

The Emergency Department Return Visit Quality Program:

Report on the 2017 results

**Health Quality
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The Emergency Department Return Visit Quality Program

Report on the 2017 results

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Introduction

A culture of quality is integral to achieving a quality health system that is safe, effective, patient-centred, timely, efficient, and equitable. It is fuelled by continuous learning and reflection by both those who provide and receive care. It involves learning from both successes and failures, and supporting the inherent drive of health care providers to provide the best care they can for patients.

The Emergency Department (ED) Return Visit Quality Program aims to foster a culture of quality in Ontario's EDs. In this program, participants conduct audits to investigate return visits involving their site, identify any quality issues or adverse events (AEs) that may be present, and take steps to address their underlying causes.

2017 was the second year of the ED Return Visit Quality Program, and the results that participating hospitals submitted in January 2018 show a continued dedication to using this program to improve quality of care. This report will summarize key observations and highlights of these submissions in order to celebrate the quality improvement work being accomplished and to share learnings among program participants.

About the ED Return Visit Quality Program

The ED Return Visit Quality Program is mandatory for hospitals participating in the Pay-for-Results (P4R) Program, and optional for other hospitals in the province.

In this program, participants are provided with data reports flagging cases involving return visits resulting in admission to hospital, and are asked to audit a set number of cases in order to identify potential quality issues/AEs (see sidebar for definitions and requirements).

At the end of January each year, participating hospitals submit the results of their audits as well as a completed narrative template in which they provide free-text responses to a series of questions about the program.

The program has been guided by an expert working group of system leaders, quality improvement specialists and ED providers involved in all stages of design of the program (listed in Appendix A).

Definitions of return visits

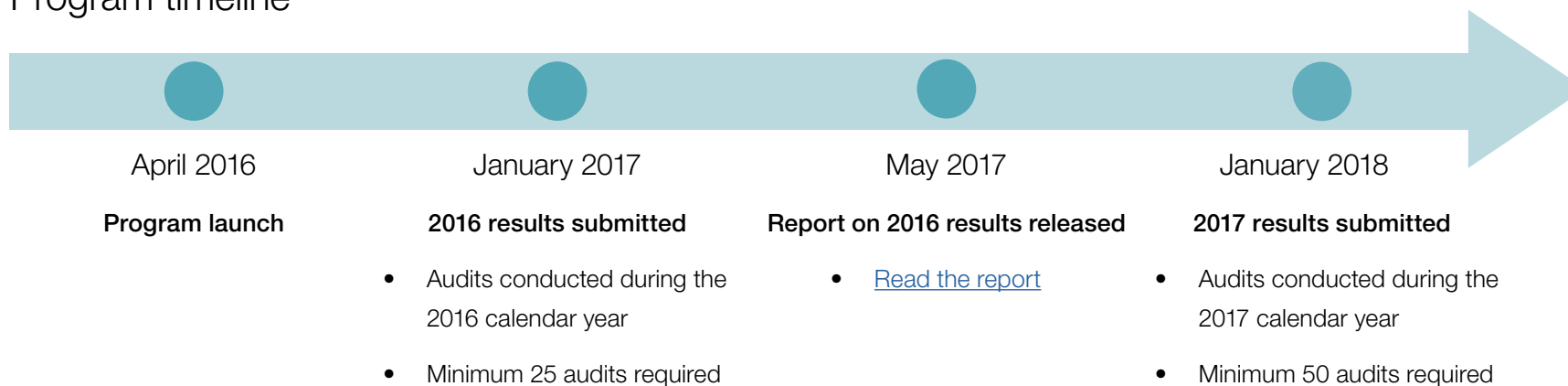
In the ED Return Visit Quality Program, participating hospitals receive data reports that flag two types of return visits:

1. Return visits within 72 hours for any diagnosis resulting in admission to any hospital (termed all-cause 72-hour return visits)
2. Return visits within 7 days resulting in admission to any hospital with one of three key 'sentinel diagnoses' (acute myocardial infarction [AMI], paediatric sepsis, and subarachnoid hemorrhage) on the return visit, paired with a set of related diagnoses on the initial visit.

Number of audits required

Participants are required to audit all of the return visits involving sentinel diagnoses occurring at their site, then audit all-cause 72-hour return visits until they meet a minimum of 50 cases audited per site.

Program timeline



Report outline

Program implementation

This section summarizes how hospitals have implemented the program.

Quality improvement initiatives arising from the program

This section summarizes our observations from reading the narrative submissions, where participants described quality improvement initiatives that they had implemented as a result of this program. We also reached out to interview several organizations that had shared success stories in their narratives.

Investigation of themes among quality issues/AEs

This section summarizes our investigation of certain audits to identify any additional themes among the quality issues/AEs identified. This investigation focused largely on return visits involving the three sentinel diagnoses.

Program participation

A total of 82 hospitals submitted results for 2017 (73 P4R hospitals and nine non-P4R hospitals).

A total of 84% of all ED visits in Ontario occur to these sites.

For more information...

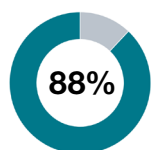
Review the guidance material and resources posted on the ED Return Visit Quality Program website:

www.hqontario.ca/ED-Return-Visit

Program implementation

This section summarizes how hospitals have implemented the program, as reported in their narrative submissions.

Conducting the audits

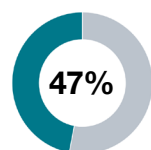


88% of hospitals indicated that the completed audits were conducted by more than one provider

The majority of hospitals mentioned involving multiple professions/disciplines:

- 76% involved multiple physicians
- 69% involved nursing staff
- 42% involved management/leadership
- 22% involved their quality department
- 15% involved other professionals (e.g., physician assistants, nurse practitioners, pharmacists, occupational therapists, social workers)
- 10% involved other departments (e.g., diagnostic imaging, internal medicine)

Selecting cases to audit



47% of hospitals selected cases to audit in a targeted manner; 53% selected cases randomly

Participants that selected cases in a targeted manner reported that they focused on:

- Specific diagnoses of interest (e.g., chronic heart failure, chronic obstructive pulmonary disease) or patient populations (e.g., elderly patients, paediatric patients)

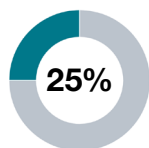
Collaborating to complete the audits

Many organizations described involving multiple people in conducting the audits and identifying opportunities for improvement. Often, organizations described holding regular meetings to collaborate on this work as a group.

This approach can promote a culture of quality by encouraging reflection, collaboration and learning among those who are participating. Involving multiple people can also result in gathering ideas for improvement from a range of perspectives, and help build commitment when working on quality improvement initiatives.

- Diagnoses that were most common among their return visits
- Cases in which learning opportunities appeared likely (or participants excluded cases that were likely planned return visits or associated with progression of disease)
- Cases in which patients appeared to be more seriously ill on the return visit, such as those who:
 - had a triage category of Canadian Triage and Acuity Scale (CTAS) level 1
 - went to the operating room
 - were admitted to the intensive care unit
 - died in the ED
 - died within 48 h in hospital
 - had a life-threatening diagnosis

Collaborating with other organizations



of hospitals reported that they collaborated with other hospitals or organizations when completing or reviewing their audits

Typically, these collaborations involved:

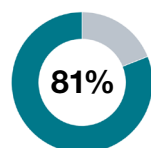
- Sharing learnings among multiple ED sites within one organization
- Reviewing cases returning to other hospitals for cases in which they have an electronic medical record access agreement for quality improvement initiatives in place
- Collaborating with other organizations (such as cardiac care clinics or local health integration network [LHIN] home and community care services) to work on quality improvement initiatives related to access to follow-up care outside the ED

A few organizations mentioned that they would appreciate the opportunity for more collaboration among hospitals, and at least one LHIN is facilitating discussions among hospitals about this program.

Quality improvement initiatives arising from the program

This section summarizes our observations from reading the narrative submissions, where participants described quality improvement initiatives that they had implemented as a result of this program.

We also reached out to interview several organizations that had shared their quality improvement achievements in their narratives.



of hospitals indicated that they have implemented at least one quality improvement initiative as a result of this program

Themes addressed through the quality improvement initiatives

The 2016 report identified 11 themes among the quality issues/AEs (Appendix B). We analyzed the quality improvement initiatives described in the narratives to identify which of these 11 themes were most commonly addressed. The five most common themes and examples of initiatives to address each theme are presented in Table 1.

A significant proportion of the quality improvement initiatives were related to return visits for AMIs. These initiatives are described in more detail on page 12.

Some of the quality improvement initiatives described likely did not arise because of the ED Return Visit Quality Program – rather, participants recognized that initiatives they were already working on would help to address certain themes they observed through their audits. Examples include upgrades to health information systems, adding capacity by adding staff or shifts, and initiatives to improve patient flow in the ED.

Table 1. The five most common themes addressed through the quality improvement initiatives described in the narrative submissions

Theme	Example(s) of quality improvement initiatives
Discharge planning and community follow-up	Improving discharge instructions <ul style="list-style-type: none"> Creating standardized discharge instructions for specific diseases Leveraging health information systems to facilitate the preparation of discharge instructions
	Improving discharge planning, care coordination, and connection with care in the community <ul style="list-style-type: none"> Working with staff (e.g., allied health) and external organizations (e.g., LHIN home and community care services, Health Links) to ensure patients have the necessary supports on discharge
	Improving referral processes for follow-up testing for cardiac patients <ul style="list-style-type: none"> Collaborating with cardiology clinics to optimize referral process and ensure patients are seen in a timely manner Developing requisition forms to facilitate urgent follow-up testing
Lack of availability of diagnostic imaging or other tests	Increasing access to diagnostic imaging or interpretation after hours (or lobbying to increase access)
	Reducing wait times for patients who are returning for diagnostic imaging <ul style="list-style-type: none"> Clarifying processes for access to after-hours imaging with the diagnostic imaging department
Care for elderly patients	Implementing protocols specific to the care of elderly patients <ul style="list-style-type: none"> Requirements for walk tests or assessment of vital signs before discharge of elderly patients Adjustments of medical directives specifically for elderly patients
	Improving discharge planning for elderly patients <ul style="list-style-type: none"> Involving a multidisciplinary team in discharge planning
Patients who left against medical advice or left without being seen	Improving patient flow or time to physician initial assessment <ul style="list-style-type: none"> Increasing capacity by adding new shifts, expanding hours, multifaceted interventions
	Protocols to communicate with patients considering leaving against medical advice or without being seen <ul style="list-style-type: none"> Expediting the assessment of patients who are considering leaving Connecting with these patients to communicate risks and benefits of leaving Protocols to follow up with certain patients who have left without being seen or left against medical advice (e.g., higher-acuity patients)
Issues related to abnormal or undocumented vital signs	Implementing flags or forced functions in the electronic medical record requiring clinicians to document or review vital signs
	Adjustment of policies or protocols to ensure that vital signs are assessed and documented appropriately

Types of interventions described in the quality improvement initiatives

We classified the quality improvement initiatives described in the narratives according to intervention type, as per the Hierarchy of Intervention Effectiveness (Appendix C).¹

Typically, the quality improvement initiatives described in the narratives included multifaceted interventions to address an issue. These interventions most commonly included elements of:

- Education and training (e.g., reviewing policies, sharing lessons learned through audits during morbidity and mortality rounds or other meetings)
- Simplification and standardization (e.g., implementing order sets or standardized protocols for certain conditions)

The audit process as a quality improvement initiative

Many participants described how they had engaged providers in conducting the audits and reviewing the findings as one of their approaches to quality improvement.

Some participants mentioned the importance of collaboration to learn from conducting the audits and reviewing the findings together as a means to generate ideas for improvement and share the lessons learned, and some mentioned that they have found the process of conducting the audits and sharing the findings beneficial in supporting continual learning.

Engaging multiple health care providers in conducting the audits and designing improvement initiatives is a valuable approach to this program. There is evidence that involving health care providers in an audit-based quality improvement program can contribute to a culture of safety² and improve clinical outcomes,³ and participation in root cause analyses has been found to be associated with higher scores on measures of patient safety culture.⁴

Multifaceted interventions

Many organizations described multifaceted interventions, which often included elements of education and training provided in combination with interventions that are higher on the Hierarchy of Intervention Effectiveness.

This use of multifaceted interventions that combine different types of interventions is a useful approach that may be more likely to be effective compared with using only a single approach.

Spotlights on quality improvement stories

We reached out to several hospitals that shared their quality improvement stories in their submissions. Follow the links below to read interviews with teams at these hospitals on Quorum, Ontario's health care quality improvement community.



[London Health Sciences Centre](#) created a position for an Emergency Medicine Sentinel Event Review Coordinator.



[Southlake Regional Health Centre](#) reviewed all return visits flagged in their data reports (more than 850), and are working on multiple initiatives in response to their findings.



[Collingwood General and Marine Hospital](#) and other hospitals within the **North Simcoe Muskoka LHIN** collaborate to discuss the program and share opportunities for improvement.

A note on the grouping of the 11 themes

In the 2016 report, the 11 themes that were identified among the quality issues/adverse events were organized according to three groups: patient characteristics or actions; actions or processes of the ED team; and system issues. The theme of patients who leave against medical advice or leave without being seen was grouped with themes related to patient characteristics or actions.

On further review, and thanks to feedback from program participants, the theme of patients who leave against medical advice or leave without being seen would more appropriately be grouped with system issues.

While not always the case, patients who leave against medical advice or leave without being seen often do so due to long wait times or lack of communication about the processes and next steps in their care journey, which is a system issue.

It is clear from the quality improvement initiatives described in the narratives that program participants naturally recognized this as an issue that could be addressed by improving wait times and communication with patients who are waiting.

Share your story

Would you like to share your hospital's experience with the ED Return Visit Quality Program on Quorum?

Email EDQuality@hqontario.ca.

Read more interviews

More interviews with participants in the ED Return Visit Quality Program will be posted on Quorum over the coming year.

Search for the tag [ED Return Visits](#) to read these as they become available.

Investigation of themes among quality issues/AEs

Our report on the 2016 results described 11 themes among the quality issues/AEs identified by participants (Appendix B). In this section, we aimed to build on the analysis in the 2016 report by investigating a subset of audits in order to identify additional themes among the quality issues/AEs.

All-cause 72-hour return visits

In the 2017 submissions, 4711 cases involving all-cause 72-hour return visits were audited, and 1033 (22%) resulted in the identification of a quality issue/AE.

We were able to collect quantitative data on the relative frequency of the 11 themes for a subset of audits that were recorded using a revised audit template that contained a list of the themes in a drop-down menu. The three most common themes were physician cognitive lapses, patient risk profile, and discharge planning/community follow-up (Figure 1).

Investigation of audits classified as ‘Other’

We analyzed the cases where quality issues/AEs were identified but participants classified the theme as ‘Other’ in order to identify any previously unknown themes among these cases.

On review, we found that many of these cases could, in fact, be classified into one of the 11 existing themes. Most commonly, these cases could be classified under the theme of discharge planning/community follow-up, suggesting that there may be unrecognized opportunities for improvement in these cases.

A new contributing factor was identified as a result of this analysis: system pressures/resource limitations. This was observed in cases where issues such as bed capacity, overcrowding, stewardship of limited hospital resources, or a short-staffed department may have contributed to the

decision to discharge on the first visit. A revised audit template will be released for the beginning of 2019 that will explore the contribution of system pressures/resource limitations.

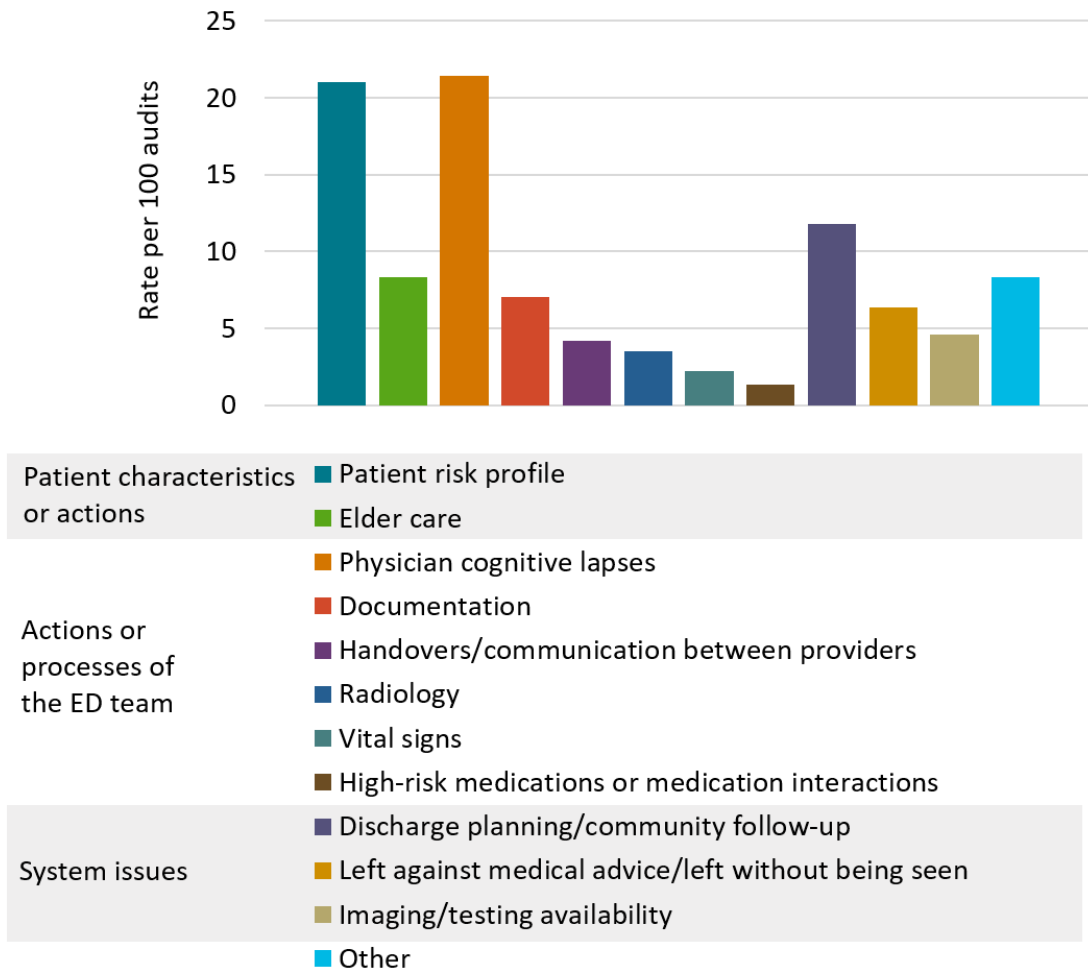


Figure 1. Themes among the quality issues/AEs identified by participating hospitals.

Definitions for each theme are presented in Appendix B.

Return visits involving sentinel diagnoses

The number of quality issues/AEs related to return visits involving sentinel diagnosis is relatively small. Therefore, all audits of return visits involving sentinel diagnoses in the 2017 submissions were analyzed by a team of ED physicians with quality improvement expertise in order to add to the body of information related to these types of return visits. This section presents a summary of our aggregate observations for 2016 and 2017.

AMI

In the 2017 submissions, 200 cases involving AMI and a paired diagnosis on the index visit were audited, and 84 (42%) resulted in the identification of a quality issue/AE.

In the 2016 report, we identified four themes among the quality issues/AEs involving AMI:

- Patients who leave against medical advice
- Patient risk profile
- Issues related to troponin testing
- Discharge planning and community follow-up

The audits involving AMI in the 2017 submissions generally fell under these same four themes, although our analysis led us to broaden several themes to accommodate our observations (highlighted in bold below). We were also able to add to the examples of quality improvement initiatives conducted to address these themes.

Patients who leave against medical advice or leave without being seen

As a result of the findings of the 2017 audits, this theme has been broadened to include patients who leave without being seen.

Quality improvement initiatives to address this theme generally fell into the following categories:

- Reducing wait times to reduce the number of patients who leave without being seen

Addressing return visits related to AMI

Of the three sentinel diagnoses (AMI, paediatric sepsis, and subarachnoid hemorrhage), return visits for AMI were the most common. Multiple organizations recognized the significance of potential missed diagnoses of AMI and included quality improvement initiatives addressing this issue in their narrative submissions.

These quality improvement initiatives ranged from providing education and reviewing cases with staff to more complex initiatives such as interventions to improve door-to-electrocardiography (ECG) times.

- Reducing the number of patients who leave against medical advice by improving patient communication and education
- Following up with high-risk patients who leave against medical advice (e.g., patients who had had blood work drawn or an ECG taken prior to physician initial assessment)

Patient risk profile

Multiple cases involved patients who presented without chest pain, but with common symptoms of acute coronary syndrome such as shortness of breath, epigastric pain, and weakness.

Quality improvement initiatives to address this issue included:

- Expanding medical directives for ECG and troponin testing to include the full spectrum of acute coronary syndrome symptoms
- Educating physicians and trainees about acute coronary syndrome without chest pain
- Adding an electronic record flag for cardiac patients

Issues related to troponin testing and/or ECG testing

Issues related to troponin testing were again common in the 2017 audits. Typically, these involved failure to repeat troponin testing or to flag results that were within the normal range, but may have been rising or 'borderline'. Similar issues related to ECG testing were also observed. In some cases, ECGs were not repeated, or were retrospectively identified as having abnormalities that were not noted during the initial visit.

Quality improvement initiatives to address these issues generally involved:

- Educating physicians and trainees on ECG interpretation
- Implementing or improving protocols for:
 - Repeating troponin or ECG testing
 - Troponin interpretation (e.g., always consider the difference in serial troponin levels, even if the levels remain low)

Discharge disposition, discharge planning, and community follow-up

Issues related to discharge planning and community follow-up were again common among the 2017 audits. An additional subset to this theme was also observed, which related to discharge disposition for patients at high risk of AMI who may have benefitted from admission for inpatient consultation.

The common quality improvement initiatives involved two main approaches: use of risk stratification to identify patients at moderate to high risk of AMI, and improving follow-up.

- Improving or implementing risk stratification to identify patients at risk of AMI
 - Educating physicians and trainees on high-risk unstable angina
 - Developing a protocol for and documentation of HEART scores⁵ for risk stratification
 - Providing interdepartmental feedback (i.e., informing consultants of potentially unsafe disposition decisions)
- Improving follow-up
 - Creating referral protocols
 - Confirming date and time of follow-up appointment prior to patients leaving the ED
 - Educating patients (e.g., on what to do if their symptoms persist or if they cannot obtain a follow-up appointment as recommended)
 - Reassessing follow-up processes

Paediatric sepsis

In the 2017 submissions, a total of 51 audits were conducted for cases involving paediatric sepsis; of these, 25 (49%) resulted in the identification of a quality issue/AE.

One observation that was observed in both the 2016 and 2017 cases was the failure to recognize or act on abnormal vital signs. Part of the reason for this may be that vital signs for children are age-based, and may not be recognized as abnormal by providers who don't see children as often.

A new recurring observation was a failure to recognize a case as sepsis because a definitive source of infection was not identified. This common cognitive error can be attributed to the lack of consensus in the definition of paediatric sepsis, but it is important that sepsis is considered when there is any

suspected or confirmed infection complicated by one or more signs of organ dysfunction. The source of infection may not always be determined.

Quality improvement initiatives generally involved protocols for assessing and addressing vital signs and addressing fever in young infants.

- A trial of observation with fever control followed by reassessment in the ED may be an easy, non-invasive method to help distinguish sepsis from common viral illnesses among children presenting with fever and tachycardia. Additionally, the use of sepsis trigger tools and bedside aides with paediatric sepsis toolkits can be helpful to address potential cognitive errors.
- Some hospitals mentioned implementation of the [eCTAS system](#), a triage decision-support system. This system will enable more accurate and consistent evaluation of every child's condition accounting for their age-based vital signs, and can assist with more readily identifying a child that is potentially sick with sepsis based on their vital sign abnormalities.

Subarachnoid hemorrhage

In the 2017 submissions, a total of 19 audits were conducted for cases involving subarachnoid hemorrhage; of these, 14 (74%) resulted in the identification of a quality issue/AE.

- Some cases involved physician cognitive errors, such as where it appeared in retrospect that a CT scan should have been ordered based on the chart review, but was not. These rare cases were typically followed up with feedback to the physician.
- Some cases involved discrepancies in the interpretation of diagnostic imaging that were identified during the quality assurance process, where the patient was called back to the ED. This underscores the importance of strong diagnostic imaging quality assurance processes.

Quality improvement initiatives generally involved holding discussions or providing education related to these cases (either with the treating physician, or as a group at morbidity and mortality rounds or other meetings).

Conclusion

The 2017 submissions for the ED Return Visit Quality Program have shown a remarkable effort on the part of participants to use this program to improve quality of care.

Participating hospitals have implemented this program in a number of creative ways that meet their own capacity and needs, and many have truly integrated the program into their organization's approach to quality improvement. We have also observed a wide variety of quality improvement initiatives arising from this program, with many participants describing comprehensive, multifaceted interventions to address some of the quality issues they have found.

We will continue to share stories of the inspiring work done by the people who are working on this program across Ontario. Updates will be available on the ED Return Visit Quality Program website. We encourage anyone involved to participate in Quorum to share experiences and discuss lessons learned with other program participants.

Together, we can further strengthen a culture of quality in Ontario's EDs, supporting a health care system that is safe, effective, efficient, patient-centred, and timely.

References

1. Cafazzo JA, St-Cyr O. From discovery to design: the evolution of human factors in healthcare. *Healthc Q* 2012;15(Special Issue):24-29.
2. Gitkind MJ, Perla RJ, Manno M, Klugman RA. The "physician-led chart audit: " engaging providers in fortifying a culture of safety. *J Patient Saf* 2014;10(1):72-9.
3. Kirschenbaum L, Kurtz S, Astiz M. Improved clinical outcomes combining house staff self-assessment with an audit-based quality improvement program. *J Gen Intern Med* 2010;25(10):1078-1082.
4. Boussat B, Seigneurin A, Giai J, Kamalanavin K, Labarère J, François P. Involvement in root cause analysis and patient safety culture among hospital care providers. *J Patient Saf* 2017 Dec 27. doi: 10.1097/PTS.0000000000000456. [Epub ahead of print]
5. Backus et al. A prospective validation of the HEART Score for chest pain patients at the emergency department. *Int J Cardiol* 2013;168:2153-8.

Appendix A. Acknowledgments

Health Quality Ontario acknowledges and thanks the many dedicated individuals who contributed to this report:

The ED Return Visit Quality Program Working Group

The Working Group provided guidance on all aspects of this program, and helped to write and review this report: Howard Ovens (Co-Chair), Lee Fairclough (Co-Chair), Lucas Chartier, Olivia Ostrow, Carrie Anne Brunet, Lisa Calder, Heather Campbell, Allison Costello, Jonathan Dreyer, Gazelle D'Souza, Brittany Davis, Emily Hayes, Delaney Hines, Sudha Kutty, Michael Schull, Kaeli Stein, Tonja Stothart, Tara Wilson, and Ivan Yuen.

Other acknowledgments

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Staff at Access to Care (Cancer Care Ontario) prepared the data reports and provided invaluable methodological support: Kaeli Stein, Agam Dhanoa, and Chris Lau.

Appendix B. Themes identified among the AEs/quality issues in the 2016 results

	Theme	Description
Patient characteristics or actions	Patient risk profile	Failure to account for high-risk characteristics of patients (e.g., age, comorbidities, psychosocial status) when determining evaluation and management
	Elder care	Failure to consider unique presentations and needs of elder patients
Actions or processes of the ED team	Physician cognitive lapses	Knowledge gap or failure to act on signs and symptoms
	Documentation	Suboptimal documentation, which may have contributed to the return visit that the patient experienced
	Handovers/communication between providers	Suboptimal communication, especially during handovers or between physicians and nurses
	Radiology	Failure to diagnose correctly by the emergency physician, to communicate by the radiologist, or to appropriately note discrepancies in a timely manner
	Vital signs	Failure to explain abnormal vital signs or vital signs that are not repeated for many hours during stay in ED and/or prior to discharge
	High-risk medications or medication interactions	Failure to account for high-risk medications in assessment and management
System issues	Discharge planning/ community follow-up	Failure to assess baseline functioning, ability to cope, and support systems available prior to discharge from the ED, as well as availability of follow-up care in the community
	Left against medical advice/ left without being seen	Patients who left against medical advice or who left without being seen
	Imaging/testing availability	Availability of timely access to imaging or other tests, i.e., after hours

Appendix C. Intervention types on the Hierarchy of Intervention Effectiveness

Intervention Type	Description	Example
Forcing functions	This represents the most powerful way to change behaviour because it is designed to limit the user's ability to deviate from a planned course of action.	Creating a force function at triage requiring all patients to have a sepsis screen/trigger tool completed in order to complete triage process.
Automation and computerization	These address human fallibility (including reliance on memory) for simple, routine and/or repetitive tasks.	Creating a visual cue that appears on the electronic patient tracking board to remind clinicians to consider sepsis for patients who meet sepsis criteria on their triage vital signs.
Simplification and standardization	These decrease variability and simplify complex steps by bundling them into a single decision or action.	Creating an order set for patients with sepsis, which encourages evidence-based care by providing suggestions of timely IVF and antibiotic therapy depending on the presumed source of sepsis.
Reminders, checklists and double-checks	These increase redundancy and include methods to remind providers of the necessity to perform certain actions.	Creating conspicuous posters about sepsis in the physician lounge (e.g., "Have you ordered antibiotics within three hours for sepsis?").
Rules and policies	These can help resolve complex issues at the organizational level. They are often very detailed, but the details are usually poorly understood by users, who may forget or disregard them.	Adopting a medical directive that stipulates nurses should draw sepsis panel blood work, start an intravenous normal saline bolus and administer acetaminophen before physician evaluation on all patients meeting sepsis criteria.
Education and training	These are an essential part of a comprehensive change initiative in that they are the most powerful way to create motivation for action, but alone they are often insufficient to achieve and sustain the level of change that is desired.	Developing a multi-modal education strategy (e.g., physician rounds, nursing huddles, monthly emails) may help attune providers to the importance of the problem.

The intervention types in this table are ordered from most effective (forcing functions) to least effective (education and training).

About Health Quality Ontario

Health Quality Ontario is the provincial advisor on the quality of health care, providing advice to specific health sectors, the system at large, and the Minister of Health and Long-Term Care on **how to make health care better for patients and health care providers**.

Health Quality Ontario has a legislative mandate to:

- Report to the public on how the health care system is performing,
- Find the best evidence of what works,
- Translate this evidence into concrete standards and tools that health care providers and organizations can put into practice to support ongoing quality improvement.

Health Quality Ontario is governed by its own 12-member Board of Directors with representation from the medical and nursing professions, patients, and

other segments of health care. It is committed to supporting the development of a quality health care system based on six fundamental dimensions: efficiency, timeliness, safety, effectiveness, patient-centredness, and equity.

In everything it does, Health Quality Ontario works with doctors, nurses, other health care providers, patients, and families to support higher-quality care across the system. Health Quality Ontario also works with partner organizations across the province to encourage the spread of innovative and proven programs to save money, eliminate redundancy, and improve care.

Ways Health Quality Ontario improves health care quality include:

- The spread of practical tools for doctors, nurses, other health care providers, and patients to improve care at the front lines.
- Tools for patients that help them manage their care, such as an initiative to help patients after leaving hospital.
- Rapid access to addiction medicine clinics in communities across Ontario.
- Confidential, voluntary information for family physicians about their practice, along with concrete suggestions on how to improve the care they provide.
- Innovative quality improvement programs across health sectors – including hospitals, primary care, long-term care and mental health and addictions – that spread proven programs that save money, eliminate redundancy, and improve care.
- Easily accessible and understandable information for patients and health care providers about wait times for tests, specialists, and surgical care.
- A yearly report tabled in the legislature on the health of Ontario's health system, shining a light on what is working and where the system must improve.

- Health technology assessments, which include recommendations for or against public funding of health care technologies or services, and by an independent group of patients, health care providers and other experts. These are rigorous reviews that analyze the evidence and look at benefits, harms, value for money, and affordability.
- Helping hospitals, long-term care homes, primary care, and home care organizations establish and meet their quality improvement goals through their annual quality improvement plans.
- Using the power of innovative digital tools to improve care at the front lines.
- Quality standards that set out for clinicians and patients what the evidence defines as quality care for important health conditions such

as opioid use and dementia, and for which there are unwarranted variations in care.

- Actively involving patients and families who are users of the health care system, bringing their perspective into the work that we do and providing tools for health care providers and patients to effectively partner to improve health care quality.

The intent at Health Quality Ontario is to harness the energy and attention of the health care system by focusing on changes needed to make things better for patients and health care providers, and on pragmatic solutions based on the evidence. The organization's mandate is to continuously improve the quality of health care in Ontario while always listening to the voices of physicians, nurses, other health care providers, and patients themselves – to fuel confidence, transparency, and accountability.

For more information: www.hqontario.ca

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