



Chronic Pain & Palliative  
Care Management  
Rythmic™ Evolution & MP mlh+

Freedom without clinical compromise

 micrel



As home care becomes an increasingly vital step in a patient's care journey, chronic and palliative pain care is evolving, and this is driving the need for more versatile infusion solutions to manage patients. This ensures improved patient experience while enabling Health Care Professional (HCPs) to deliver optimal patient care without compromise.

As a company that specialises in developing advanced technology infusion devices, we are working with HCPs to meet the challenges of chronic and palliative pain management – designing and developing devices that enable delivery of improved patient care.

" I value their staff, they are very professional, enthusiastic about their company. They like what they do and they think about the patient needs."

2018 Customer Perception Survey





# Challenges within chronic & palliative pain care

## **Increasing demand**

Hospitals and healthcare facilities are under ever growing demand, putting great strain on HCPs to provide pain relief for patients safely and efficiently. Palliative care in hospital environments, especially, is often sub-optimal, leaving patients and family complaining of inadequate pain relief.<sup>1,2</sup>

## **Seeking greater mobility**

Infusion carried out through static equipment with a pole restricts patients' movement. Maintaining mobility is physically and mentally very important for chronic patients who want to get on with life.

## **Home care concerns**

It is ideal for palliative patients to be at home, not only because patients are more comfortable physically and mentally but also because evidence suggests home care is preferential with regards to quality of life and total costs of care.<sup>3</sup> However, it can be challenging to provide home care as safely and efficiently as hospital care.



# Optimal pain management

Rythmic™ Evolution is an ambulatory infusion pump designed to meet the safety, reliability and comfort that HCPs and patients expect.

It offers a step change in managing chronic and palliative pain with a host of innovative features, accessories and delivery systems:

## **Intuitive programming**

Set up is simple and all sets contain pre-assembled components, avoiding additional connections.

## **Interactive Pain Scores**

Patients can record their pain scores on the pump, which can be linked to bolus demands.

## **Comprehensive ambulatory portfolio**

A complete range of accessories and alternative carrying solutions to meet the patient and facility needs.

## **Built-in medication error prevention**

The therapy-based protocol library allows titration of the selected infusion protocol, staying within pre-programmed safety limits.

## **Effective alarm management**

A needless alarm can cause undue worry. But with an air elimination filter, the Rythmic™ Evolution is designed to reduce nuisance alarms without compromise.

## **Misconnection prevention with NRfit™**

We have developed our own NRfit™ connector component, compliant to the ISO 80369-6:2016, applied to our perineural yellow infusion set range.



# Monitor patients anytime, anywhere

MicrelCare is our web-based care management platform. It gives a view of patients' infusion status with automatically updated data sent wirelessly, so that HCPs can make truly informed decisions about how to progress.



#### **GPRS**

Wireless and mobile, automatically updated 24/7



#### **Alerts**

Clinical and device alerts via SMS and email



#### **Patient pain evolution**

Quicker response to patient needs



#### **Infusion monitoring**

Track volumes infused vs. remaining



#### **Healthcare Network**

Individual access to patient treatments from different HCPs



#### **Bolus monitoring and trends**

Track bolus requested vs. delivered and visualize potential pain patterns



#### **Patient History**

Compare infusions against patient history



#### **Easy Reporting**

Quickly retrieve all-cohort data

#### **SMS and email alerts**

SMS or email alerts notify of events that HCPs might need to react to. This gives remote access to the knowledge needed to help give a patient excellent pain relief safely. All data is hosted as an independent unit in a highly secure, ISO/IEC 27001 certified data centre, ensuring data is stored and transferred at the highest level of protection available.



# Getting on with life

For chronic pain patients, the Rythmic™ Evolution range enables mobility in a variety of ways:

## Ultra-portable

Rythmic™ Evolution is small, lightweight and highly portable. Therefore it's discrete, offering patient satisfaction and enabling greater mobility

## Extended battery life

6 days at 5ml/hr\*, which helps keep patients mobile for longer.

## Variety of carrying solutions

Complete range of carrier styles and sizes from 100-200ml, including shoulder and belt bag, and banana bag.

\* Based on a continuous delivery mode and indicative of battery life, depending on temperature conditions, infusion rate, battery brand and backlight.



We also offer a range dedicated to peripheral nerve block and intrathecal access routes and treatments, covering all chronic pain needs.

# Enabling home care for palliative patients

Rythmic™ Evolution provides everything that HCPs need to be able to offer a high standard of care to palliative patients from the dignity of their own home.

## **Home care benefits patients**

At home palliative care can improve patient satisfaction, ease symptoms and boost quality of life, and require less healthcare resources.<sup>4</sup>

## **Home care is efficient and cost-effective**

Studies show that home care has a positive impact on the quality of care, and even brings cost savings in comparison to hospital care, for end-of-life patients.<sup>3</sup>





# Meeting the needs of HCPs and patients

## Interactive pain scores

Rythmic™ Evolution gives patients more control over their pain than traditional pain management, as patients are able to record their numerical pain score or request a bolus at any time. This information is instantly transmitted to MicrelCare, so that HCPs can act quickly and easily.

## Reassurance on both sides

While patients are empowered over their pain, they have the comfort of knowing a HCP is monitoring their treatment through MicrelCare.

## Simultaneously, HCPs have the reassurance of remotely monitoring infusion related data:

- Pump programming
- Patient bolus activity
- Total volume being infused
- Pain score level and trend

## Monitor opioid use

MicrelCare gives indication of opioid consumption and related pain levels, leading to informed decisions regarding the continuity of the treatment.



## The portable syringe pump:

### Designed for simplicity and freedom

The MP mlh+ is a simpler option for infusion needs. It's easy to maintain with a robust design, a trouble-free set up and accurate delivery – therefore it's ideal for in-the-community care.

- Simple ml/hr set up
- Long battery life
- Event log
- Syringe brand and size selection
- Long service interval

# Go forward with confidence

Every aspect of the Rythmic™ Evolution has been considered to ensure that it is designed with both patients and healthcare professionals like you in mind, and is a truly user-friendly infusion pump. We also offer support with implementation and online training to help users get the most out of their new device.

Our online training is available in multiple languages and it covers a number of therapies. The online support videos demonstrate how to use the devices in detail. It's an efficient way to supplement ongoing training of healthcare providers and support patients.



[micrelmed-elearning.com](http://micrelmed-elearning.com)

## Advanced technical support

 <p><b>Repair per case</b> A technical service offered as standard and you pay per case</p>	<p><b>3 years*</b></p> <p><b>Preventative maintenance</b> Benefiting the hospital biomed and your budget</p>	 <p><b>Device-specific training</b> Enabling biomedical engineers to undertake repairs in-house</p>	 <p><b>Technical support helpline</b> We're on-hand to help when needed</p>	 <p><b>Warranty extension</b> The ability to extend your warranty, for additional peace of mind</p>
--	--	--	--	--

\*3 years or 1000 days of operation, whichever comes first

## Customer satisfaction

European customers reported being very satisfied with our performance:

- ✓ **Easy to work with**
- ✓ **Implementation management & support**
- ✓ **Knowledgeable sales teams**



Micrel customer perception survey. May 31 2018

1. Al-Qurainy R, Collis E, Feuer D. Dying in an Acute Hospital Setting: The Challenges and Solutions. International Journal of Clinical Practice. 2009;63(3):508-515. 2. Cotogni P, Saini A, De Luca A. In-Hospital Palliative Care: Should We Need to Reconsider What Role Hospitals Should Have in Patients with End-Stage Disease or Advanced Cancer? Journal of Clinical Medicine. 2018;7(18) Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5852434/>. [Accessed 13th March 2019] 3. Maetens A et al. Impact of Palliative Home Care Support on the Quality and Costs of Care at the End of Life: a Population-level Matched Cohort Study. BMJ Open. 2019. Available from: <https://bmjopen.bmj.com/content/bmjopen/9/1/e025180.full.pdf>. [Accessed 13th March 2019] 4. Rabow M et al. Moving Upstream: a Review of the Evidence of the Impact of Outpatient Palliative Care. Journal of Palliative Medicine. 2013;16(12): 1540-1549.



96079 Rev.2-Rel.Date: 2019.12.12

## Discover a patient-centred solution

To find out more about Rythmic™ Evolution & MP mlh+ go to [micrelmed.com](http://micrelmed.com)

