EQUUM Medical LIGHTHOUSE SERIES-VOL.2

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REVOLUTIONIZING HEALTHCARE WITH TELEHEALTH SOLUTIONS

CHALLENGE

US hospitals are facing continued challenges related to workforce shortages, access to care, and rising costs due to an aging population and limited healthcare professionals. Limited access to healthcare providers is a concern, especially in rural and underserved areas, which leads to delayed treatment. Addressing these challenges will require a collaborative effort between healthcare providers, policymakers, and the public to ensure that all Americans have access to affordable, high-quality healthcare.

SOLUTION

Telehealth offers a promising solution to US healthcare challenges by allowing healthcare providers to deliver care remotely. This technology can increase access to care in underserved areas, alleviate the shortage of healthcare professionals and reduce costs for patients and their families to make healthcare more accessible and affordable. Overall, the use of telehealth technology has the potential to revolutionize healthcare delivery in the US by providing a more efficient, cost-effective, and accessible way for patients to receive care.

"Equum Medical aims to achieve equality regardless of geography, while optimizing access to care"

COREY SCURLOCK, MD, MBA, EQUUM MEDICAL'S FOUNDER AND CEO

EQUUM MEDICAL AND THE NEXT-GEN DIGITALLY ENABLED CLINICAL WORKFORCE

We are dedicated to tackling the challenges faced by hospitals and healthcare systems with innovative solutions that enhance patient care and address staffing issues. Our Lighthouse series showcases the real-world impact of our services through successful partnerships and positive outcomes. At Equum, each success story comes from designing the right solution for each partner. Schedule a session with the Equum team to get started on learning how virtual care can fulfill your telehealth ambitions today.



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Rural Cardiology Care with Telehealth Solutions

TELE MULTI-SPECIALTY

How Equum Medical Addressed Rural Cardiology Gaps

Equum Medical introduced Total Heart Care solutions to help rural hospitals bridge the cardiology care gap. By combining Tele-Cardiology consultations and continuous Telemetry monitoring Equum enabled remote access to cardiologists, reducing the need for long travel and improving timely diagnosis. In Q3 2024, Equum performed 545 Tele-Cardiology consults, enhancing care for patients at critical access hospitals and reducing unnecessary transfers.



Benefits

- Improved access to specialized cardiology care without patient travel
- Reduced hospital readmissions through continuous remote monitoring
- Lowered transfer rates, with over 250 patients retained at local facilities
- Enhanced patient outcomes and strengthened financial health of rural hospitals

CHALLENGE

Rural areas across the United States face significant challenges in accessing specialized cardiology care, a critical factor in managing heart disease effectively. Nearly 46.3%* of U.S. counties are without practicing cardiologists, with 85.9% of these counties being rural. This shortage forces patients in these regions to travel long distances, with the average distance to see a cardiologist being 87.1 miles compared to just 16.3 miles in more urban areas. This geographical barrier results in delayed diagnoses, prolonged treatment, and ultimately poorer health outcomes. The lack of local specialized care also places additional strain on rural healthcare systems, which are often under-resourced and overstretched.

SOLUTION

To address these challenges, Equum Medical developed Total Heart Care solutions, integrating innovative Tele-Cardiology and Telemetry services to deliver specialized cardiology care directly to patients. Tele-Cardiology enables remote consultations, diagnostics, and follow-ups through real-time virtual consultations, significantly reducing the need for patient travel. Complementing this, Telemetry services offer continuous remote monitoring of cardiac health, allowing early detection of changes and preventing complications, especially beneficial for chronic heart conditions.

In Q3 2024, Equum Medical performed 545 Tele-Cardiology consults across multiple critical access and smaller healthcare facilities. These consults spanned routine to urgent cases, including co-management, follow-up inpatient care, and a unique admission decision support service that determines if patients can remain locally or require transfer.

Ο U T C O M E S

Implementing Equum Medical's Total Heart Care solutions has transformed patient care in rural areas. Patients now access specialized cardiology services without long travel, leading to faster diagnoses and treatments. Continuous monitoring through Telemetry has reduced complications and hospital readmissions, enhancing health outcomes.

The Admission Decision Support[™] program significantly reduced unnecessary transfers. Of the 545 Tele-Cardiology consults in Q3 2024, a substantial percentage involved admission decision support, retaining 254 patients at local facilities. With a secondary transfer rate below 7%, this approach benefits patient care and bolsters the financial health of rural hospitals by reducing transfer costs and keeping care within the community.

Equum's comprehensive program, including Telemetry monitoring and Echo interpretation, ensures timely interventions and guides patients through their clinical course. This innovative approach bridges the cardiology care gap, strengthens the capacity and sustainability of rural hospitals, and improves both patient outcomes and the long-term viability of community healthcare facilities.

Source: Kim, J. H., Cisneros, T., Nguyen, A., van Meijgaard, J., & Warraich, H. J. (2024). Geographic Disparities in Access to Cardiologists in the United States. JACC, 84(3), 315–316. https://doi.org/10.1016/j.jacc.2024.04.054







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TELE-CRITICAL CARE

Progressive Rural Strategies through Telehealth

How Equum Medical Enhanced Rural Hospital Care in the Pacific Northwest

Equum Medical partnered with a 25-bed rural hospital in the Pacific Northwest, integrating virtual nephrology, critical care, and infectious disease services. The approach expanded specialty care access without the need for in-house specialists, enabling the hospital to manage complex cases locally and reduce strain on resources. Virtual services such as nephrology for hemodialysis and critical care support for ventilator management improved care delivery and reduced patient outmigration.



Benefits

- Reduced need for patient transfers, increasing local care retention
- Enabled on-site hemodialysis through virtual nephrology consults
- Enhanced critical care support, including remote ventilator management
- Improved infection control with real-time virtual guidance

CHALLENGE

In a remote community in the Pacific Northwest, a 25-bed critical access hospital serves as the hub for emergency and specialized care across a wide geographic region. Like many rural healthcare providers, the hospital faces considerable challenges, including limited access to specialized services, workforce shortages, and high operational costs. These obstacles impede its ability to provide high-quality, comprehensive services, often prompting patients to seek care elsewhere. This outmigration not only disrupts community connections but also leads to lost healthcare revenue, further straining the hospital and local healthcare resources. To combat these issues, the hospital's leadership pursued an advanced telehealth approach to create a network of integrated, virtual services beyond conventional tele-ICU solutions.

SOLUTION

To bridge these gaps, the hospital partnered with Equum Medical, implementing a robust telehealth strategy to expand access to specialty care without needing inhouse specialists. This collaboration brought specialized services such as critical care, nephrology, and infectious disease consultation into the rural hospital setting. By integrating virtual support across multiple service lines, the hospital could provide timely, high-quality care, reducing strain on local resources. For example, nephrology services through telehealth allowed the hospital to launch hemodialysis on-site, preventing the need for patients to transfer to distant facilities. This has a tremendous impact on local community needs. Similarly, critical care support, including ventilator management and virtual nocturnal rounding, enables the hospital to deliver continuous, advanced care for patients in critical condition. The infectious disease service provided real-time guidance on antibiotic stewardship and infection control, enhancing patient outcomes while reducing the risk of antibiotic resistance.

These services not only addressed immediate patient needs but also created a more sustainable model for rural healthcare delivery, supporting long-term retention and patient loyalty to local healthcare providers. Similar models have been developed to other Equum rural health partners – including addition of telemetry, virtual nursing, virtual cardiology and pulmonology to further collaborate. The synergy of the connected service lines extends the care continuum for numerous clinical and community benefits.

OUTCOMES

The rural health telehealth initiative has significantly transformed healthcare delivery within this community, providing access to quality care close to home. Although virtual, the Equum ProviderPOD™ and their expertise are available and fully integrated into the local system. By reducing the need for patients to travel for specialized services, the hospital has improved patient outcomes, increased patient retention, and fostered a more resilient healthcare system. Telehealth services have also led to operational efficiencies, allowing the hospital to reduce costs and use resources more effectively, all while meeting high-acuity care demands. This partnership with Equum Medical illustrates how innovative, integrated telehealth solutions can help address workforce shortages, reduce expenses, and curb patient outmigration—establishing a new standard for healthcare delivery in rural settings.



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Virtual Nursing A Framework for Care Standardization

VIRTUAL NURSING

How Equum Medical Standardized Care with Virtual Nursing

Equum Medical partnered with a leading national hospital operator to address critical nursing shortages and streamline patient care across a large network of community hospitals through the implementation of a Virtual Nursing program.

This program allowed bedside nurses to delegate specific tasks—such as managing patient admissions, discharges, and medication documentation—to virtual nurses, enabling them to focus on higher-acuity care.



Benefits

- Increased nurse productivity and satisfaction by reducing task burdens on bedside staff
- Enhanced patient care through prioritized focus on critical needs
- Reduced stress levels for nursing teams during highdemand periods
- Lowered readmission rates and improved patient satisfaction
- Established a scalable model for expanding virtual nursing across multiple facilities

CHALLENGE

A leading national hospital operator with a prominent network of community hospitals across the United States has been grappling with significant challenges due to a shortage of nurses and high patient-to-nurse ratios. As these hospitals strive to maintain high standards of care, nursing staff are often overwhelmed by the demands of streamlining patient admissions and discharges. This situation has led to a critical gap in the ability to provide consistent, high-quality care. Nurses within this network expressed a need for virtual nursing support to enhance productivity, manage patient loads more effectively, and improve overall patient care. The projected shortage of nurses, further exacerbated by the COVID-19 pandemic, highlighted the urgency for innovative solutions to sustain care standards and support bedside nurses.

SOLUTION

To address these challenges, Equum Medical partnered with the leading national hospital operator to implement a virtual nursing program in collaboration with a telehealth medical technology provider. The initiative aimed to provide bedside nurses with virtual support, allowing them to focus on more critical patient needs while virtual nurses handled tasks such as patient admissions, discharges, and medication management.

This collaboration involved the establishment of a Virtual Care Collaboration Center, where virtual nurses were available 24/7 to assist with various tasks as needed. The program was designed to integrate seamlessly with existing clinical workflows, ensuring that bedside nurses could delegate specific responsibilities to virtual nurses, thereby optimizing patient care and reducing the burden on in-person staff.

Ο U T C O M E S

The implementation of the virtual nursing program, led by Equum Medical's expertise, resulted in a significant boost in nurse productivity and satisfaction across the network. With 24/7 virtual nursing support, bedside nurses were able to better prioritize their tasks, resulting in increased confidence in managing complex admissions and discharges. This collaboration not only reduced the stress levels of the nursing staff but also improved patient care, particularly during the critical discharge phase. The program's success fostered a more efficient and supportive care environment, leading to a decrease in readmission rates and an increase in patient satisfaction. The positive outcomes have prompted the hospital operator to work with Equum Medical on expanding the virtual nursing model across its entire system to further optimize clinical workflows and enhance patient outcomes across various facilities.





VIRTUAL TELEMETRY

Virtual Telemetry Optimizes Resource Allocation

How Equum Medical Optimized Telemetry Resource Allocation

Equum Medical partnered with a large nationwide hospital operator to address inefficiencies and resource challenges in telemetry management through its Virtual Care Collaboration Center (VCCC), Equum implemented a remote telemetry monitoring solution, enabling dedicated professionals to oversee patients in real time. This approach allowed bedside nurses to prioritize direct patient care and operate at the top of their licenses.



Benefits

- Reduced unnecessary telemetry use, cutting costs and improving efficiency
- Enhanced patient flow with fewer bottlenecks in emergency departments
- Early detection of potential issues, reducing emergency codes and patient deterioration
- Improved discharge processes and overall patient outcomes
- Greater job satisfaction for nurses by reducing workload stress and improving care focus

CHALLENGE

A large nationwide hospital operator, focused on standardizing care across its hospital network, is increasingly facing challenges in managing telemetry services due to high costs, limited resources, and inefficiencies in patient flow. Traditionally, nurses in these hospitals are responsible for monitoring telemetry, but this task often competes with other patient care duties, leading to potential gaps in monitoring and delayed interventions. The hospitals within this system struggle with the misuse of telemetry resources, resulting in higher inventory management costs and bottlenecks in patient discharge and throughput, particularly from emergency departments.

SOLUTION

Equum Medical addressed the hospital's telemetry challenges through its Virtual Care Collaboration Center (VCCC), which provides continuous, remote monitoring by dedicated professionals. This solution allows clinical teams to oversee multiple patients in real-time, responding to alarms and providing timely interventions. By offloading telemetry monitoring to the VCCC, nurses can focus on direct patient care, improving efficiency and working at the top of their licenses.

Equum Medical's expertise in remote monitoring optimizes resource allocation by reducing unnecessary telemetry use, cutting costs, and enhancing patient flow. The proactive approach ensures early detection of patient deterioration, preventing the need for higher levels of care. Equum's virtual telemetry solution not only improves patient outcomes but also streamlines operations, enhancing overall hospital efficiency.

OUTCOMES

The introduction of virtual telemetry has led to several positive outcomes for hospitals. By optimizing telemetry use, hospitals have seen a decrease in unnecessary telemetry monitoring, leading to lower inventory costs and improved resource management. Patient flow has been significantly enhanced, with fewer bottlenecks in emergency departments and more efficient patient discharges. The early detection of potential issues has shifted the focus from reactive to proactive care, resulting in fewer emergency codes and better overall patient outcomes. Nurses have also benefited, as they can now work at the top of their licenses, dedicating more time to direct patient care rather than monitoring tasks. Ultimately, this approach has led to improved hospital efficiency, better patient care, and a more satisfied nursing staff.





Innovative Admission Decision Support[™] for Rural Health

ADMISSION DECISION SUPPORT

How Equum Medical Supports Rural Hospitals with Tailored Admission Decision Programs

Equum Medical's Admission Decision Support[™](ADS) program offers a structured, multidisciplinary approach to helping rural hospitals make informed decisions about patient admissions. This solution ensures that rural hospitals can manage complex cases effectively while keeping patients closer to home whenever possible.



Benefits

- Reduced unnecessary patient transfers, ensuring continuity of care locally
- Enhanced collaboration between ER teams and specialists for better outcomes
- Increased provider confidence in managing complex cases
- Improved patient satisfaction through timely, community-focused care
- Strengthened resource allocation and operational efficiency in rural hospitals

CHALLENGE

Emergency rooms and hospitals often face a critical question: "Is this patient safe to be admitted at this facility, or do they require transfer to a higher level of care?" Answering this requires navigating a 'grey area' where clinical needs, facility capabilities, and logistical considerations intersect. Without specialized support, these decisions can lead to unnecessary transfers, delayed care, or misallocated resources, impacting patient outcomes and straining healthcare institutions. Conditions such as chest pain, atrial fibrillation, renal failure, cellulitis, and septic shock frequently highlight the need for precise, informed decisionmaking.

SOLUTION

Equum Medical's Admission Decision Support™ (ADS) program provides a structured, multidisciplinary approach to helping bedside providers make well-informed decisions regarding patient admissions. Emergency room teams and hospitalists consult Equum specialists in real time for guidance on complex cases. These consultations assess the patient's condition, procedural needs, and the capabilities of local facilities to determine whether the patient can be safely treated locally or requires transfer. If a transfer is necessary, Equum consultants remain engaged until the patient's transition is complete.

The ADS program is tailored to each institution's unique needs. By assigning providers to specific facilities, Equum develops a deep understanding of local resources and culture, ensuring customized and efficient decision-making. This tailored approach is key to optimizing care delivery and keeping patients closer to home whenever possible.

Ο U T C O M E S

The ADS program has proven transformative for patients, providers, and institutions alike. Patients benefit from enhanced satisfaction and continuity of care by avoiding unnecessary transfers and staying within their community. Providers gain critical support in managing complex cases, allowing them to focus on delivering care rather than deliberating over logistical challenges.

In Q3 alone, Equum's ADS program demonstrated its impact to our customer by retaining 72% of Cardiology ADS cases—243 patients—who were safely treated without transfer. By addressing the nuanced challenges of patient admissions, the ADS program bridges the gap between local facilities and specialized care, enabling hospitals to provide high-quality, efficient, and community-focused healthcare.





Virtual Nephrology Keeps Kidney Care Local and Accessible

TELE MULTI-SPECIALTY

How Equum Medical's Virtual Nephrology Services Keep Kidney Care Local

Equum Medical bridges the aap in nephrology care for rural and underserved communities by offering Virtual Nephrology Services. including dialysis and CVVH This solution empowers hospitals to manage complex cases locally, reducing patient transfers, improving operational efficiency, and maintaining continuity of care. By tailoring services to meet the unique needs of each facility, Equum ensures patients receive specialized kidney care close to home.



Benefits

- Reduced patient transfers, increasing access to local kidney care
- Oversight of dialysis and critical nephrology cases by experienced specialists
- Improved operational efficiency and reduced transfer costs
- Enhanced patient satisfaction with timely, community-based care
- Strengthened local hospital capabilities and resilience in rural healthcare

CHALLENGE

In many rural and underserved communities, hospitals and critical access facilities grapple with the lack of on-site nephrology expertise. Patients with complex kidney conditions—such as acute kidney injury (AKI), chronic kidney disease (CKD), end-stage renal disease (ESRD), and related disorders—often require specialized care. Yet local hospitals, particularly those with limited resources, face barriers to offering specialized nephrology treatments like hemodialysis and continuous renal replacement therapies. These gaps lead to frequent patient transfers to distant facilities, which disrupt continuity of care, increase costs, and burden both patients and their families with lengthy travel and separation from their home communities. Ultimately, this dynamic strains smaller hospitals, contributes to patient dissatisfaction, and challenges the sustainability of rural healthcare delivery models.

SOLUTION

Equum Medical's Virtual Nephrology Services bridge the gap by delivering highly specialized kidney care directly into local hospital settings through telehealth technology. Led by board-certified nephrologists, many with critical care backgrounds, Equum's program provides comprehensive consultations and management for a wide spectrum of kidney conditions. This includes guidance on routine cases, intricate acid-base disorders, hypertension, electrolyte imbalances, and multi-organ dysfunction.

Critically, Equum's virtual nephrologists offer oversight for hemodialysis and continuous veno-venous hemofiltration (CVVH). Through secure telehealth platforms, they work collaboratively with on-site teams to monitor patient progress, oversee dialysis treatments, and ensure adherence to local quality standards. Admission Decision Support (ADS) adds another layer of value–Equum helps determine whether patients can be safely managed locally or need transfers, empowering hospitals to retain more patients and bolster their range of in-house capabilities. Each virtual nephrology program is tailored to the hospital's unique resources and patient population, making it possible for even the smallest facilities to deliver timely, specialized nephrology services close to home.

Ο U T C O M E S

By implementing Equum Medical's Virtual Nephrology Services, rural and critical access hospitals have significantly reduced unnecessary patient transfers. Patients are now able to receive advanced kidney care, including dialysis, without leaving their communities. This model has proven effective in settings like a critical access hospital in Northwest Oregon*, where launching virtual hemodialysis kept patients with ESRD close to home and eliminated arduous two-hour transports to larger facilities. As a result, patient satisfaction and trust in local care have risen, and hospitals have strengthened their operational efficiencies by curtailing transfer costs and preserving bed capacity for the community.

Moreover, the admission decision support program has improved provider confidence, enabling local teams to care for complex nephrology cases with the reassurance of specialist guidance. This partnership model reinforces the hospital's role as a trusted healthcare hub, ensuring that patients receive seamless care from hospital admission through outpatient follow-up. Equum Medical's Virtual Nephrology Services are not only expanding access to specialized kidney care but are also fostering long-term community resilience, reinforcing local healthcare infrastructures, and setting a new standard for patient-centric, geographically accessible kidney care.

* https://www.equummedical.com/news-article/new-dialysis-service-at-grh-keeps-patients-close-to-home/



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