Mart REMOTE MONITORING

White Paper



Addressing Disconnected Patients Through Remote Monitoring

Introduction



Disconnected patients present а significant challenge in healthcare, impacting patient follow-up and burdening medical teams with timeconsuming processes. This paper explores the importance of patient connectivity and the importance of third-party remote monitorina platforms as a solution for managing disconnected patients. By leveraging third-party solutions' unique features, healthcare providers can enhance patient care, improve staff productivity, and ensure accurate patient records.

Techniques to Optimize Patient Connectivity

COR	LOE	Recommendation
١	C-EO	 For the care of patients with CIEDs on RM who lose connectivity, it is recommended that clinics have an established process that includes dedicated clinic staff to facilitate reconnection.

Recommendations for techniques to optimize patient connectivity

Patient connectivity issues, specifically disconnections from remote transmitters, pose a critical problem in effective patient care and follow-up. Recent studies reveal that approximately 18.6% of followed patients experience disconnection issues.¹ Moreover, around 70% of medical centers report at least a 10% disconnection rate among their patients.¹ These statistics highlight the scale of the problem and the urgent need for effective solutions.

What factors contribute to patient disconnections?

• Malfunctions/Technical Issues:

Transmitter malfunctions or technical issues, such as hardware failures, software glitches, or network connectivity problems, which may lead to temporary disconnections.

• Vacation/Time Away from Home:

During vacations, patients may experience disconnections due to travel-related factors, limited network coverage in certain areas, or failure to bring the necessary equipment.

• Hospitalization:

Hospital stays can cause disconnections due to interference with medical equipment or the unavailability of compatible monitoring infrastructure.

• Unplugged Transmitter:

Patients may inadvertently disconnect their transmitters by unplugging or mishandling the devices.

• Other Reasons:

Additional factors contributing to disconnections include battery depletion, device maintenance requirements, or patient non-compliance.

Maintaining continuous connectivity to remote transmitters is essential for monitoring patients' conditions and enabling timely interventions. Connected patients experience improved healthcare outcomes and enhanced quality of life, as healthcare providers can track their progress, detect potential issues, and intervene promptly.

Continuous patient connectivity is crucial and the responsibility of the patient and the device clinic, as highlighted in the expert consensus statement released in May 2023 by HRS/EHRA/APHRS/LAHRS, underscoring the importance of establishing a dedicated process to facilitate the reconnection of patients with CIEDs on RM who lose connectivity.

Conventional approaches are time-consuming

- Identifying disconnected patients requires:
 - visiting the various manufacturer websites
 - finding the list of currently disconnected patients
 - identifying which ones are newly disconnected, for example, by maintaining a spreadsheet with the list of disconnected patients.
- Another approach to identifying disconnected patients relies on only looking at missed remote follow-ups. Although this is a valid approach, it is worth noting that since some patients are only scheduled to transmit every 90 days, a missed remote follow-up may happen weeks after the patient has disconnected.
- Troubleshooting connectivity issues can involve different contact methods:
 - \circ calls
 - SMS
 - emails
 - physician mail

It has been reported² that, with conventional remote monitoring such as Paceart:

- identifying disconnected patients can use up to 5 minutes per patient per year.
- troubleshooting connectivity issues can use up to 10 minutes per patient per year, most of which is nurse and technician time.

Incorporating a third-party remote monitoring solution that automates patient connectivity management allows healthcare professionals to redirect their attention to tasks requiring their expertise, improving staff productivity and operational efficiency.

Third-party solutions offer first-rate benefits

Unique solutions like Implicity, a third-party remote monitoring platform, offer an innovative solution for efficiently managing disconnected patients. By leveraging automation and advanced technology, Implicity provides the following benefits:

Auto-Notification and SMS Exchange

Implicity's platform automatically notifies the medical team when a patient becomes disconnected from the manufacturer's website. This triggers a series of automated SMS messages exchanged between the platform and the patient, gathering and recording the reason for disconnection without requiring manual involvement from the clinical staff. For patients that won't respond to SMS, Implicity maintains a list of currently disconnected patients that need to be escalated, for example with a phone call from the device clinic team.

Improved Patient Records

The automation provided by Implicity ensures that patient records remain accurate and up to date. This leads to greater billing accuracy, as the platform automatically captures the reasons for disconnection. Additionally, automated patient record updates save time for medical teams and improve overall efficiency.

• Enhanced Staff Productivity

By automating patient connectivity management, Implicity enables clinical teams with more time to focus on patient care and less on non-value add tasks.

• Patient Empowerment

When disconnection occurs, the platform automatically sends a series of automated SMS to the patient. Patients are prompted to provide the reason for the disconnection, allowing them to actively participate in identifying and resolving connectivity issues. Promoting patient engagement and empowerment by involving them in this process fosters a sense of ownership over their healthcare journey. Patients feel more informed and connected, leading to improved adherence to monitoring protocols and better overall management of their conditions.

Implicity's platform has received praise from many medical professionals, including Dr. Jay Ganji of Piedmont Cardiovascular, who commends its effectiveness. According to Dr. Ganji, "The innovative disconnected patient feature enables us to effortlessly capture individuals who have missing transmissions or encounter difficulties with their devices." This endorsement highlights the platform's ability to address the challenges of patient disconnections and underscores its value in enhancing patient connectivity management."

Conclusion

Addressing disconnected patients through remote monitoring solutions is essential for enhancing patient connectivity management in clinical settings. The statistics highlighting the prevalence of disconnection issues emphasize the urgency of finding effective solutions. By leveraging third-party remote monitoring platforms like Implicity, healthcare providers can improve patient care, staff productivity, and the accuracy of patient records. Automation features such as auto-notification and SMS exchange streamline the process of identifying and resolving connectivity issues, empowering patients to actively participate in their own care. By involving patients and promoting engagement, remote monitoring protocols. With the ability to efficiently manage disconnected patients, healthcare teams can redirect their focus on providing quality care and improving patient outcomes. Implementing remote monitoring solutions is crucial to optimizing patient connectivity and enhancing healthcare delivery in the digital age.

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SMART REMOTE MONITORING

About Implicity

Implicity is a software company that provides a universal cardiac remote monitoring and research platform to clinics and service companies, helping them provide the best remote care to cardiac patients. As a digital Medtech, Implicity develops AI and knowledge based algorithms to reduce healthcare professionals' workload and allows them to potentially predict patient health status. The Implicity platform aggregates, normalizes and standardizes data from all implantable cardiac electronic device across all major manufacturers. In addition to having an FDA cleared solution and multiple CE markings, Implicity has been the first private company authorized to access the Health

Data Hub³, one of the world's largest patient databases, supporting the development of its AI solutions to improve care for patients with chronic heart failure conditions. Implicity covers more than 80,000 patients in 160 medical facilities across the United States and Europe. http://www.implicity.com

¹Observed in 22.105 patients with Medtronic and Abbott implanted cardiac devices, remotely monitored on 7 May 2021. Implicity internal data.

²Seiler A et al.: Clinic Time Required for Remote and In-Person Management of Patients with Cardiac Devices: Time and Motion Workflow Evaluation JMIR Cardio 2021;5(2):e27720

³Health Data Hub is a health data platform put in place by the French government to combine existing health patient databases and facilitate their usage for research and development purposes.

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