system on the market. It takes up very little space in the crowded treatment area and it is easy to move with the patient when needed.

## Virtually no priming volume

The compact design of the °M Warmer means, that the priming volume is only 3.5 ml so no valuable blood or fluids is wasted.

## Easy cleaning and no maintenance

The ingenious design of the °M Warmer System means that it requires no maintenance, and the design with smooth surfaces ensures easy cleaning

*The °M Warmer System allows the user to quickly and safely administer warm blood or other IV fluids to the patient whenever needed – in a hectic trauma situation or as part of routine surgery.*



## One warmer - multiple ways to power it

No matter where there is a need for blood and IV fluid warming, the °M Warmer System offers a solution.

### °M Station

AC power for unlimited volumes of IV fluids in ER, trauma center, OR, ICU, recovery wards as well as during ground transportation ensuring a continuous flow of warm IV fluids as long as it is needed.

### Power Pack/Power Pack+

Portable and light weight rechargeable power supply for infusions at the scene of an accident or during transport to a hospital as well as transport inside the hospital

*Both solutions offers ease of use – nothing can be connected in the wrong way – and the transition between power options is seamless.*



°M Station  
AC power supply



Power Pack / Power Pack+  
Rechargeable power supply





### **In-hospital transportations**

During the transport of patients around the hospital, e.g. from the trauma center to CT scanner, OR or ICU, infusion of warm blood and IV fluids is still a priority but can be difficult with the current systems. The °M Warmer System can easily go with the patient anywhere in the hospital enabling a continuous flow of warm IV fluids during transportation.

### **Inter-hospital transportations**

Large volumes of warm blood and IV fluids are often needed when transporting patients from one hospital to another. The °M Warmer System is very well suited for this. °M Station and °M Warmer together provide a continuous flow during the entire journey.

*Depending on the need, the combination of the portable Power Pack and the °M Station ensures that a continuous flow of warm IV fluids can be administered during the transportation of the patient.*

## **Ideal for transport outside and inside the hospital**

Patients need to be transported both from the site of injury, within the hospital and between hospitals. The °M Warmer System is designed to be used in all of these situations.

### **From the point of injury to the point of treatment**

Size, weight, reliability, robustness and ease of use are some of the most important features needed for a blood and IV fluid warming device in a hostile environment. The Power Pack and °M Warmer fulfills all the requirements, and it only takes 30 seconds to set up at the point of injury.

When transporting the patient to the hospital, the °M Warmer System offers different options. For air transport, the Power Pack / Power Pack+ and °M Warmer are ideal with its small size and weight, and when ground transportation is used, the addition of the °M Station offers an unlimited volume of warm IV fluids.

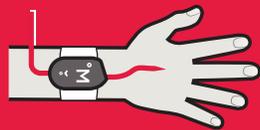


# Making the critical *Patient Journey* less complicated

The °M Warmer System is designed to be used for the entire patient journey using the same intuitive, easy to use and efficient °M Warmer.

This means that every patient can receive warm blood and IV fluids no matter where they are located – at the point of injury, during transport, and in the hospital.

Whether the Power Pack or the °M Station is used for powering the °M Warmer, the transition between them is seamless, so there is no interruption of the delivery of warm blood or IV fluids to the patient.



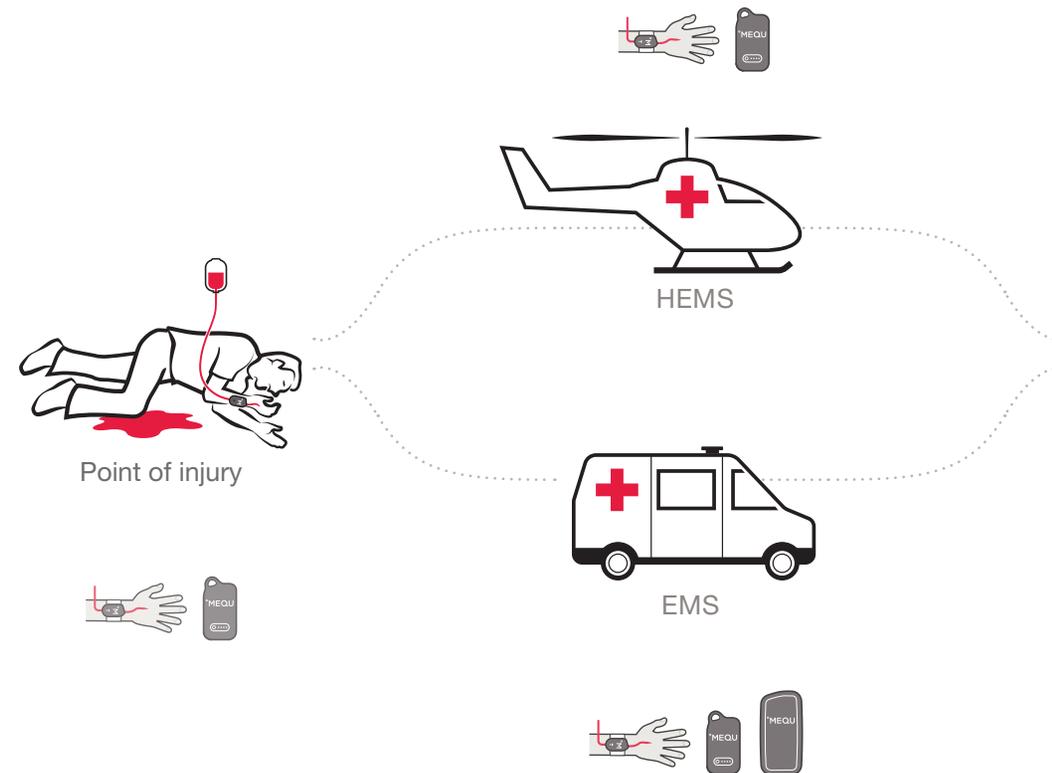
°M Warmer

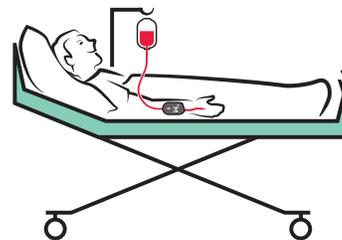
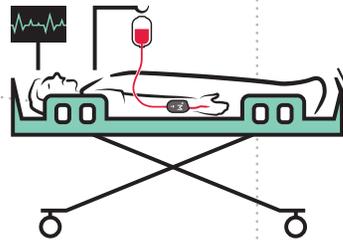
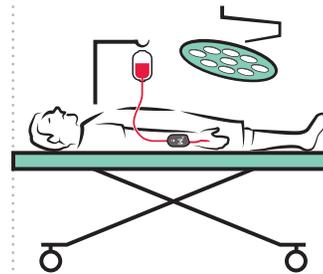
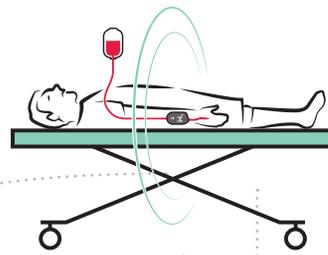
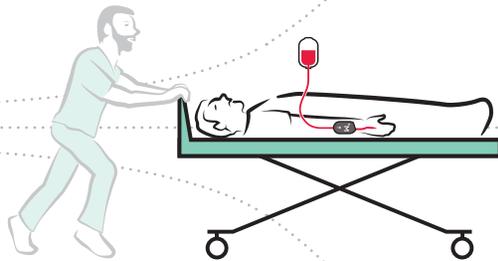
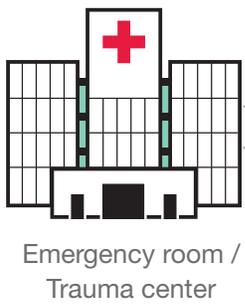


Power Pack /  
Power Pack+  
(rechargeable)



°M Station  
(AC)





## About °MEQU

Following a request from the Danish Defense to the Technical University of Denmark, Ulrik Krogh Andersen took on the challenge to develop an effective and portable blood and IV fluid warmer. Shortly afterwards, Ulrik founded °MEQU and since then he and the °MEQU team have made it their mission to make it possible to provide warm blood and IV fluids to any patient regardless of where the need arises.



## Passion and perseverance

From the initial university project to retraining as paramedic and working the busy streets of NYC, Ulrik and the °MEQU team spent several years of true perseverance – of inventing, understanding, testing, failing, redesigning and testing again – to create the °M Warmer System.

°MEQU continues to work in close collaboration with medical experts – military as well as civilian – to ensure that our solutions meet the requirements of both patients and medical professionals.

### °M WARMER FACTS

- Easy to use – Impossible to assemble the system incorrectly
- Rapid set-up time – Takes less than 30 seconds
- Fast warm-up time – less than 10 seconds
- High flow rate – Maintains body temperature fluid at flow rates up to 150ml/min
- Adhesive fixation solution reduces the risk of compromising IV access
- Multiple power options – Power packs (rechargeable power) and °M Station (AC power)
- Easy to clean and no maintenance
- Robust and sturdy

<sup>1</sup> Sessler, Daniel I. MD: Mild Perioperative Hypothermia. New England Journal of Medicine. 336 (24):1730 -1737, June 1997

<sup>2</sup> A randomised single blinded study of the administration of pre-warmed fluid vs active fluid warming on the incidence of peri-operative hypothermia in short surgical procedures, JC Andrzejewski et al. Anaesthesia, Volume 65, Issue 9, September 2010, Pages 942-945.



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