

# OnBase®

a Hyland Software solution



## The Power of Enterprise Content Management:

Delivering the Complete EHR across the Hospital



**North York  
General Hospital**

*Embracing Health*

## NYGH serves 400,000 residents in north central Toronto and southern York region

- One of Canada's leading community teaching hospitals
- Affiliated with the University of Toronto
- 400-bed acute-care hospital, several clinics and a senior health center
- 3,100 staff, 900 physicians
- 110,000 emergency visits, 200,000 outpatient visits and 28,000 inpatient cases annually
- 2007 kick-off of eCare, a multi-year hospital-wide clinical transformation project using health IT that combines the EMR, standardization on evidence-based care, safe prescribing and medication administration, and clinical decision support

## The Power of Enterprise Content Management: Delivering the Complete EHR across the Hospital

North York General Hospital (NYGH), one of three hospitals in Canada to achieve Stage 6 of the HIMSS Electronic Medical Record (EMR) Adoption Model, is not resting on its laurels. The Hospital is striving to attain Stage 7 and operate in a paperless environment. Deployment of healthcare IT has been instrumental not only in achieving this goal, but also in providing exceptional patient-centered care.

The journey to Stage 6 began with its implementation of the Cerner Millennium PowerChart EMR and was accelerated by its multi-year, multi-phase hospital-wide clinical transformation project, eCare. "NYGH is recognized as a leader within the Canadian hospital landscape in using innovation and healthcare IT to improve patient safety, quality of care and patient outcomes," said Akeela Jamal, manager of health records. "Despite this milestone, we recognized that there was still a gap in our EMR: There was still plenty of paper, and we wanted a system to bridge that gap."

## Bridging the Gap with Enterprise Content Management

NYGH determined that scanning paper documents would not only bridge the gap to a complete EMR, but also address immediate concerns regarding timely access to charts. Previously, only one provider at a time could access the paper portion of the chart, delaying coding, risk management, research and quality audits. In Canada, government funding to providers is directly tied to patient wait times in the emergency department (ED). A delay in chart availability to ED physicians increases patient wait times, which negatively impacts the hospital's performance on Balance Score Card indicators and pay-for-performance indicators, according to Jamal. Allowing immediate access to providers increased efficiency and greatly reduced patient wait times.

Hyland Software's OnBase solution demonstrated its ability to seamlessly integrate with the PowerChart EMR, meeting NYGH's requirement to scan documents from the ED into the EMR. Upon the project discovery phase, Hyland and NYGH decided to expand the initial scope to include all types of health records in the first phase of deployment, which was another reason Hyland was selected. The search for a scanning solution therefore evolved into the selection of an enterprise content management (ECM) system. Implementing OnBase took less than six months from design to go-live.

## Strategic Planning Ensures Successful Implementation



**Eric Huang**  
Application Consultant,  
Clinical Informatics  
North York  
General Hospital

Prior to vendor selection, NYGH researched scanning and barcoding to gain a basic understanding of the process. "The design phase is an extremely important component for any system's implementation," said Eric Huang, application consultant in clinical informatics at NYGH. One barcode identified the type of form. To fully automate the scanning process, a second barcode – a patient demographic label –

was needed for the system to identify patients. While NYGH previously used addressograph cards, the imprints were often illegible, the technology cumbersome and outdated. Huang and his team designed a label that could be used enterprise wide while leveraging the hospital's existing suite of printers and managed print service agreements. Jamal recommends that healthcare organizations start the barcode process early and enforce usage of the standard hospital template for barcoded forms by all units to ensure successful adoption.

The next phase was designing the "look and feel" of the scanned documents within Cerner Millennium PowerChart. After a complete inventory review of existing forms and documents and a consultation with stakeholders and physicians, Huang's team created a look that complemented the existing view and would be intuitive for clinicians. NYGH added a tab within the EMR that housed all scanned images.

## Rolling Out a Well-Oiled Implementation Strategy

The previous process required NYGH's clinics to send their records to the health information management (HIM) department, many of which were not doing so. After seeing the progress in barcoding and forms, however, these same clinics expressed interest in having their records scanned. NYGH devised a three-phase implementation strategy. Phase 1 – ED, day surgery, inpatient and select clinics – went live in October 2011. Remaining clinics went live in Phase 2 in April 2012. October 2012 is the scheduled Phase 3 go-live date for mental health.

A few weeks before the go-live dates, all hospital staff received communication and announcements in various media – including e-mail blasts, screensavers and intranet clips. Project managers held change-management workshops and meetings for HIM clerical staff and others directly impacted by the new system. IT staff conducted presentations to physician groups, nurse managers and leadership. Huang's team fielded and addressed questions and concerns that arose from the meetings. Soliciting input from and engaging all stakeholders, especially around workflow changes, is a critical and necessary step to get buy-in from staff, Jamal emphasized.

System administration training was comprehensive. Three OnBase super-users identified from three areas of expertise – IT, HIM and clinical informatics (CI) – attended onsite training at Hyland in Westlake, Ohio. Jamal stressed the importance of selecting super-users who are already trusted by staff. Health records staff received one week of onsite training, additional training from the super-users and formal assessments to ensure staff confidence. The system was designed to be seamless and intuitive. Over a two-week period, clinical staff attended in-service sessions and had access to a computer-based training module posted on the hospital intranet along with a one-page “How To” document posted on each unit.

## Streamlining the Workflow, Improving User Experience

NYGH also made adjustments to streamline workflow processes. Originally, the paper chart triggered physicians to complete their chart. Without that trigger, the new process became a “pull” – coaxing physicians to complete tasks – instead of a “push” – physicians taking on the responsibility of completing the charts – and therefore, there was a lot less compliance, according to Jamal. One lesson learned from this discovery is the requirement to engage the chiefs of staff throughout the process and to understand all workflow changes to physicians prior to going live.

The seamless integration of OnBase with Cerner Millennium PowerChart was critical to ensuring a smooth user experience, which also drove clinician adoption. When users double-click on a document in a flowsheet and immediately view a second window with the scanned image via OnBase's DocPop functionality, they aren't even aware that they have accessed a different system. “This is exactly what we envisioned when we first embarked on our scanning journey,” Jamal said.

The accommodation of different forms and formats – odd-sized and multi-page documents – preserved the original document's integrity to ensure that clinicians have access to accurate data in order to make sound clinical decisions. Versioning functionality with OnBase supports the times when clinicians need immediate access to certain documents by making preliminary scans immediately available online. The final copy or revision automatically replaces the preliminary copy when it is scanned at a later time and is displayed immediately in PowerChart.

NYGH worked with Hyland to create a custom script that ensures security of patient information by preventing multiple windows from opening up and mimics a native Cerner functionality that restricts the viewing of documents to only one patient at a time. OnBase's additional security features include automatic time-out and audit trails to support compliance with Canada's privacy and legal requirements.

Another feature allows end-users to report misfiles or errors directly from the document upon viewing it. NYGH identified and trained two super-users in HIM to resolve these issues. Since go-live, NYGH's error rate was decreased to less than 1 percent, an industry-acceptable rate. The hospital maintains and reviews a detailed error log to follow up on any issues and minimize errors in the future.



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**Akeela Jamal**  
Manager of  
Health Records  
North York  
General Hospital

## Documenting ROI from ECM

NYGH conducted a post-implementation evaluation of its OnBase ECM solution. Since go-live, NYGH saw gains in productivity and decreases in manual tasks, chart requests, staff and filing space (Figure 1). Coders now access records one day after chart pick-up, a decrease from three days with paper charts, which enables the more timely submission of completed coded data. In addition to the ED, inpatient and day surgery, more than 25 clinics are now scanning their charts and using the barcode form. Since go-live, NYGH has scanned more than 1 million pages.

Additionally, OnBase helped improve the turnaround times of chart access. For the ED, charts are available online within six to eight hours of the patient visit. Once charts are picked up, the turnaround times for charts for inpatient patients is 24 hours and charts for clinics is 48 hours. "We have met our goals," said Jamal. In the ED, charts are turned around well beyond the department's internal standard.

### Since go-live, NYGH saw gains in productivity and decreases in manual tasks, chart requests, staff and filing space:

- **20% increase** in pages scanned
- **40% reduction** in manual indexing
- **20% reduction** in chart requests to HIM
- **17% improvement** in efficiency
- **25% reduction** in filing space

Figure 1

*Although NYGH anticipated using scanning to augment its EMR, the hospital now recognizes the value of OnBase ECM in all departments across the enterprise.*

## Future Plans: Attaining Stage 7

NYGH plans to expand OnBase's reach to its genetics department for record archival and non-clinical areas that produce high volumes of paper, such as finance, human resources and procurement. Scanned documents are ideal for departments required to retain documents for long periods of time, such as information services, which handle user confidentiality forms, Jamal pointed out.

Although NYGH anticipated using scanning to augment its EMR, the hospital now recognizes the value of OnBase ECM in all departments across the enterprise. NYGH's eCare project continues at full force with the goal of becoming fully electronic, according to Jamal. When NYGH eventually moves to point-of-care scanning, this capability will help the hospital attain the coveted HIMSS Stage 7.

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### About the Hyland Software solution, OnBase

One of the largest independent software vendors in the world of enterprise content management (ECM). Hyland Software is the developer of OnBase. An award-winning suite of document management and content management solutions. OnBase has a proven record of solving problems resulting from time consuming, costly and error plagued manual tasks. Today, people at more than 10,000 organizations both large and small in 67 countries have the time to do the things that really add value thanks to OnBase. Available on-premises or as software as a service (SaaS), OnBase installs quickly, cost effectively and is designed to grow with organizations. For more information, visit [www.Hyland.com/Healthcare](http://www.Hyland.com/Healthcare) or call **1-888-495-2638** to set up an appointment.