

# Case Study

**McKESSON**

Empowering Healthcare



Atlantic Health is a leading provider of stroke, cancer and cardiac care. Its flagship hospital, Morristown Memorial, is Magnet™-designated for excellence in nursing services and houses New Jersey's only regional trauma center.

Overlook Hospital is home to the pioneering Atlantic Neuroscience Institute, New Jersey's first comprehensive stroke center. In addition to a children's hospital, cardiovascular center and cancer center, the health system includes a host of support services and residency programs.

## Atlantic Health Creates a Fully Integrated Electronic Health Record with Advanced Technologies

Atlantic Health is the largest health system in northern New Jersey and a leading provider of stroke, cancer and cardiac care. Throughout its 100-year history, Atlantic Health has been among the first to offer groundbreaking technologies, such as CyberKnife – a robotic radiosurgery system for nonoperative cancers – and the Merci Retrieval System™ to remove blood clots from stroke patients. Innovation is a differentiator and helps attract patients from the surrounding area and New York City.

However, Atlantic Health had focused for years on an IT infrastructure that mostly supported its admission, discharge, transfer (ADT) and financial processes, and different solutions were in place from hospital to hospital. To meet its enterprisewide mission to deliver high-quality, safe and affordable healthcare, Atlantic Health partnered with McKesson to implement a broad range of systems, including an electronic health record (EHR) solution. With the new systems in place, Atlantic Health has not only connected and standardized care across its system, but also improved patient safety, reduced costs and enhanced its revenue stream.

### Challenges

When Linda Reed, RN, MBA, became the chief information officer in 2004, she quickly identified gaps in Atlantic Health's clinical application infrastructure.

"We needed to significantly expand our clinical offering to support the higher level of care our patients expect and to enable us to remain competitive," notes Reed. "And while our patient safety record was good, we wanted to do more."

Objectives included creating an integrated EHR for every patient, with patient information accessible to authorized caregivers anytime, anywhere. The organization also wanted to standardize clinical processes, provide caregivers with clinical decision support, and better measure and enhance patient outcomes.

Atlantic Health created its first application-based strategic plan, with medication and patient safety improvement topping the list.

"Our No. 1 goal is patient safety," says Trish O'Keefe, RN, chief nursing officer, Morristown Memorial. "We focused on performance and process improvement to improve quality, reduce the potential for adverse drug events, and enhance patient care."

## At a Glance

### Organization

Atlantic Health  
Morristown, N.J.

- Health system with eight major facilities including Morristown Memorial Hospital, Overlook Hospital and Goryeb Children's Hospital
- 1,197 licensed beds
- 63,000 inpatient visits
- 148,000 emergency visits
- 580,000 outpatient visits

### Solution Spotlight

- Horizon Admin-Rx™
- Horizon Business Insight™
- Horizon Clinicals®
- Horizon Expert Orders™
- Horizon Meds Manager™
- Horizon<sup>WP</sup> Physician Portal
- Pathways Contract Management™
- PatientCompass™
- Practice Partner®
- RelayHealth® secure online communication service
- ROBOT-RX®
- STAR™ Patient Accounting

## Answers

For more than 15 years, Atlantic Health and McKesson have enjoyed a unique relationship. The health system has been a McKesson beta partner and an early adopter of multiple McKesson products. It has helped design, build, test and implement key business and financial solutions.

So when it launched its aggressive clinical and medication safety initiative, Atlantic Health turned to McKesson for a powerful solution set including Horizon Clinicals® and capabilities from McKesson Automation for nursing documentation, computerized provider order entry (CPOE), medication administration, clinical alerts, pharmacy robotics, and more. Although the full technology rollout won't be complete for another two years, positive changes are already apparent.

For example, the integration of Horizon Expert Orders™, McKesson's CPOE solution, with the pharmacy has reduced medication processing time. The CPOE system helps physicians follow best practices when selecting therapies and doses, while the pharmacy system supports pharmacists' ability to provide appropriate medication therapies for patients. Clinical alerts proactively notify physicians of patients whose clinical condition changes. A pharmacy order imaging system has accelerated retrieval of scanned physician orders and improved prioritization of STAT orders. And, pharmacy system integration with the electronic medication administration record has eliminated repetitive and

error-prone transcription practices — saving nurses valuable time now spent caring for patients

CPOE also has improved access to patient clinical data and decision support tools — one of Atlantic Health's key goals. Order sets are in place and evidence-based clinical protocols are being developed to promote best practices, expedite order entry and enable clinicians to more easily follow safe medication practices, including weight-based dosing formulas for pediatric patients.

Care at the bedside is safer and better. McKesson's nursing documentation system with automated triggers helps nurses meet regulatory requirements for assessing pain, fall risk, skin breakdown and more. Nurses also use a point-of-care system to electronically scan bar-coded wristbands and medications, helping to ensure "five rights" checking before patients receive medications.

"McKesson's medication administration solution has improved our care environment," says O'Keefe. "Every inpatient unit has embraced it, and nurses feel it has made a marked change in their practice. Our patients welcomed it, too. It's tangible evidence of our commitment to safety."

In addition, O'Keefe credits technology such as Horizon Business Insight™, which provides real-time performance improvement analytics and feedback, with playing a key role in Morristown Memorial achieving Magnet™ designation.

Using data provided in the system's executive dashboards, managers can continuously monitor where they stand or need to improve.

To connect with its physician community, cut costs and ultimately create EHRs shared across both the inpatient and outpatient settings, Atlantic Health deployed Practice Partner®, McKesson's ambulatory EHR, and the financial and clinical interactive services of RelayHealth®. To date 500 physicians have signed on to RelayHealth.

"We offer RelayHealth to physicians as a tool to enhance patient care," says Reed. "Some are skeptical at first, but when they see how it can transform their office, improve patient communication and reduce costs by moving everything online, they welcome it."

Patients love RelayHealth because they can communicate with their physicians at their convenience, receive lab results and referrals online, and renew medications easily. Ten thousand patients are now registered users. The program has been a key consumer marketing effort as well, with a section of the company's Web site featuring RelayHealth access.

Reed believes RelayHealth is the perfect catalyst to create anywhere, anytime information access for both patients and physicians. "Eventually, everyone will have a personal portal with e-bank, e-shop and e-health components. We want to be a dot on that portal."

Atlantic Health has experienced financial improvements as well.

With solutions such as patient accounting, contract management and RelayHealth's Web-based account management service that enables online transactions, the health system works more efficiently and improves revenue cycle management.

Future plans include implementation of Horizon Enterprise Revenue Management™, which will streamline workflow while enabling informed decision making, automated necessity checking and coordination of care.

"We expect the system to help us automate many of the manual financial processes that currently exist," explains Nancy Kaminski, director of patient financial services. "We'll also have a single database tied with Horizon Clinicals®, which will tighten the revenue cycle so we collect every dollar we're entitled to collect."

The patient experience will be enhanced with Web-based registration, e-statements and online account management.

Atlantic Health also maintains provider and facility information through McKesson's call center application. Call center representatives can seamlessly research information for prospective patients, including medical specialty, education, office location, board certification, hospital affiliation and insurance plans. In keeping with Safe Harbor laws, a random listing of providers is rotated after referral activity. A Web solution offers patients a class and screening registration service, with detailed information

## At a Glance

### Critical Issues

- Lack of systemwide application infrastructure
- Patient safety
- Lack of connectivity and communication across the care continuum
- Caregiver satisfaction
- Inability to measure and affect outcomes
- Inability to track patient interest in services

### Results

- Reduced medication error rate to less than 1% (CPOE live units)
- Achieved 95% medication administration scan rate
- Reduced medication processing time by 40%
- Connected 500 physicians on the RelayHealth network
- Provided 10,000 patients financial and clinical interactive services through Atlantic Health's virtual information exchange powered by RelayHealth
- Decreased days in A/R to 39
- Enhanced ability to track marketing outreach and monitor physician search trends

**“From everyone’s perspective, our long relationship with McKesson has been terrific ... It’s a partnership all about improving patient care.”**

**Linda Reed, RN, MBA**  
*Vice President/  
Chief Information Officer  
Atlantic Health*

on programs such as hospital services, health screenings, and health education seminars. Detailed reports enable hospital management to assess and improve demand for services.

Future plans also include deploying an enterprise visibility system to improve day-to-day hospital efficiency and manage patient throughput. Using large, electronic “whiteboards,” the system will display data from clinical, ADT, environmental services, transporter and other systems against the hospital’s floor plan, enabling caregivers and managers to respond more quickly and adjust as needed.

### Results

Implementation of McKesson technologies has helped Atlantic Health become more competitive, improve medication safety through a closed-loop process, reduce costs and enhance revenue efficiencies — all while streamlining the patient experience and increasing safety across the continuum of care. Results include:

- For each patient care unit live on bar-code scanning, nearly 95% of medications are now scanned before administration to patients
- In areas where CPOE is live, the medication error rate is less than 1% per month. Residents use the technology to enter 90% of their orders

- The combination of CPOE, an enterprise pharmacy system and automated central dispensing have reduced medication processing time during peak usage by an average of 40%
- More than 60% of Atlantic Health’s physicians use McKesson’s physician portal, a Web gateway that provides secure access to important inpatient and outpatient data from across the health system
- Physicians say CPOE helps them enter orders more efficiently 80% of the time
- 500 physicians and 10,000 patients are connected for clinical and financial interactivity through Atlantic Health’s virtual information exchange powered by RelayHealth
- Days in accounts receivable (A/R) have been reduced to 39

“From everyone’s perspective, our long relationship with McKesson has been terrific,” Reed says. “There’s open communication, a willingness to hear what’s of concern, and we both work hard to drive that change together. It’s a partnership all about improving patient care.”

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