

5 reasons why Point-of-Care MRI is the future of Diagnostic Imaging

1. Fully integrated, real-time healthcare solutions

Point-of-Care MRI, as an integral part of the Internet of Things, is bringing fully integrated, real-time healthcare solutions.

P-o-C devices enable the accurate, simple, and efficient generation and gathering of healthcare data from the patient's home, physician's office, clinic or hospital. The data is made immediately available as part of the patient's electronic medical record, which will enable healthcare professionals to monitor patients more effectively, and provide a timely and accurate assessment of the patient's condition.

IoT-enabled devices embedded in Point-of-Care medical equipment will provide fully integrated, real-time healthcare solutions, enabling healthcare professionals to:

- **Monitor patients more effectively**
- **Assess which patients require more immediate attention**
- **Improve an individual patient's care**
- **Improve overall health outcomes**
- **Allow immediate or rapid decision making**
- **Access and transmit Electronic Health Records (EHRs) in real time — in a completely secure IT environment**

2. Improved diagnosis, rapid treatment, and enhanced detection capabilities

The medical benefits of having the device available at Point-of-Care sites will lead to a significant improvement in diagnosis, treatment turnaround time, and also short and long-term detection enhancement.

Data gathered from a network of IoT devices will be able to:

- **Significantly lower margins of error**
- **Detect the onset of a wide range of health issues**

- **Decrease pre-analytic error**

Clinical laboratory errors directly lead to increased healthcare costs and decreased patient satisfaction:

*"... the pre-analytical phase remains the most error-prone part of laboratory testing due ... to the presence of many steps that occur both before and after the specimen reaches the laboratory. More than one-fourth of all pre-analytical errors are estimated to result in unnecessary investigation or inappropriate patient care, thus resulting in additional financial burden on healthcare system." (Mario Plebani, Paolo Carraro. *Clinical Chemistry*; 43(8):1348-1351)*

3. Patient-centered and Patient-friendly

Point-of Care diagnostic systems enable the transition from "fee for service" models of healthcare delivery to "value added" care models, increasing the focus on value-based, patient-centric care.

- **Transition from "fee for service" models of healthcare delivery to "value added" care models**
- **Enhanced patient monitoring and rehabilitation practices**
- **Care needs to be less fragmented and more patient-centered**
- **Increase patient comfort**
- **Prompt diagnosis and treatment**
- **Fewer trips to a medical center**
- **Reduces patient anxiety and improves patient compliance**
- **Cut down on the necessity for routine reviews and checkups**

An increased focus on value-based, patient-centric care is creating a healthcare model in which providers are compensated based on how their patients fare, rather than by the number of tests, visits, or procedures performed.

With a swifter process of diagnosis and treatment and fewer trips to physicians or clinics, Point-of-Care MRI provides significant benefits to both patient and the healthcare system generally.

4. Significant improvements in healthcare safety and efficiency

Compact MRI systems are safe, user-friendly and convenient and can be easily installed in areas with the most urgent need for rapid diagnosis and therapy, contributing to a significantly more efficient and effective system of patient diagnosis.

- **Situated in areas with the most urgent need for rapid diagnosis and therapy, such as emergency departments, surgical suites, critical care units, certain outpatient areas, as well as remote areas**
- **Shortened length of stay**
- **Rapid response to critical events**
- **Safe, no-radiation, easily accessible, user-friendly, patient-friendly**
- **More rapid decision making and triage, reduced operating times, reduced high-dependency, reduced postoperative care time**
- **Prompt treatment saves time, cuts down return visits, and most importantly, gives better health results.**

Emergency departments, surgical suites, critical care units, outpatient areas, and even remote or rural healthcare facilities will all benefit from safe, easily installed and convenient compact MRI systems.

Decreased turnaround time and immediate access means more rapid decision making and triage, reduced operating times, reduced care time, and a significantly more efficient and effective system of patient diagnosis.

5. Substantial cost reduction

A more efficient healthcare system is a more economical one, leading to a more cost-effective system for patient and provider alike.

- **Reduce examination time and thus be more cost-effective**
- **Reduce emergency room time, reduce number of outpatient clinic visits, reduce number of hospital beds required**
- **Ensure optimal use of professional time**
- **Lower costs to the patient and health plan**
- **Prompt diagnosis and treatment also results in significantly less time away from work for the patient**

Reduced examination time, emergency room time, number of outpatient clinic visits, and number of hospital beds required, will lead to a more cost-effective system and ensure optimal use of professional time. This will, in turn, result in lower costs to the patient and reduced health plan fees. Prompt diagnosis and treatment will also result in a significant reduction in lost working days: good for patients, healthcare professionals and insurers alike.

Conclusion

Point-of-Care MRI is about maximizing efficiency by putting the patient first, while ensuring that the healthcare sector operates in a cost-effective, productive and effective way.

As technology develops with increased miniaturization of devices and improvements in wireless communication, the way in which doctors care for patients is changing dramatically and the role patients take in their own healthcare is increasing.

Healthcare is becoming more personalized and the immediate future is likely to bring new levels of precision and efficiency in the way information is transmitted and interpreted and, therefore, in the way medicine is practiced.

The development of low-cost, compact MRI is making affordable diagnostic imaging more widely available at the Point-of-Care in mainstream healthcare facilities, and also in remote or rural communities and smaller medical units that do not have ready access to these technologies.

The Point-of-Care is where healthcare professional and patient come together, the place where the care takes place, where healing is the priority, as part of a healthcare system that is increasingly efficient and effective. Today and tomorrow, the Point-of-Care is here, is anywhere.