



How QR Codes Are Digitalizing Patient Admission in Healthcare

○ Connecting Health Systems to What Matters Most



There was a time when the Quick Response (QR) code was considered niche—a square of digital static that required specialized apps and ideal lighting to function. However, 2020’s global shift toward contactless interaction turned the QR code into the “comeback kid” of data capture because it provided a cost-effective and readily scannable physical-to-digital linkage. For healthcare administrators and Health IT professionals, the QR code is no longer just a trend; it is a vital tool for digitalizing the patient journey from the lobby to the lab.

The Architecture of Efficiency

Invented in 1994 to track automotive parts, the QR code (a type of 2D barcode) was designed for speed and data density. Unlike traditional 1D “picket fence” style barcodes, QR codes store information both horizontally and vertically. This allows them to hold hundreds of times more characters—such as URLs, patient record identifiers, and encrypted result strings—within a compact footprint.

The real shift occurred when smartphone manufacturers integrated QR scanning directly into native camera apps. This change lowered the barrier to entry, allowing any mobile device user to access marketing promotions, coupons, or product information. During the 2020 global pandemic, restaurants ditched physical menus altogether in favor of QR codes displayed on tabletops.

Some service environments went a step further, especially those inside airports or brewpubs. At many of these locations, you not only view the menu by scanning a QR code, but you also place your order and complete payment—all touchless, all from your phone, and all originating with a QR code scan.

Hospital Self-Service Kiosks: Streamlining Patient Admissions with 2D Scanning

Another prime example of QR codes in action comes from healthcare’s automated check-in kiosk. By integrating [high-performance data capture hardware](#) into self-service kiosks, one of the world’s largest medical complexes uses QR codes to:

Accelerate Admissions

Patients scan their government-issued ID at a check-in kiosk upon arrival. The admissions kiosk then checks them in, verifies their identity, and updates the health record system in real-time.

Direct Patients

Hundreds of these self-service admissions kiosks support operations at the sprawling medical complex—which features eight facilities and over one million square meters of indoor space (that’s over 15 US football fields). By scanning a provided QR code at a lobby kiosk, patients receive turn-by-turn directions to their specific ward or clinic.

Secure Results Reporting

Following a lab draw or procedure, the patient returns to a self-service kiosk and scans a clinician-provided QR code to securely retrieve test results.



PDC’s OEM-ready SDK and scanners are used for QR code scanning in self-service check-in kiosks at large medical complexes.

Beyond the Hospital: Travel and Wayfinding

Within the transportation industry, QR codes have become the gold standard for airport wayfinding and check-in kiosks. PDC's general-use SDKs, for instance, allow kiosks to quickly scan QR codes off screens—even those with cracks or low brightness settings—to direct travelers to their gates. These kiosks offload transit personnel and provide directions in virtually any language, making all travelers feel welcome.

The Professional Advantage: Why High-Performance QR Decoding Matters

Although consumer-grade smartphone cameras took the QR code mainstream, [modern clinical environments require professional-grade scanning](#). A standard camera may struggle with damaged or poorly printed QR codes, glare-heavy screens, or the dim lighting found in many healthcare settings.

PDC's portfolio of barcode scanning hardware and CortexDecoder® SDK are engineered to overcome these obstacles. By utilizing proprietary decoding algorithms, PDC technology ensures exceptional first-time scan rates for QR codes on medical supply packaging and over-the-counter medications. This healthcare barcode scanning technology also excels with the data-dense 2D Data Matrix barcodes that are becoming increasingly prominent within hospital and medical supply chains.



QR and Data Matrix barcodes support medication safety by storing vital batch data for global traceability.



We're powered by Brady—a global provider of interconnected identification solutions at scale.

Future-Proofing Data Capture for Your Operations

The QR code has also paved the way for a massive point-of-sale transformation within retail known as Sunrise 2027. With the [Sunrise 2027 initiative](#), GS1—the leading [non-profit focused on barcode standardization](#)—is helping the retail industry replace legacy 1D barcodes with web-enabled 2D barcodes (like the well-known Data Matrix barcode type). Looking and behaving much like QR codes to everyday shoppers, scanning 2D barcodes on packaging can provide an item's harvest date, the most recent allergen info, nutritional information, recommended pairings, and coupons.

These high-density barcodes also offer tremendous value to retailers. When a clerk scans a 2D barcode at checkout with a [retail-ready, data-parsing scanner](#), for instance, they can receive an automatic stop-sale based on an expiration date or recall status. In some markets, 2D barcodes help prevent the retailer from breaking the “unsafe” provision under Article 14(1) of the EU General Food Law.

As retail and commerce managers look toward the Sunrise 2027 initiative and the continued digitalization of the supply chain, the QR code's prominence will only expand because it is widely understood by the general population. Whether you are managing a single admission desk or coordinating healthcare supply procurement across a multi-facility medical complex, the ability to accurately capture and parse 2D data is the key to a more efficient, patient-centered future.

Streamline your facility's data capture with high-performance [2D barcode scanning hardware and software](#). Contact our US-based healthcare technology experts to explore PDC's full portfolio of scanners and SDKs.

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