



# Rapid access to patient information in EMRs

## Orion Health Case Study

In 2013, eHealth Ontario and OntarioMD implemented Orion Health™ Rhapsody® Integration Engine to roll out the Hospital Report Manager (HRM), an electronic application that enables primary care clinicians and specialists to securely receive patient reports from participating healthcare facilities. HRM offers seamless integration with OntarioMD-certified electronic medical records (EMRs).

In less than two years, HRM has been a significant driver for Ontario's 85% EMR adoption rate among Ontario community-based family physicians. HRM has helped stem the barrage of paper reports from multiple sending facilities, has reduced paperwork processing and has further encouraged the move to a digital solution that is securely accessible by clinicians across the province. Since its launch, the program's achievements have grown exponentially and have garnered the following results to date:

- Over 190,000 clinical reports per month going to clinician EMRs
- Over 1 million reports sent
- 2,900 clinicians use HRM through their EMRs
- 74 sending locations live on HRM

Currently, HRM is growing at a new user rate of around 500 physicians per quarter and is available in LHINs 1 to 13.

## OntarioMD

The development of OntarioMD's HRM system has opened the door to a variety of future features which can further enhance patient care and information delivery. In April 2014, OntarioMD used HRM, powered by Orion's Rhapsody Integration Engine, to pilot the first add-on feature to HRM: eNotifications – a faster, enhanced notification system which notifies family physicians when a patient has been discharged from the Emergency Department or has become admitted or discharged as an inpatient.

The pilot was done in partnership with Toronto East General Hospital (TEGH), the Ontario Association of Community Care Access Centres (OACCAC) and OntarioMD.

"With the introduction of HRM and eNotifications, our Family Health Team received real time notification from our hospital when patients were seen in the emergency room, or admitted at TEGH. This allowed all clinicians to know the next morning if the reason for the hospital visit was a minor concern dealt with by the hospital, or was more complex and warranted follow-up by the family physician to ensure that our patient was improving," reports Dr. Thuy-Nga Pham,

South East Toronto Family Health Team Physician Lead.

Healthcare delivery, particularly for complex patients, requires communication and coordinated care that can traverse multiple departments and providers. Despite the push for providers to deliver more in terms of continuity of care, often times they don't have access to patient information quickly enough to enable this.

"Physicians were reporting that they would have patients arrive for a follow-up consultation after being dismissed from the ER, but the physician wasn't even aware there had even been an admission in the first place," explained Kathy Tudor, Director of Communications & Marketing, OntarioMD.

Through clinician feedback and needs identified through Health Links, OntarioMD sought to streamline workflow and further improve communications between the hospital and physician during a patient's hospital journey in order to enable faster follow-up. East Toronto Health Link (ETHeL), TEGH, OntarioMD and the Ontario Association of Community Care Access Centres (OACCAC) began working towards implementing an electronic notification system for more direct, efficient alerts.

### **Simplifying the development process**

As with the creation of the HRM system, Orion Health Rhapsody Integration Engine played a pivotal role in developing an eNotification feature that seamlessly worked with HRM. Launching the pilot in April 2014, eNotifications was rolled out through the HRM and CHRIS system in

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*"The Rhapsody Integration Development Environment (IDE) has been able to shave off a lot of the development time. Orion Health is so ingrained in the Canadian healthcare industry that they have a deep understanding of our desired workflow and can manoeuvre around a lot of the pains that integration systems go through when trying to combine health systems"*

**Elizabeth Keller**  
**Vice-President, Product Management & Operations, OntarioMD**

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Toronto East General Hospital (TEGH).

The development of eNotifications presented a new set of challenges as it is a unique style of messaging, different from the traditional medical records and diagnostic imaging reports that the HRM system was originally designed for. Despite these hurdles, the intuitive system architecture and the scalability of Rhapsody allowed for easier implementation of this new feature.

In order to be able to use HRM, clinicians must already be using an OntarioMD-certified EMR at the latest Specification. The eNotification solution can then be connected providing that clinicians have the HRM system already in place and are connected to OACCAC's Client Health and Related Information System (CHRIS).

On the sending facility's end, it takes about three months for a standard HRM implementation from the technical sign-off to go-live and it takes an additional two to three months for eNotifications. On the clinician end, implementation of both HRM (which includes eNotifications) takes approximately 10 weeks. There is also additional time required for the initial engagement efforts leading up to implementation. However, as further experience is gained from the installation process, times will further vary. Upon installations from both ends, there is a normalization period of close monitoring immediately post go-live for about four weeks.

With Rhapsody, eNotifications are processed and transmitted in the following way:

- Hospital registration system generates specific ADT HL7 messages based on registration or discharge events
- The HL7 message is sent to the OACCAC's CHRIS system
- CHRIS determines if the patient is a CCAC or Health Links patient and automatically populates the report with CCAC information
- A notification report is generated on behalf of the

hospital and is delivered to the EMR via HRM

### Some impressive results

eNotifications have been sent from TEGH to primary care providers since going live, and over 400 clinicians using HRM have received eNotifications.

The eNotification add-on to HRM has demonstrated significant benefits:

- Near-real time alerts sent to the physician's office
- 100% of notifications were reviewed by the family physician within 7 days and a follow-up action determined
- 57% of these notifications were for complex patients
- Increased timeliness in patient information dissemination
- Seamless integration, with not a single clinician requiring additional training for its use

eNotifications has raised the bar in what Canadian care providers should expect in terms of how technology can enable effective coordinated care. According to Senior Vice President of Orion Health Canada, Gary Folker, "It has proven that proper system architecture produced with the Rhapsody Integration Engine can put control of critical patient information carefully in the hands of the providers. This ensures patients receive 'the right care, at the right time and in the right place.'"

Through the eNotifications pilot, it was found that doctors were empowered with the information necessary before patients arrived for their appointments. It potentially also reduced the need for hospital admissions by speeding up and enhancing the quality of care during the appointments. The results have demonstrated that having data pushed directly to the physician's inbox, rather than having them source the information themselves, has greatly improved the physician's active engagement in follow-up care. Having the program seamlessly integrated into their automated workflow ensured that patient events were seen in a timely

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*"It helps with the quality of care for patients because in cases where the hospital is unable to reach the physician, they can now receive a notification that alerts them when one of their patients has been admitted to a hospital far away. It allows the physician to be proactive - giving them the opportunity to connect with the hospital on their patient's care - rather than be reactive to the situation"*

**Elizabeth Keller**  
**Vice-President, Product Management & Operations, OntarioMD**

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fashion.

Additional benefits include:

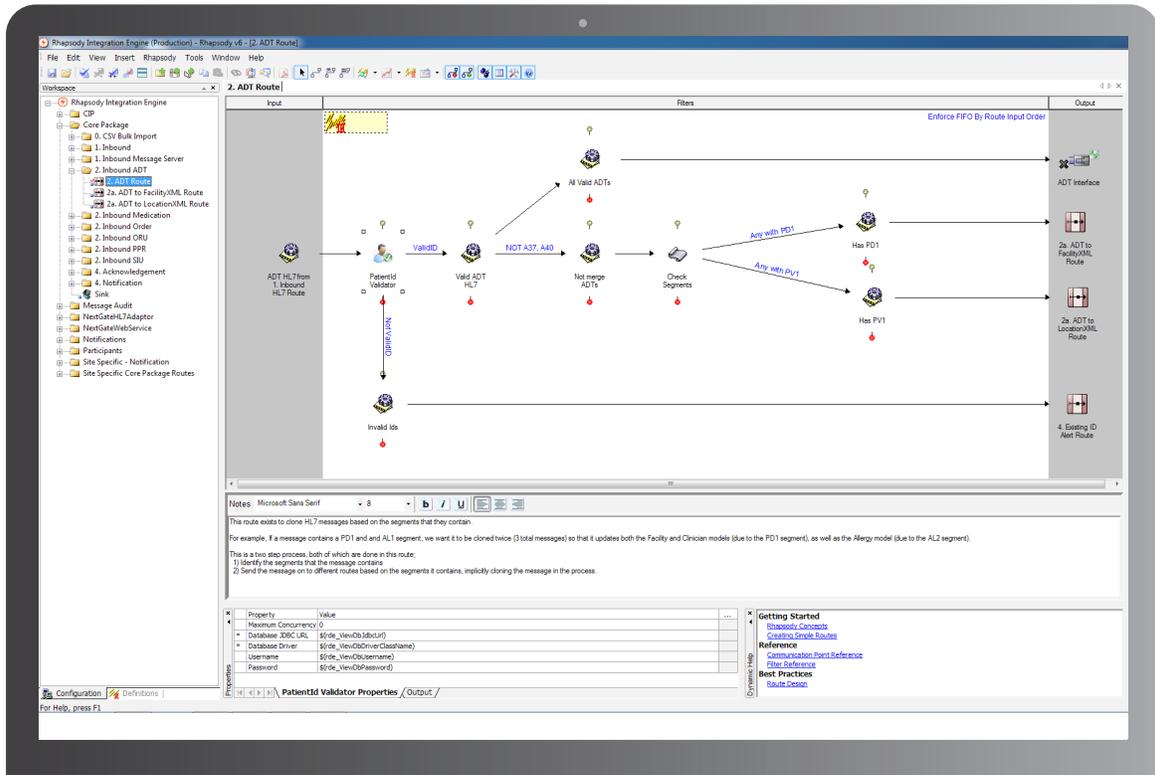
- Cost savings and minimal development needed by its use of already existing assets (ADT, eHealth Ontario's Managed Private Network, HRM, CHRIS)
- No issues with ongoing support
- Installation process is relatively simple with minimal coding compared to other integration engines

### Expanding to more hospitals

OntarioMD has now partnered directly with the Ministry of Health and Long-Term Care (MOHLTC) and has received approval from MOHLTC for expansion of eNotifications through CHRIS and HRM. eNotifications will begin rolling out to other hospitals within the province across several LHINs.

Users of HRM are able to offer clinician input on the usability, deployment and future enhancements of the system. As such, HRM is looking towards Ontario Telemedicine Network (OTN) Telehomecare reports as being the next piece in its goal to provide Ontario care providers timely, secure and easy access to the information essential in coordinated care.

# Rhapsody Integration Engine powers rapid access to patient information in EMRs



## Intelligent Integration

All patient information shown in any imagery is for representation and demonstration purposes only and is not related to a real patient.

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