PHILIPS
MR Patient Care
Expression
MR400
Ready for
what's next

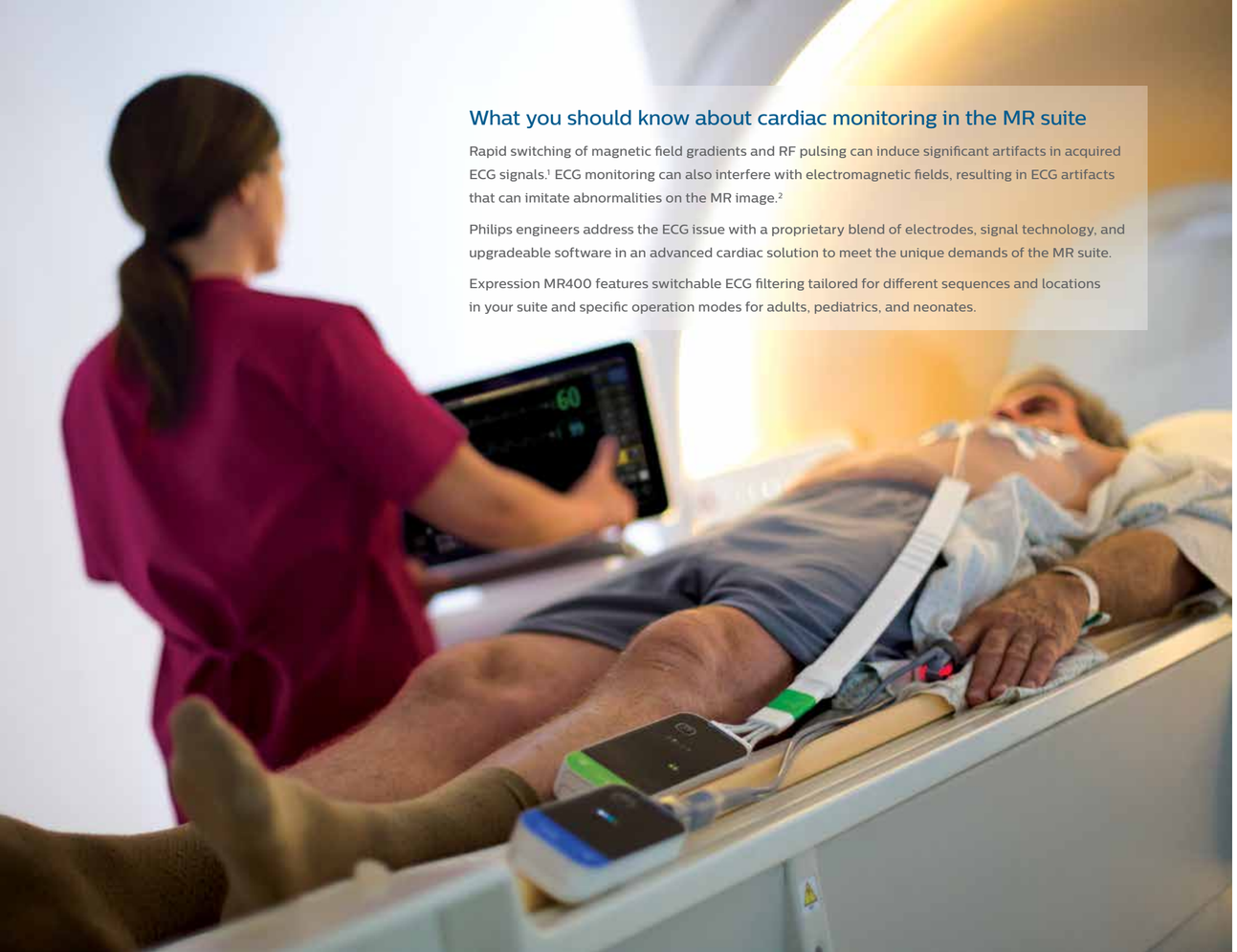
It's a new day

Healthcare is changing. You're asking more of your MR staff—because you have to—and now you can ask more of your MR patient monitoring, too.

Expression MR400 helps you do what's best for your patients in the face of evolving care models by elevating your monitoring capabilities from MR-level to bedside-level.

Create the kind of experiences for patients and staff that help drive market preference for your services while you capture the clinical and economic opportunities required for competitive success into the future.

Expression MR400 is our most advanced system ever for MR patient monitoring. It's the natural solution for those who ask, "What's next?"



What you should know about cardiac monitoring in the MR suite

Rapid switching of magnetic field gradients and RF pulsing can induce significant artifacts in acquired ECG signals.[1] ECG monitoring can also interfere with electromagnetic fields, resulting in ECG artifacts that can imitate abnormalities on the MR image.[2]

Philips engineers address the ECG issue with a proprietary blend of electrodes, signal technology, and upgradeable software in an advanced cardiac solution to meet the unique demands of the MR suite.

Expression MR400 features switchable ECG filtering tailored for different sequences and locations in your suite and specific operation modes for adults, pediatrics, and neonates.

What's next?

The growing value of MRI as a diagnostic tool means elements of the ICU and OR are increasingly making their way to the MR suite.

Ask your MR monitoring partner, "What are you doing to help increase commonality among patient monitoring systems across departments, and making it easier to connect with hospital IT systems?"

Bedside thinking comes to MR

In a perfect world there would be no difference between MR and bedside patient monitors.

Expression MR400 takes a bold step toward that ideal so that you can manage your MR patients with a high level of decision-making confidence.

Bedside-quality parameters with timesaving snap-and-go connections come to MR monitoring of SpO_2, IBP, NIBP, and CO_2 (SINC).

Philips-designed 15" LED widescreen combines vital signs at high resolution with the familiarity of a bedside interface.

Alarm "flags" redefine pre-emptive intelligence with a unique multi-priority system for technical and clinical alarming, including bedside-type warnings for desaturation, apnea and extreme brady/tachycardia. One-touch calculation lets you tailor alarms by individual patient.

An exclusive combination of ECG advances from the patient to the waveform puts you further ahead in providing care in the MR suite.

Spend less time charting, more time with patients. Streamline admission and discharge with automated case management, wireless barcode scanning, and easy connectivity with your hospital IT systems.*

*Option via Expression Information Portal

What's next?

For a host of reasons, patients and their families are becoming more invested in their care choices.

Ask your MR monitoring partner, "How can you help me create preference for my site's MR services among these new decision-makers?"

Make the most
of the MR experience

Choose a monitor that can take you where you want to go.

Expression MR400 provides a comprehensive approach to MR patient monitoring that empowers you through flexibility in exam protocols, freedom of movement, and automated intelligence to support you by turning raw information into actionable knowledge.

4 W/kg SAR | **7.2** µT $B1_{rms}$ | **5,000** Gauss | **3.0** T

Improve patient care and workflow with the flexibility to monitor patients even when optimizing protocols up to 4W/kg SAR and 7.2µT $B1_{rms}$. Create a comfortable working environment by reducing restrictions that normally accompany monitor placement relative to the patient and magnet.

The comprehensive Expression patient care solution is designed for simplified workflow, patient comfort, and less cable clutter. With one wireless connection to the patient you can share information from transport to monitoring, cardiac gating, and electronic patient record systems.

Accessories that fit properly can make all the difference in creating a pleasant experience—and optimal results—for both patients and staff.

Instrument flight rules

Some clinicians have compared the experience of monitoring anesthetized patients in the MR suite to flying in the darkness: in both cases you have to trust your instruments because visibility is limited.

Empowering you with capabilities commonly found in OR monitors can help you fly with more confidence.

It's why we created the Expression MR400 to provide you with automatic identification of dual anesthetic agents, monitoring of body and surface temperatures, MAC values, trends, and perfusion index.

Trends in MR procedures

New care models are signaling reductions in MR imaging volume, with sicker patients and more time-consuming sedation exams.

How are we helping you meet this challenge? One monitor lets you use precious assets fully by monitoring patients across your range of procedures, from neonate and pediatric to critical care, cardiac, the elderly, and those requiring anesthesia.

What's next?

Population management models may present opportunities to reduce hospital stays for sites that can perform new types of MR procedures.

Ask your MR monitoring partner, "How can you help me elevate the performance of my MR suite to take advantage of new procedures as they evolve?"

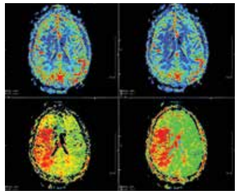
New opportunities bring **new rewards**

Perform the complex procedures that potentially get your patients home sooner.

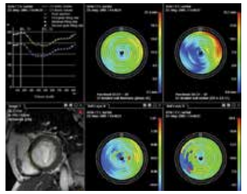
Expression MR400 can put you in touch with the new clinical and economic opportunities of value-based care as MR plays an increasingly important role in the larger patient care continuum. Entirely new hardware and upgradeable software platforms are designed to keep you at the forefront over time.

"How much sooner do I have the ability to treat a patient and get them back home?"

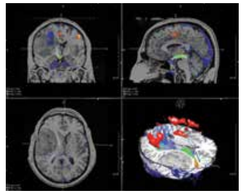
Administrative Director, Radiology
Academic hospital, Eastern U.S.



High-quality monitoring of anesthetic agents and body temperature over long time periods is crucial to conducting intra-operative MR procedures.



Advanced cardiac architecture provides the ECG signal and wireless gating capabilities necessary for confident monitoring during more complex procedures, especially with seniors.



Obtaining readings while the monitor is close to the magnet and patient is critical for successful functional MR procedures requiring patient command activities.

These images were created using an MR system.

What's next?

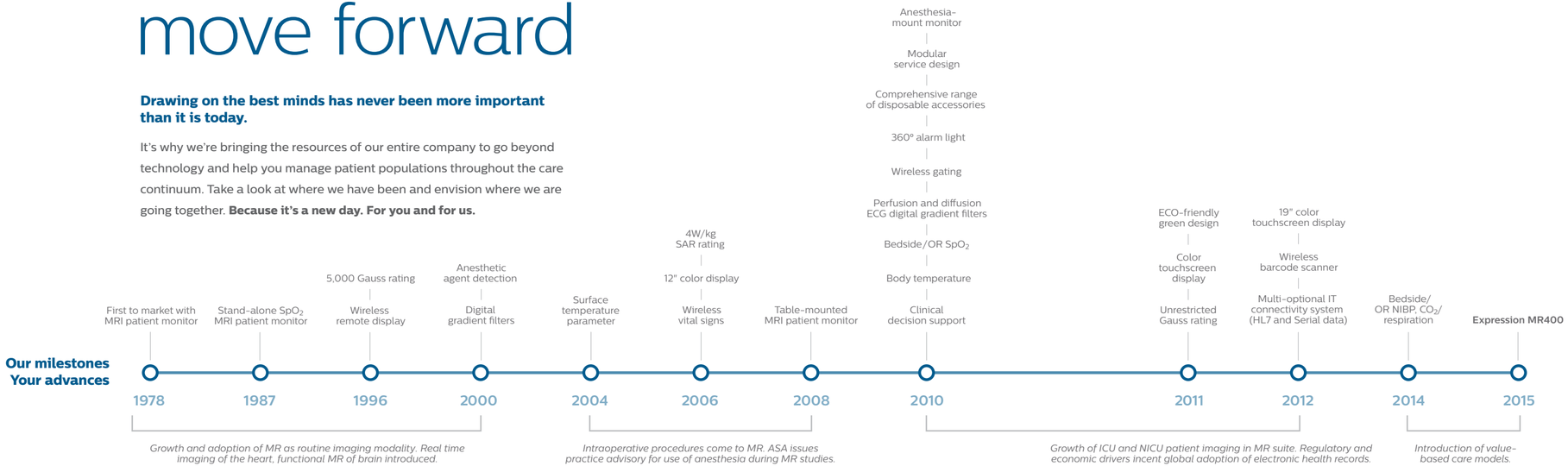
New care models are redefining relationships between healthcare providers and their partners.

Ask your MR monitoring partner, "What resources can you bring me to help manage patients through the entire care continuum?"

Together, we move forward

Drawing on the best minds has never been more important than it is today.

It's why we're bringing the resources of our entire company to go beyond technology and help you manage patient populations throughout the care continuum. Take a look at where we have been and envision where we are going together. **Because it's a new day. For you and for us.**



No other MRI monitoring company can point to progress like this for you and your patients.

Trusted by the best

Every one of the top 10 children's hospitals in the U.S.* uses Expression MR patient monitoring solutions to help advance patient care.

*U.S. News and World Report, 2014

Every Expression MR400 monitor is backed by the experience and expertise of our Philips team.

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Model number: MR400
Part number: 866185

[1]Larson, A. C., White, R. D., Laub, G., McVeigh, E. R., Li, D. and Simonetti, O. P. (2004), Self-gated cardiac cine MRI. Magn Reson Med, 51: 93–102. doi: 10.1002/mrm.10664.

[2]Birkholz, Torsten MD; Schmid, Markus MD; Nimsky, Christopher MD; Schüttler, Jürgen MD; Schmitz, Bernd MD; ECG Artifacts During Intraoperative High-Field MRI Scanning; Journal of Neurosurgical Anesthesiology: October 2004 – Volume 16 – Issue 4 - pp 271-276.