IMPROVING PATIENT SAFETY AND OPERATIONAL EFFICIENCY WITH THE MOTOROLA DS6878-HC

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The DS6878-HC is loaded with the features required to enable robust data capture throughout healthcare facilities, including the ability to disinfect both scanner and cradle, easy integration with virtually any computer or workstation on wheels (COW or WOW), cordless convenience and safety, the dependable performance required in acute care environments, and the ability to capture nearly any type of data — from 1D and 2D bar codes to signatures, photos and documents.

GLOBAL HEALTHCARE CHALLENGES: THE PREVALENCE OF MEDICAL ERRORS AND EMERGING GOVERNMENT REGULATIONS

Healthcare organizations all around the world are faced with two major issues: the vast number of medical errors that threaten patient safety and emerging government regulations to prevent those errors.

In the U.S. alone, the Institute of Medicine estimates that a minimum of 1.5 million events occur annually, resulting in approximately 7,000 deaths and a conservative cost of $3.5 billion a year.1 In Europe the issues are equally paramount. The Special Eurobarometer report reveals that 18 percent of patients in the 25 Member States experienced a serious medical error in their local hospitals.2

To address this issue, government bodies around the world have either enacted or are considering regulations that will require documentation to help prevent medical errors. As a result, hospitals must determine how to enable and prove compliance without requiring an already overburdened healthcare staff to complete additional paperwork — adding expenses that would further increase skyrocketing healthcare costs.

THE SOLUTION: WIRELESS DATA CAPTURE

Motorola's DS6878-HC cordless 2D imager can help address all these issues and more by enabling scanning of virtually any bar code symbology as well as the capture of images, documents and signatures. The result is the ability to error-proof and streamline procedures from admitting, the emergency room

and the pharmacy to storage supply areas and patient rooms. Built specifically to address the special needs of healthcare environments, this scanner enables the automatic capture of information without paper and pen, or the subsequent need to enter that information into a computer. The opportunity for data capture errors is eliminated. Cycle times are reduced, increasing staff productivity. The ability to easily compile required documentation enables cost-effective compliance with government regulations. And the wireless design enables many applications that not only improve patient safety and enable government compliance, but also help improve operational efficiency throughout the hospital, including:

- **Medication administration.** The ability to scan the bar codes on the patient wristband and the medication provides a split second verification that the right patient is about to be given the right medication, the right way at the right time. No extra paperwork is required, time is actually saved, while medication errors can be spotted before medication is administered. In addition, caregivers can also scan the bar code on their identity badges, creating an automatic audit trail that increases accountability.

- **Pharmacy procedures.** Bar code scanning can prevent errors at the start of the medication supply chain —the pharmacy. The ability to scan the bar code on medication and compare it to the medication order ensures that the right medication is prepared and issued for the right patient.

- **Enriched patient identification information.** With 2D imaging, a caregiver can capture a photo of a patient's face and other indisputable identifying marks (such as scars, birthmarks or tattoos) to prevent mistaken identity — especially helpful in ensuring that unconscious trauma patients receive the right medication, tests and surgical procedures.

- **Faster admission.** Multiple data capture options error-proof and streamline the admitting process, enabling faster treatment and a better healthcare experience. With 2D imaging, caregivers can capture signatures in the emergency room, right at the point-of-care. The ability to capture the 2D bar codes found on some driver's licenses and other identification cards enables the auto population of key fields on

admission forms. A variety of documents can be captured in seconds and permanently appended to the patient's electronic record — including healthcare proxies, living wills and insurance cards — eliminating the time and cost associated with photocopying documents and managing paper files.

- **Specimen collection.** The ability to scan a patient wristband and print out a bar code label right at patient bedside for a specimen container (requires an optional mobile printer) ensures that specimens are collected from the right patient. As a result, the right patient receives the right test results — and the right treatment.

- **Better inventory visibility.** When bar code scanning replaces manual paper-based inventory procedures, hospitals can cost-effectively take rapid and accurate inventories on a daily basis — from the contents of the supply cabinets on each hospital floor to the pharmacy shelves. The result is the visibility required to improve the speed and accuracy of the ordering and replenishment process, ensuring that the caregivers always have the right supplies and medications on hand to treat patients. Automatic chain of custody for controlled substances. As sensitive items such as narcotics move throughout the hospital, a quick scan of the employee badge and the item provides visibility into the complete chain of custody — ensuring availability, improving accountability and deterring theft.

- **Operating room inventory.** A cordless scanner is ideal in operating rooms, allowing nurses to scan inventory prior to and after a procedure. The hospital now has the real-time inventory information required to ensure timely ordering. The last known location of surgical instruments and equipment is captured for easy tracking. And caregivers can instantly spot any missing items to ensure that items are not inadvertently left inside the patient.

- **Charge capture.** The ability to scan consumables as they are utilized in the emergency room, operating room, recovery room and patient room enables the instant and accurate capture of all items utilized for a specific patient. As a result, all appropriate charges are captured on patient invoices, protecting the financial health of the hospital.

KEY BENEFITS

- Error proofs the medication supply chain from pharmacy to patient
- Ensures proper patient identification with the ability to capture photos of faces and other identifying marks
- Error-proofs specimen management, ensuring that the right patient received the right diagnosis and the right treatment
- Enables cost-effective real-time inventory visibility throughout the hospital, ensuring timely ordering of mission critical supplies
- Streamlines admission with the ability to capture and append electronic versions of documents to patient files — from insurance cards and driver's licenses to heathcare proxies
- Scanning of consumables at patient bedside ensures the capture of all appropriate charges, protecting the hospital's financial health
- Ability to scan the bar code on a meal tray and the patient wristband ensures that the right patients receive the right meal
- The scan of a bar code to indicate when a patient arrives and departs a room provides real-time visibility into bed status, minimizing patient wait times and improving bed utilization.

Bar code scanning at patient bedside enables the double and triple checks required to eliminate medication errors, ensure accuracy in specimen processing, capture all appropriate charges, enable accurate meal distribution and provide real-time bed status for better bed management.

- **Dietary management.** When food service workers deliver meals, a quick scan of the bar code label on the food order and the patient wristband ensures that the right patient is about to receive the right meal at the right time. As a result, dietary errors are eliminated. For example, patients that are fasting in preparation for a procedure cannot accidentally receive a meal. And specially prepared allergen-free meals — for example for patients with a gluten, dairy or nut allergy — are always delivered to the right room.

- **Wound management.** Images of existing wounds can be captured, enabling documentation of bedsores that were already present as well as the progressive healing of a wound.

- **Bed management.** When a bar code is associated with a patient room, a quick scan can indicate when a patient arrives or departs. That real-time visibility helps improve the efficiency of bed management, minimizing the wait times for incoming patients and improving bed utilization.

THE MOTOROLA DS6878-HC: BUILT TO MEET THE SPECIAL DEMANDS OF TODAY'S HEALTHCARE ENVIRONMENTS

While there are many bar code scanners available, very few are designed to meet the specific requirements inside a hospital. As an industry leader in healthcare

mobility, Motorola understands this mission critical environment. The DS6878-HC is loaded with the features required to enable robust data capture throughout healthcare facilities, including:

- **The ability to disinfectant both scanner and cradle.** The DS6878-HC scanner and cradle are built to withstand constant disinfecting with the harsh chemical cleaners required to prevent the spread of infection.

- **Compatible with popular Bedside Meds Administration software including Cerner, Eclipsys, Epic, Meditech and Siemens:** Since the DS6878-HC can be used with these commonly-used software packages, deploying the DS6878-HC into a typical hospital workflow is straightforward. Plus the hospital staff is already familiar with the application, so virtually no training is needed.

- **Easy integration with a medical computer or workstation on wheels (COW or WOW).** The DS6878-HC offers maximum mounting flexibility. It can easily be mounted within the confines of virtually any cart, without interfering with the work surface. And when paired with the optional cradle, it supports power over USB, eliminating the need for a separate power supply and the challenge of housing

the cable in the tight confines of the cart.

- **The durability required for dependable everyday use.** The DS6878-HC offers Motorola's best-in-class drop specification — 6 ft./1.8 m drops to concrete. IP43 sealing protects sensitive electronic components from exposure to dust and liquids. The result is dependable operation, despite the inevitable everyday drops, bumps and spills.

- **A cordless design for convenience and safety.** The Bluetooth wireless connection allows healthcare providers to easily navigate as needed around a bed, medical equipment and even other healthcare workers.

- **The right ergonomics.** The DS6878-HC is easy to hold and easy to use. Motorola's award-winning Industrial Design (ID) team created a natural feel for any hand size, providing comfort despite all day use. In addition, omni-directional scanning eliminates the need to precisely align bar code scanner and bar code, ensuring the rapid and accurate bar code capture required in acute care environments.

- **The right data capture capabilities.** The DS6878-HC provides the flexibility required for use in many applications throughout the hospital today, as well as the future proofing required to meet the needs of tomorrow. The scanner can capture the prevalent 1D bar codes in use now as well as emerging 2D bar codes, images, signatures and documents — complete with legible fine print.

- **Mission critical scanning performance.** Bar codes can easily become scratched, smudged or torn as they move through the hospital. Special software allows the DS6878-HC to accurately capture bar codes despite damage, preventing the need and time associated with processing exceptions. In addition, while 2D image-based scanners traditionally deliver performance levels well below that of 1D laser-based scanners, the integration of Motorola's revolutionary SE4500 1D/2D imaging engine ensures laser-quality performance on all 1D and 2D

symbologies.

THE RIGHT FEATURES — AND A FAST RETURN ON INVESTMENT (ROI)

In addition to the features required to enable mission critical data capture in healthcare facilities, the DS6878-HC provides the low total cost of ownership (TCO) and rapid return on investment (ROI) required to easily fit in constrained budgets.

Mission critical support. The stringent durability specifications combine with mission critical support programs to ensure maximum uptime, maximum device utilization and maximum return on asset (ROA). Motorola's Service from the Start Advance Exchange Support is an exceptional service that offers next-business-day replacement of devices that require repair as well as Comprehensive Coverage that includes normal wear and tear as well as accidental damage to internal and external components, significantly reducing unforeseen repair expenses.

Low cost management. The DS6878-HC offers integrated support for Motorola's Remote Scanner Management (RSM), minimizing one of the largest costs associated with any mobility solution — everyday management. RSM enables centralized management of all DS6878-HC devices, substantially reducing the time and cost required to initially provision, update, troubleshoot and account for all your DS6878-HC devices.

All-in-one solution. Since this single device provides the flexibility to capture practically any type of data, there is no need to purchase multiple types of devices. The mobility architecture is simplified. And fewer devices translate into reduced capital and operational costs.

Designed specifically for use in healthcare organizations, the DS6878-HC from Motorola enables hospitals to prevent medication and other medical errors, as well as streamline many everyday processes — from admitting to inventory management. The quality of care and the patient experience are improved — and the hospital is prepared to cost-effectively comply with new industry and government regulations.

ABOUT MOTOROLA ENTERPRISE MOBILITY SOLUTIONS

Every day, organizations of all sizes all over the world count on Motorola Enterprise Mobility Solutions to maximize personnel effectiveness, improve services, and increase revenue potential. When you choose Motorola for your mobility solution, you get the peace of mind that comes with choosing an industry leader as your technology partner. Motorola offers the proven expertise and technology you need to achieve maximum value and a fast return on investment — as well as first hand experience in virtually every size organization in nearly every major industry. And our end-to-end solutions offer the simplicity of a single accountable source, regardless of the number of vendors involved.

Our comprehensive product offering includes: rugged and enterprise class mobile computers and bar code scanners with extensive advanced data capture and wireless communications options; rugged two-way radios for always-on voice communications; wireless infrastructure to connect workers inside and outside the four walls as well as remote locations; comprehensive RFID infrastructure, including fixed, mobile and handheld RFID readers; a partner channel delivering best-in class applications; software solutions that enable centralized and remote management of every aspect of your mobility solution; and a complete range of pre-and post-deployment services to help get and keep your mobility solution up and running at peak performance every day of the year.

For more information on how you can improve patient safety and overall operational efficiency in your healthcare environment with the DS6878-HC, please visit us on the Web at www.motorola.com/ds6878hc or access our global contact directory at www.motorola.com/enterprisemobility/contactus

Sources
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