

Lexmark solution speeds transmission of physician orders to pharmacy, improves nurse productivity and eliminates costly copier lease arrangement.

Lutheran Medical Center assures top-quality patient care with Lexmark solution

The Organization

Founded in 1883, Lutheran Medical Center is a 476-bed primary-care hospital serving the ethnically and economically diverse Bay Ridge, Park Slope, Sunset Park and adjacent communities of Southwest Brooklyn, N.Y. Nurses make up about half of the hospital's staff of 3,200, a key to fulfilling its mission to provide high-quality patient care and services.

The facility handles more than 600,000 outpatient visits and 25,000 acute medical/surgical discharges annually. Lutheran Medical Center relies on the latest computer technology to manage that volume, assure quality patient care and make employees' jobs easier.

Recently, Lutheran focused particular emphasis on the accurate capture, transmittal, storage, retrieval, and analysis of patient data, in part to ensure compliance with federal HIPAA regulations but also to provide staff with immediate access to critical information that's needed to properly care for patients. As a result, the hospital is tackling a number of technology projects to achieve those goals and make it a more appealing choice for patients.

The Challenge

Hospitals rely on some of the world's most advanced – and expensive – technology to deliver world-class life-saving medical services to patients. But when it comes to basic patient care, paper remains indispensable. Whether it's a clipboard containing a patient's medical history, a prescription order written by an attending physician, or the results of an electrocardiogram test, paper is essential.

Lutheran Medical Center, like most hospitals, is awash in paper. Some of it, especially the thousands of prescription orders being sent to the on-site pharmacy each month by fax machines, could be difficult to read and their receipt by the pharmacy could not be confirmed automatically.

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—Steve Art
Senior Vice President and Chief Information Officer
Lutheran Medical Center
Brooklyn, N.Y.
www.lutheranmedicalcenter.com

In an environment where time is of the essence and accuracy crucial, even one wayward prescription could mean a potential delay. At an institution renowned for delivering top-quality patient care, this approach was not acceptable. A better method was needed.



Lutheran Medical Center in Brooklyn, N.Y. uses Lexmark technology to speed up physician orders.

Lutheran Medical Center's IT staff set out to retool the prescription fulfillment process, with the added goals of reducing costs and streamlining one aspect of nurses' daily routine, all while still maintaining its high levels of care.

Compounding the issue, the fax machines installed throughout the Lutheran campus over a period of years were a mix of different makes and models, necessitating the stocking of several types of toner cartridges. And with each device connected to an analog telephone line, anyone could pick up the attached handset and place a call, down the street, across town or around the world.

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In addition, the devices were procured and maintained through a costly lease arrangement that was not ideal for the hospital's budget, and that lease was managed by a separate department.

Finally, with desktop real estate at nurses' stations already at a premium, the fax machines, usually situated adjacent to a networked laser printer, occupied precious space that could be reclaimed for other use. Those printers, also a mix of models, required their own separate inventory of toner cartridges. With many of the printers well beyond a page count of 500,000, the Lutheran Medical Center project team concluded that replacement with smaller, faster, more power-efficient devices should be considered simultaneously.

The Solution

Working with Lexmark's healthcare applications consulting team, Lutheran Medical Center replaced the separate fax machines and printers at each nursing station with a single Lexmark multifunction device that prints, copies, scans and faxes. The primary project goal, the faxing of patient prescription orders to the hospital pharmacy, benefited from a new, simplified procedure that eliminated any potential for misdirection.

“All physician orders are now routed through our network,” said Steve Art, Lutheran Medical's Senior Vice President and Chief Information Officer.

Routing faxes through the hospital's data network is handled by Lexmark's Document Distributor software. The software sends the scanned prescription to the pharmacy's printer, where it's printed on standard paper from the default paper tray. Redesigned patient data labels, generated for years by dot matrix printers and which sometimes did not fax clearly, have eliminated the need for follow-up telephone calls from pharmacists. Termination of fax leasing and service contracts also led to immediate savings.

“We also immediately gained valuable desktop real estate at the nursing stations by removing the fax machines,” said Art. “With the new solution, we were able to install an additional PC at each nursing station.” The installation of the additional PC at each station also had an unintended, but welcome, side benefit: heightened morale as the nursing staff realized the enhancements were made specifically to make their jobs easier.

With the ability to send and receive faxes integrated into the networked multifunction device, the hospital was able to decommission nearly 35 dedicated analog phone lines. The elimination of these lines simultaneously reduced administrative overhead and curtailed the placing of personal telephone calls.

Lutheran Medical Center also implemented a solution that addressed the proliferation of paper forms, a common occurrence in medical institutions and offices of all sizes. Lutheran Medical Center was able to rid itself of dozens of different pre-printed forms, instead merging patient data with stored electronic forms templates at the Lexmark multifunction device.

Commercial forms-printing costs evaporated, supply closet space used to store forms was reclaimed, and time has been saved since medical staffers no longer need to find and then load printer trays with specific forms.

The Results

The replacement of separate fax machines and printers with Lexmark multifunction devices provided Lutheran Medical Center with immediate

tangible and intangible benefits, including time, space and cost savings, workflow and morale improvements and heightened patient care.

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Elimination of leases and shutdown of analog telephone lines led to quantifiable cost avoidance and consolidated all office equipment into the IT departments’ purview. Prescriptions always reach their intended destination and are perfectly legible.

With all Lexmark devices using the same toner cartridge, only a very small inventory of supply items needs to be kept on site. No longer are thousands of dollars tied up in inventory of different cartridges, sometimes for devices the hospital no longer owned.

The hospital’s nursing staff is perhaps the most delighted beneficiary. Knowing that Lutheran Medical’s IT staff is devising solutions specifically for them, pride is on the rise. A new sense of inclusion is evident, even driving the nursing staff to proactively propose new projects.

“We’ve changed the way nursing looks at technology,” said Art. “The idea that we’ve been able to introduce technology into areas of the hospital that never had it before and to get the employees to actively use it, has been eye-opening to the nursing staff.”

With the successful pharmacy project completed, those same Lexmark multifunction devices may soon be serving other purposes. Lutheran Medical Center is considering scanning electrocardiogram strips into a document repository, where they will be stored in digital form, ready for instant retrieval in the emergency room. And obstetrics records, scanned and electronically cataloged by patient, will be retrievable instantaneously, in the event of an impending delivery days or weeks ahead of schedule.

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