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Taking the Pulse Image: Constraint of the pulse Image

High-tech Hospitals Earn Stage 6, Stage 7 Electronic Records Accreditation with the Help of Barcode Readers

Barcode technology plays a critical role in transitioning to paperless healthcare delivery

Although organizations across industries rely on and reap the benefits of barcode readers, the technology's use cases within the healthcare industry are among the most vital. After all, lives are at stake, and barcode scanning technology has proven highly effective in reducing patient mortality rates—researchers have long determined that its use can reduce medication administration error alone by up to 85 percent.

For decades, the Healthcare Information and Management Systems Society (HIMSS) has recognized the efficacy of barcode scanning technology in driving better patient outcomes.



A non-profit entity committed to improving healthcare safety and quality, HIMSS incorporated the usage of barcode scanning systems into its criteria for Electronic Medical Record Adoption Model (EMRAM) accreditation.

What are EMRAM Stage 6 and Stage 7 hospital ratings and why do they matter?

The HIMSS EMRAM is an 8-stage matrix (0–7) for assessing and rating a hospital's progress in adopting electronic health record (EHR) technology and moving toward a paperless environment. To apply for an EMRAM rating between stages 0–5, a hospital conducts and submits a self-assessment to HIMSS, receiving a gap overview report that includes an EMRAM

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score. For hospitals with the potential for a Stage 6 or Stage 7 rating, a team of HIMSS experts and assessors from existing upper-tier hospitals perform comprehensive on-site visits to verify capabilities and award rankings accordingly.

Stage 6 and 7 HIMSS ratings offer healthcare providers critical validation of their digital maturity and ability to effectively leverage technology in delivering exceptional care. The recognition can play a positive role in recruiting talented employees, boosting staff retention, and connecting with a larger community through highprofile opportunities for sharing knowledge. Plus,



in preparing for EMRAM assessment, hospital staff gain greater awareness of the HealthIT tools available and how they enhance patient care. Greater knowledge leads to a higher level of technology adoption and an increased likelihood of achieving the objectives of various digital strategies across a healthcare organization.

How do Stage 6 and Stage 7 hospitals leverage barcode technology for accreditation?

In assessing healthcare providers for Stage 6 accreditation and higher, EMRAM places significant value on closed-loop management systems, which employ fully electronic processes to prescribe, dispense, and administer medication, blood products, and milk safely and accurately. Many of these systems involve barcode technology for critical verification at the point of care.

For example, in a closed-loop medication management scenario, a doctor creates an electronic prescription order, which the hospital pharmacy then verifies. Next, a pharmacist dispenses the prescribed medication in unit doses, with a barcode on the back of each dosage packet. Then, at bedside, a nurse scans the patient's wristband and medication packet with a barcode reader to confirm that the right medication will be provided in the right way. Once verified, the nurse administers the medication and updates the patient's electronic medication administration record.

What barcode hardware do hospitals use in establishing paperless medical practices? In some industries, a wide range of barcode scanning tools will suffice for the job at hand. But in healthcare, high-performance scanning technology is non-negotiable for providing highquality service and driving optimal patient outcomes. Data capture specialists, of course, understand this and have been diligently evolving the barcode scanner to support caregivers. Some barcode suppliers, like Code Corporation, have developed healthcare-ready hardware and decoding algorithms that tackle common challenges. These issues include scanning in low light (think a patient's room at night) or reading barcodes on virtually any material (like cylindrical medication bottles, shiny vials, or a patient's ID wristband). Code offers barcode

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scanners that healthcare organizations can count on for speed, accuracy, and reliability in their workflows, including:

- CortexDecoder Mobile Software Development Kit (SDK). Engineered for near-zero-miss barcode reading via any mobile device with an embedded camera, CortexDecoder SDK allows nurses to use a healthcare organization's own phones or devices for data capture and transmission.
- Code Reader 2700 (CR2700) barcode scanner. Benefitting from years of refinement, Code's fourth-generation barcode scanner, the CR2700, offers unparalleled performance for care providers scanning and transmitting patient data directly to EHR systems.
- Code Reader 8200 (CR8200) scan engine. Installed in healthcare facility kiosks, CR8200 scan engines enable providers to offer no-contact services, including wayfinding and providing test results. Learn how IT firm Çizgi Technology leveraged CR8200 engines to implement selfservice queue management kiosks in new hospitals, helping stem coronavirus transmission in Turkey.



The humble barcode has come a long way in nearly 50 years of commercial use. Once a basic inventory management tool, barcodes—and along with them, barcode scanners—are playing increasingly bigger roles in both hospital digitalization for accreditation and patient care.

For additional guidance or information on barcode scanning technology for healthcare providers, contact a Connection Sales Rep.