

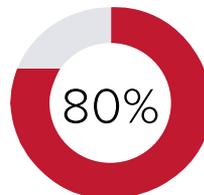


The Hidden Value of Patient Data



Healthcare organizations today are flooded with data and face increasing pressure to make sense of it all. The delivery of patient care generates large amounts of patient data for record keeping, regulatory compliance, diagnosis, and treatment. Historically, much of this data has been stored in paper form, unstructured and siloed. Electronic health records (EHR) helped digitize the data, but the next evolution is to analyze and utilize the data, so it can be used to provide the best care possible. Data can provide meaningful insights on clinical workflows, as well as track key performance metrics established by departments or facilities. To maximize the value of medical data, organizations need to determine how to deliver actionable data to care teams wherever they are located.⁽¹⁾

The big problem is that about 80% of medical data remains unstructured and untapped after it is created.⁽²⁾



This paper discusses:

- The value of health data
- The importance of actionable patient data
- How Spacelabs technology provides access to actionable patient data

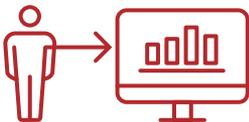


What is the Value of Health Data?

The volume of healthcare data is increasing every minute. Each patient generates hundreds of megabytes of data each year, from electronic medical records to activity logs on personal use fitness trackers. The volume of data and mixture of data sources is growing exponentially, producing a huge amount of information about patients' medical histories, socio-economic circumstances, user preferences and lifestyles.⁽³⁾

For hospitals that successfully manage and integrate patient data into their clinical and operational processes, the rewards can be substantial. Having actionable data available can help improve patient outcomes, lower care costs, provide more access to understanding performance, and increase staff and patient satisfaction rates. However, it is not an easy task and the path to having actionable data available for the care teams can be challenging.⁽⁴⁾

The importance of actionable patient data.



The mission of healthcare institutions requires effective and efficient data delivery for evidence-based intervention, and this cannot happen without digital transformation.⁽⁵⁾

A surge in hospital expenses, resource shortages, and higher patient acuity during the COVID-19 pandemic and beyond have accelerated the need for digital transformation.

Hospitals need to improve how they bring the patient's condition to the clinician, wherever they are located. This goes beyond simple alarm notifications. In today's environment, care

teams require information about who needs immediate treatment, what conditions are causing an alarm, and where the patient is within the facility. This is even more important given the current labor shortages in healthcare that require care team members to have more responsibility than ever before. By using analytics, healthcare systems can optimize patient care, enhance care team satisfaction, and improve overall hospital financials.⁽⁶⁾

How Spacelabs technology provides access to actionable patient data.

Spacelabs' core belief is that technology should be easy to use, provide care teams with the data needed to effectively care for patients, eliminate manual processes whenever possible, and improve communication. Our solution includes mobile apps, EMR integration, and tools to ensure the right patient is on the right device. It also includes closed-loop communication tools with patient dashboards and waveform views plus Modified Early Warning Score Assessment (MEWS) capability.⁽⁶⁾

Mobile Apps Travel with your Care Teams

Mobile features are designed to manage patient monitoring information, coordinate care, and track metrics aimed at improving quality, throughput, and efficiency, all in an easy-to-use format no matter where care team members are located.

Mobile app features include:

Dashboard

Provides an overview of current patients and historical alarms with the ability to manage tasks and access secure messaging.

LiveView

Provides a near-real-time view of the patient's heart rate, blood pressure, respiratory, and SpO₂ vitals along with up to four waveforms.

Bedside

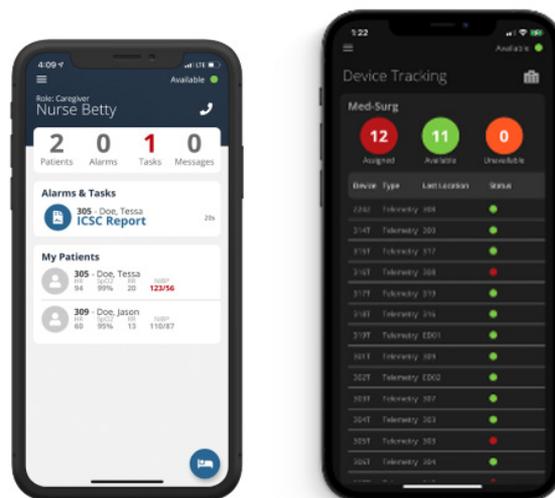
Provides the ability to admit and discharge the patient to and from a Spacelabs device along with managing the patient's temporary location if they go to CT, surgery, or other departments.

Waveforms

Provides an overview of up to 14 days of retrospective waveforms. This includes strip/compressed views and the ability to create one seamless record of waveforms as the patient transitions through the hospital on different monitoring devices.

Caregivers

Displays a list of all caregivers associated to the patient with links to send a direct message or call the caregiver via the SafeNSound app.



EMR Integration

Patient records become more complete with the addition of patient waveforms. Our Enterprise Software can be launched from any PC where the caregiver can approve strips within the system, which then sends a copy directly to the EMR. Not only does this eliminate the need to locate strips, but it also does not require taping, pasting, or manual scanning into the EMR. Another advantage is improved care team efficiencies as data is more readily available to the care team for patient assessments.



Device to Patient Pairing

Preventing duplicate records and ensuring the right patient data is going to the right patient's chart is not as easy as it seems. Patient identification errors can disrupt care and harm patients in virtually every facet of clinical medicine, including diagnostic testing, medication administration, billing, even transplants. The Joint Commission has named improving the accuracy of patient identification as the most crucial National Patient Safety Goal since 2014.⁽⁷⁾

Spacelabs Enterprise Software protects against the possibility of the wrong patient being associated to the wrong device. By automatically discharging a patient from a previous device when admitting to a new one, the duplication or confusion of data that can occur when a patient is admitted to two devices at the same time can be avoided. This ensures that data doesn't go to the wrong patient record, which could lead to improper/unsuitable medical care.

Patient information is also transferred across the enterprise digitally without the need to move modules or equipment between departments or make any adjustments at the central station. This greatly reduces and saves precious care team member the time spent resolving data errors such as wrong information in the wrong chart.



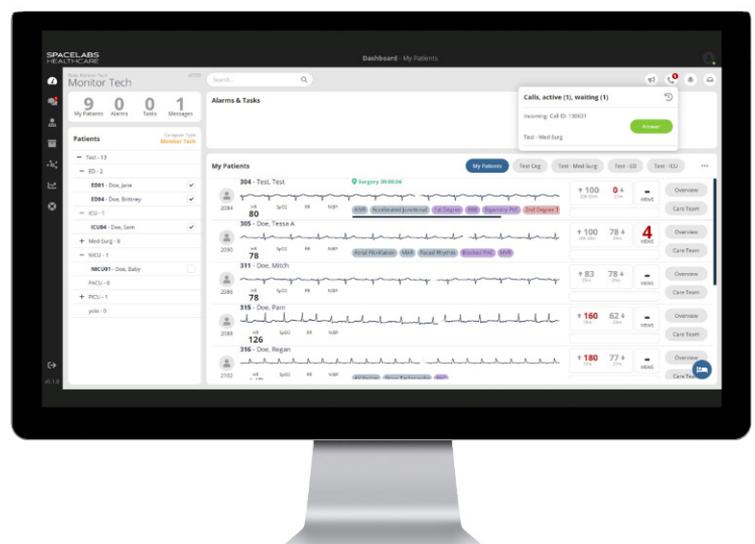
Streamlining and expediting communication.

Hospitals across the county have an increased interest in integrating what used to be multiple forms of communication into one streamlined system.

Spacelabs Enterprise Software offers tools and features that drive closed-loop communication, bringing together data for easy analysis and offering a suite of comprehensive reports that facilitate and document care team communications.

Features include:

- Text-to-voice
- Communications dashboard
- Patient dashboards that compile patient data from numerous devices into one view
- Click-to-call
- Desktop notifications
- Patient monitoring notifications
- Mobile app



Some examples to consider:

The text-to-voice feature allows a monitor tech to contact any caregiver with a quick two-click process and send out standard notifications for 'low battery' or 'leads off' events, resulting in a 20-second plus reduction in the time the caregiver would spend talking to the monitor tech, and eliminating a 30-second plus delay the monitor tech would spend trying to call the caregiver.

The communication dashboard identifies what notifications have been addressed and what need to be addressed. Records of all communications are maintained in case there is a need to go back and review the information.

The click-to-call feature makes contacting the right caregiver much easier by letting the user select the patient, then click "Call" for the caregiver name the user wants to communicate with. All records of the call are tracked and recorded for further review if needed.

Modified Early Warning Score (MEWS)

Severe adverse events such as cardiac arrest and death are often heralded by abnormal vital signs hours before the event. Early recognition and response to subtle changes in a patient's condition can trigger an escalation to a higher level of care.

Functioning as a prediction system, MEWS is a simple, physiological score that utilizes heart rate, respiratory rate, temperature, non-invasive blood pressure, and AVPU to determine a patient evaluation score. Based on the MEWS score, the tool suggests an observation interval that is appropriate for the patient's current condition. The primary goal is to ensure a timely escalation of patient care and prevent adverse outcomes.



Suggested Patient Observation

Based on Score (MEWS)	
Patient Score	
1-2	Every 2 Hours
3	Every 1-2 Hours
4-5	Every 1/2 Hour



Greater efficiencies using Enterprise Software.

As healthcare organizations increasingly seek technology that facilitates evidence-based, data-driven decisions, caregivers are turning to Spacelabs Enterprise Software. Technology can positively impact care team members by providing actionable data and enhanced care team communication, so that staff can focus on the patients that are most in need of care and collaborate more effectively on care decisions, with the goal of providing the best patient experience possible.

If you are interested in learning more about our Enterprise Software, please contact us at 1-800-522-7025. We can arrange an on-site discussion or video conference at your convenience.

References

- (1) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4341817/>
- (2) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6372467/>
- (3) <https://www.experian.com/blogs/healthcare/2022/06/healthcare-data-the-value-of-historical-patient-data/>
- (4) <https://healthitanalytics.com/news/top-10-challenges-of-big-data-analytics-in-healthcare>
- (5) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6486797/>
- (6) <https://healthitanalytics.com/news/how-high-performing-teams-advance-healthcare-analytics-capabilities>
- (7) http://www.ihl.org/resources/PublishingImages/Image_PatientAssessmentObservationInfusionMonitoring.jpg

www.spacelabshealthcare.com

35301 SE Center Street, Snoqualmie, WA 98065 | T: +1 425 396 3300 | F: +1 425 396 3301

Unit B, Foxholes Centre, John Tate Road, Hertford, SG13 7DT, UK | T: +44 (0) 1992 507700 | F: +44 (0) 1992 501213

SPACELABS
HEALTHCARE

An OSI Systems Company

© 2022 Spacelabs Healthcare Specifications subject to change without notice. 030-2525-00 Rev A