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<b>Why are you interested in the Improvement Scholars Program?</b>
<p>I am a Pediatric Emergency Medicine attending at UNC with international experience in quality improvement and patient safety across Canada, Australia, and the UK. I have formal training in improvement science, including a Master’s in Healthcare Quality and Patient Safety from Harvard Medical School and advanced QI fellowship training at The Hospital for Sick Children in Toronto.</p> <p>I am interested in the Improvement Scholars Program because it offers structured mentorship, methodological rigor, and institutional alignment needed to successfully design, implement, and sustain a high-impact improvement initiative at UNC. The program provides an ideal environment to deepen my implementation skills, learn UNC-specific improvement processes, and collaborate with multidisciplinary leaders committed to patient safety. Conversations with colleagues who previously completed the IHQI program, and who consistently described it as an exceptional, career-shaping experience, have made me genuinely excited about becoming part of this community. Further discussions with IHQI program leaders about my project have only increased my excitement, highlighting how much I can grow through the program’s rigorous methodology, expert coaching, and collaborative learning environment.</p> <p>This program would directly support my goal of becoming a long-term leader in quality improvement and patient safety at UNC while developing a scalable Pediatric ED Return Visit Review Program aligned with UNC Health’s Zero Harm and Learning Health System goals.</p>
<b>Problem Statement: What is the problem you are looking to solve?</b>
<p><b>What is the problem?</b></p> <p>Pediatric Emergency Department (ED) return visits within 72 hours are recognized indicators of care quality and are recommended by the Institute for Healthcare Improvement (IHI) as a trigger tool for identifying potential safety events<sup>1</sup> and recognized as a priority ED quality indicator internationally<sup>2</sup>. While many return visits are unavoidable, evidence suggests that a significant portion of those resulting in admission are associated with gaps in care during the initial ED encounter<sup>3,4</sup>. Furthermore, there are known inequities amongst pediatric ED return visits with significant disparities by race, ethnicity and insurance status<sup>5</sup>. Implementing robust structured return visit review program has been identified as a top priority indicator for patient safety in the ED<sup>6,7</sup>. The UNC Children’s ED, and healthcare system at large, currently lacks a formal, systematic process to identify, review, and learn from our pediatric return visits to prevent future harm.</p> <p><b>What happens?</b></p> <p>Patients who return to the ED are clinically reassessed; however, the initial visit, reasons for return, and potential diagnostic or system-level contributors are not consistently reviewed or categorized. Patterns and themes are not routinely shared with clinicians or leadership. Consequently, opportunities to identify missed diagnoses, gaps or inequities in care are often missed, limiting targeted quality improvement and system-level interventions.</p>

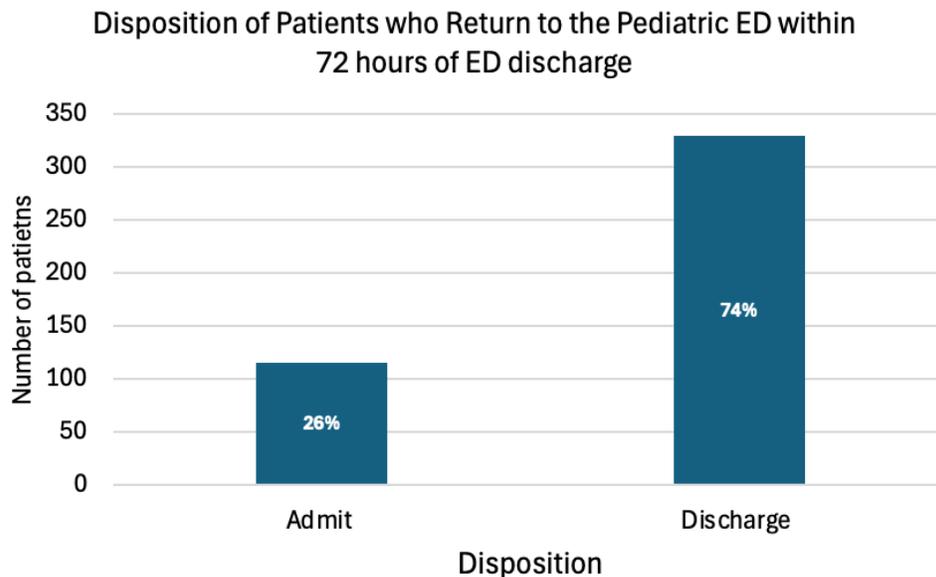
**When does it happen?**

Return visits occur year-round and across all shifts. Without structured review, trends related to seasonality, diagnoses, access to care, provider variation, or time of discharge remain unidentified and unaddressed.

**How often/how much?**

Studies have indicated that between 2-8% of children represent within 72 hours, and approximately 20-30% of those return visits lead to admission and reveal improvement opportunities<sup>8</sup>. A preliminary Epic report has been created to identify 72 hour return visits to the UNC Children’s ED. Baseline review of the last 12 months revealed that approximately 3.2% of UNC Children’s PED visits return within 72 hours (445/13,822), in keeping with the existing literature. Out of these, 329/445 (74%) are discharged home after second ED visit highlighting an area for improved initial discharge safety-netting, caregiver education and follow-up reliability. 26% (116/445) of patients are admitted following second ED visit. While disease progression is likely common, further in depth analysis of the trends is key in optimizing care and addressing safety gaps and diagnostic errors.

Figure 1 – Disposition of patients at second ED visit



**To whom does it happen?**

Pediatric patients and their families experience the clinical and emotional burden of return visits, including prolonged illness, repeated testing, anxiety about escalation of care, and the time and financial costs of revisits. Furthermore, a recent retrospective cross-sectional study demonstrated that there are significant disparities in care amongst pediatric ED return visits with certain races, ethnicity and insurance status being significantly more represented<sup>5</sup>. Frontline providers and departmental leadership lack timely feedback on diagnostic, safety, and system-level contributors that could inform improvement. At the system level, return visits contribute to potentially preventable harm, increased resource utilization, and decreased patient satisfaction within the Children’s Hospital.

**Importance Statement****How will the improvement benefit patients?**

A structured Return Visit Review Program will allow UNC Children's ED to systematically identify and understand the patterns, drivers, and inequities associated with pediatric return visits. By detecting latent safety threats, system gaps, and diagnostic vulnerabilities, this initiative will enhance patient safety, support more reliable clinical decision-making, and reduce preventable harm—such as missed diagnoses, delayed escalation of care, and communication failures. This program will enhance patient-centered care, improve safety and diagnostic accuracy, and support more equitable and effective care for children seen in the UNC Children's ED. Furthermore, this return visit program can then be expanded and scaled to the entire UNC health system to improve care for patients across our network.

**What is the potential downside of this effort for patients?**

While the overall benefits to patients are substantial, there are a few potential downsides to consider. Increased awareness of return visit reviews may lead clinicians to practice more cautiously, potentially resulting in additional testing or consultations, prolonged ED length of stay and/or unnecessary hospital admissions<sup>9</sup>. If not carefully designed with an equity lens, interventions could inadvertently widen existing disparities. These risks will be mitigated through streamlined workflows, clear communication strategies, and an emphasis on learning-focused, equitable improvement.

**What background information (data/analysis/literature) supports the choice of this effort?**

Pediatric-specific literature, including work endorsed by the American Academy of Pediatrics and multiple ED-based quality improvement (QI) initiatives, demonstrates that structured return-visit review programs are feasible, low-cost, and effective in identifying preventable harm, communication gaps, and opportunities to strengthen care pathways<sup>3,6,8,10-12</sup>. Internationally, the Ontario Emergency Department Return Visit Quality Program provides a well-validated model, showing that systematic identification of high-risk return visits combined with standardized chart review and clinician feedback reliably uncovers diagnostic vulnerabilities, latent safety threats, system failures, and inequities in care<sup>13</sup>.

Notably, a large tertiary pediatric ED study found that 19% of return visits were associated with preventable harm and that implementation of a structured review program led to targeted QI interventions and sustained system-level improvement<sup>8</sup>. Another pediatric ED return visit study highlighted that diagnostic errors occur in up to 7% of cases leading to admission<sup>14</sup>. These studies further demonstrated that detailed individual case review provides deeper insight into clinician decision-making and complex contributing factors than aggregate metrics alone, allowing recurrent safety themes and near-misses, often overlooked in isolation, to be identified and prioritized for action.

Emerging evidence also highlights the importance of examining return visits through an equity lens, as return rates and preventability vary by race, language, socioeconomic status, and access to primary care. Addressing these disparities is essential to advancing equitable, high-reliability pediatric emergency care<sup>15</sup>.

The Joint Commission also advocates for EDs to implement dedicated quality improvement and patient safety initiatives, such as Return Visit Programs, targeting preventable or potentially preventable 72-hour ED return visit leading to admission (PPRA-72) through rigorous methodology while incorporating an equity lens<sup>16</sup>.

**Project Scope****Executive summary**

Unscheduled pediatric Emergency Department (ED) return visits within 72 hours are a well-established indicator of care quality, diagnostic reliability, and patient safety. At UNC Children's Emergency Department, approximately 3.2% of pediatric visits result in a return within 72 hours and among these nearly one quarter lead to hospital admission. While some unavoidable, such as in cases of disease progression, these represent a substantial opportunity to improve diagnostic reliability, potentially preventable harm, systems failures and inequities in care. Despite the recognized value of return visits as a safety-surveillance tool, the department currently lacks a formal, systematic process to routinely identify, review, and learn from pediatric ED return visits. As a result, actionable learning is not consistently fed back to clinicians or leadership. Implementing a structured return-visit review program is essential to distinguish unavoidable from preventable returns, proactively identify safety risks, and drive targeted, equitable quality improvement in pediatric emergency care. Rigorous methodology while incorporating an equity lens is recommended by the Joint Commission and thus should be standard of care across our system.

**Proposed Goal and Aim Statement**

**Overall Goal:** To design, implement, and evaluate a structured Pediatric Emergency Department Return Visit Review Program that systematically identifies, reviews, and learns from 72-hour pediatric ED return visits leading to hospital admission and uses these insights to drive targeted, equitable quality-improvement interventions aimed at reducing preventable harm, diagnostic vulnerabilities, system failures and inequities in care.

**Overall SMART Aim:** Within 12 months of implementation, this project aims to reduce by 10% preventable or potentially preventable 72 hour pediatric ED return visits (PPRA-72<sup>1</sup>) leading to hospital admission at UNC Children's ED and hospital.

**Secondary aims:** Within 12 months of implementation, this project aims to:

1. Identify and categorize at least one patient safety issue per PPRA-72 including reviewing front-line provider perspectives (Appendix B) and patient/families experience (Appendix C). A framework specific to our setting will be created based on published classification systems (see section below)
2. Track themes longitudinally and incorporate an equity lens to track inequities in care.
3. Develop, implement and sustain at least one targeted quality improvement intervention based on identified actionable learning per PPRA-72.
4. Provide timely, non-punitive feedback to clinicians for self-reflection, learning and continuous improvement as well as to departmental and institutional leadership within 2 weeks of visit.

**In Scope**

- **Patient population:** All pediatric patients (0–18 years) presenting to UNC Children's Emergency Department who return within 72 hours of an index ED visit and get admitted to hospital. In this initial phase, both the index visit and return visit are limited to encounters at the UNC Children's Emergency Department located at the UNC Medical Center. Return visits to other UNC-affiliated or outside Eds will be included in later phases (see Spread & Scale). The 72-hour interval was selected to optimize signal detection within a quality improvement surveillance framework<sup>8,10,17</sup>. This timeframe is sufficiently long

<sup>1</sup> PPRA-72: Potentially Preventable 72-hour returns with Admission (See section below)

to capture a meaningful volume of return visits resulting in hospital admission to identify actionable system-level patterns, while remaining short enough to reduce noise from admissions unlikely to be preventable or causally related to the index ED encounter. This balance enhances the program's ability to distinguish true improvement opportunities from background clinical variation.

- Size: An EPIC report has already been established to look at return visits to the Pediatric ED at UNC. From that report, it appears that there are approximately 13,800 pediatric ED visits annually, with 445 return visits within 72 hours (3.2%). This equates to approximately 37 return visits per month. 26% of those ultimately get admitted (9-10/month). The literature suggests that 20-30% of pediatric ED return visits leading to admission are preventable or potentially preventable, this would therefore represent approximately 3 cases per month in the pediatric ED at UNC.
- Setting: UNC Children's Emergency Department and Children's Hospital.

#### **Out of Scope**

- Return visits leading to discharge from the ED
- Scheduled return visits
- Returns > 72 hours after index visit
- Non-ED pediatric encounters (direct admissions, clinic visits)
- Return to other, non-UNC Main Hospital ED
- Returns for unrelated new complaints
- Adult patients (>18 years old)

#### **Spread & Scale - Proposed future phases:**

- Phase 2 : Return visits leading to admission (phase 1) and also discharge (new to phase 2) but still limited to UNC Main ED
- Phase 3: All return visits including all in-network visit
- Phase 4: All return visits including all available in care everywhere
- Phase 5: Expand Return Visit Program to adult ED at main hospital campus
- Phase 6: Expand Return Visit Program across general ED's in the UNC Health system, broadening impact on our health care system

#### **Proposed Framework to Classify Preventable or Potentially Preventable 72-hour ED return visit leading to admission (PPRA-72)**

There is no gold standard framework to assess preventability and quality issues in ED revisits and thus this will be developed based on available published frameworks and literature (summarized below) and refined through multiple PDSA cycles involving multidisciplinary reviewers to ensure feasibility, reliability, equity-sensitivity and usability within real-world workflows. Reviewers will then use this scheme to determine if the visit was potentially preventable and categorize the quality gap leading to revisit/admission.

#### Joint Commission Framework<sup>16</sup>

The Joint Commission proposes a structured, reliable approach for identifying potentially preventable return visits leading to actionable improvements. This framework has been internally validated with moderate inter-rater reliability (K=0.51) thus highlighting the inherent subjectivity in assessments<sup>16</sup>. It classifies events as non-preventable (Classification 0, 1 and 2) and potentially preventable (Classification 3) and examples are summarized in table 1 below.

**Table 1. 72-Hour Return with Admission Classification Scheme**

Category Class	Subcategory	Criterion	Hypothetical Case Example(s)
<b>0</b>	<b>Planned revisit/return</b>	Planned revisit for evaluation	<ul style="list-style-type: none"> <li>Planned wound check (cellulitis, abscess)</li> <li>Positive blood culture call-back</li> </ul>
<b>1</b>	<b>Anticipated recurrence or progression of disease</b>	Recurrence or progression of diagnosed condition despite appropriate evaluation, treatment, and disposition	<ul style="list-style-type: none"> <li>Patient diagnosed with UTI, discharged on appropriate oral antibiotic regimen. Returned for new onset of vomiting and inability to tolerate oral antibiotics, admitted for IV antibiotics.</li> <li>Patient diagnosed with pneumonia. Risk stratified, discharged, and treated with appropriate oral antibiotics. Returned for new shortness of breath and is admitted for IV antibiotics and oxygen requirement.</li> </ul>
<b>2</b>	<b>Unrelated second diagnosis</b>	Second presentation unrelated to index visit	<ul style="list-style-type: none"> <li>Patient with a trip and fall and discharged with knee contusion. Returned for finger laceration after slicing melons.</li> <li>Patient treated for a migraine headache. Returned for a UTI.</li> </ul>
<b>3</b>	<b>Potentially preventable returns</b>		
3A	Diagnosis issue	Patient presents with the same condition. Diagnosis was missed at the first visit. Discordance between first and second diagnosis	<ul style="list-style-type: none"> <li>Patient seen for abdominal pain, labs with elevated WBC count, and nondiagnostic ultrasound. Returned with the same symptoms. Team obtained CT abdomen and pelvis, diagnosed with appendicitis.</li> <li>Patient seen for chest pain and mild tachycardia, a troponin and CXR are normal. The patient was discharged without consideration of other entities. Returned with a pulmonary embolism.</li> </ul>
3B	Treatment issue	Inadequate or inappropriate treatment	<ul style="list-style-type: none"> <li>Patient who required intermittent straight catheterization for urine, diagnosed with UTI, discharged on antibiotic for which prior sensitivities showed resistance. Returned with persistent infection.</li> <li>Patient is diagnosed with prostatitis and discharged with antibiotics for only 7 days. Returned with persistent infection.</li> </ul>
		Non-evidence-based treatment	<ul style="list-style-type: none"> <li>Patient is diagnosed with GERD/gastritis, is discharged with instructions to use an abdominal hot pack when he feels pain. Returned with a GI bleed.</li> </ul>
3C	Prognosis issue	Progression of disease that could have been reasonably anticipated by features of the initial presentation	<ul style="list-style-type: none"> <li>Patient diagnosed with pyelonephritis, given one dose of IV antibiotic then discharged with oral antibiotics despite continued vomiting in ED. Returned and required admission for IV antibiotics.</li> </ul>
3D	Patient education issue	Discharge process incomplete or inadequate. Return visit may have been avoided with improved discharge process.	<ul style="list-style-type: none"> <li>The patient has a splint applied, but is not given instructions on cast care or environmental risks. Returns due to splint breakdown.</li> </ul>
3E	Follow-up	Inadequate follow-up. Return visit may have been avoided if patient had had adequate or appropriate follow-up.	<ul style="list-style-type: none"> <li>Patient directed to follow up with OB/GYN for beta HCG trending for pregnancy of undetermined location. Appointment was not scheduled and care not coordinated with OB/GYN team. Patient returned to ED for recheck.</li> </ul>

Ontario’s ED Return Visit Quality Program<sup>18</sup>

This is the largest mandatory audit program that has conducted over 12 000 detailed chart audits across 86 hospitals in Ontario, Canada and identified quality issues and/or adverse events in up to 23% of cases which has led to hundreds of quality improvement initiatives. They classify events by types (Table 2), themes (Table 3) and categorizes interventions (Table 4).

**Table 2 – Adverse events**

Adverse Event or underlying quality issue	Description	Example
Diagnosis	Delayed, missed, or incorrect diagnosis	Diagnostic testing not done, delayed, or discrepant reporting of results. Bias, incorrect diagnosis based on previous visits, etc.
Management of patient	Appropriate or required care not provided; standard of care not reached.	Delayed administration of TPA for patients presenting with stroke symptoms, not following clinical guidelines or medical directives, etc.
Medication adverse event	Undesirable or unintended negative outcome resulting from the appropriate or inappropriate use of medication(s)	Medication-related hypotension, allergic reactions, tachycardia, falls
Procedural complication	Undesirable or unintended adverse event arising following a medical procedure or complication	Surgical site infection, bleeding from indwelling line or catheter, post procedure blood clot, etc.
Suboptimal discharge follow up	Post ED, outpatient follow up not arranged or completed	Post discharge follow up of results (e.g., blood culture, biopsy results), telephone calls, clinic visits not arranged or completed.
Unsafe discharge disposition or decision	Person is released from ED too early, or without proper follow up / community-based care	Follow up care with community-based provider not arranged, medications not prescribed or available, risk or discharge failure not addressed or communicated.
Access/ Service not available	Inadequate supply or accessibility of services, resources, or facilities	No access to advanced diagnostic imaging not available or nights/ weekends, hospital consultant (e.g. psychiatry, sickle cell expertise), allied health (e.g., Social work), interpreters, ECG in ED, etc.

**Table 3 – Underlying Themes**

Theme	Description	Example
Patient risk profile/ patient factors	Failure to account for high-risk characteristics of patients (e.g., age, comorbidities, psycho-social status, etc.) when determining evaluation and management	40 day old patient presenting with inconsolable crying and irritability, no consideration or evaluation for sepsis, and had return visit to another hospital and found to have E. coli meningitis
Elder care	Failure to consider unique presentations and needs of elder patients	81 yr old from nursing home; had an unwitnessed fall causing fracture of patella; treated conservatively with Zimmer splint; discharged back to NH. Returned next day, confused. CT scan showed subdural hematoma, as a result of the first fall. Patient admitted for monitoring
LAMA or LWBS	Patients who left against medical advice or who left without being seen	37 year old presented to ER. Prolonged wait time and LWBS recorded after 4 hours. No retriage. Patient returned with meningitis; admitted to ICU.
Documentation	Suboptimal documentation, which may have contributed to the return visit that the patient experienced	Patient's positive troponin was not documented in the chart, and it is unclear whether the MD had seen it; patient returned 5hrs later for admission
Physician cognitive lapses	Knowledge gap or failure to act on signs and symptoms	Immunocompromised patient presents with abdominal pain after recent bowel perforation. MD failed to consider intra-abdominal abscess and performed an abdominal plain film
High-risk medications or medication interactions	Failure to account for high-risk medications in assessment and management	Xarelto prescribed to patient with increased creatinine level (this med contraindicated with elevated creatinine levels)
Vital signs abnormal or not documented	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	Patient with chronic A.fib and heart rate of 126 at triage (not re-documented or re-checked during visit). Presented with lightheadedness in setting of URTI, discharged home with plan to see GP after long weekend. Patient had syncopal episode at home (HR on return visit of 155) and sustained head injury requiring admission.
Handovers/communication between providers	Suboptimal communication, especially during handovers or between physicians and nurses	Nursing documentation states patient reports this is the worst headache of their life but in MD documentation patient states similar headache in past
Radiology	Failure to diagnose correctly by the emergency physician, to communicate by the radiologist, or to appropriately note discrepancies in a timely manner	Patient visited ER with LLQ abdominal pain and had a CT abdo to rule out diverticulitis. Initial radiologist read was negative. Pt was discharged home with a diagnosis of abdo pain NYD. Next day, patient called back as the radiologist reinterpreted the CT as a query sigmoid volvulus. Pt was admitted to surgery and eventually underwent colostomy for treatment of volvulus
Imaging/testing availability	Availability of timely access to imaging or other tests, i.e. after hours	Patient presented in evening hours with RLQ abdominal pain brought back next day for ultrasound; +diagnosis of appendicitis
Discharge planning/community follow-up	Failing 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	Patient with chest pain was discharged to follow-up with cardiologist, but cardiologist was not available for 2 months

**Table 4 – Interventions**

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, etc.) may help attune providers to the importance of the problem.

Adapted from: Chartier L, Stang A, Vaillancourt S, Cheng A. Quality improvement primer part 2: executing a quality improvement project in the emergency department. CJEM, in press. 2017.

Pediatric ED quality frameworks

A large prospective study looking pediatric 72 hour ED return visit leading to admission demonstrated that up to 20% were preventable and successfully categorized return visits by root cause s(natural disease progression, diagnostic error, new conditions, scheduled re-admission) as per Table 5 below<sup>8</sup>.

**Table 5 – Root-Cause Analysis for Return Visits<sup>8</sup>**

Root Cause	(%)	Case Example (s)
Progression of disease	63.2	<ul style="list-style-type: none"> <li>• Bronchiolitis presenting on day 1 of symptoms, returning with hypoxia needing admission on day 3</li> <li>• Patient with 3 d of fever later returning with a diagnosis of Kawasaki disease on day 6</li> </ul>
Positive test result	9.3	<ul style="list-style-type: none"> <li>• Positive blood culture or discrepant diagnostic imaging report on a discharged ED patient</li> </ul>
Misdiagnosis	6.4	<ul style="list-style-type: none"> <li>• Gastroenteritis diagnosed on first visit returning 8 h later with a ruptured appendicitis</li> <li>• Knee pain diagnosed as a strain first visit returning with worsening pain and limp, and found to have a SCFE</li> </ul>
New/unrelated complaint	3.2	<ul style="list-style-type: none"> <li>• Viral illness on first visit returning with supracondylar fracture after falling off monkey bars</li> </ul>
Scheduled return visit	3.0	<ul style="list-style-type: none"> <li>• Nonurgent ear foreign body scheduled to be removed next day in the operating room with sedation</li> </ul>
Handover related	0.5	<ul style="list-style-type: none"> <li>• Management plans were changed by the receiving team that took over care or by the consultant (ie, was intended to be admitted on index visit by initial ED team)</li> </ul>
No follow-up available to patient	0.4	<ul style="list-style-type: none"> <li>• Lack of outpatient follow-up with a physician or for necessary testing due to holidays and occasionally weekends</li> </ul>
Communication related	0.2	<ul style="list-style-type: none"> <li>• Language barrier with family</li> <li>• Difficulty coordinating outpatient services for outpatient workup (ie, sedated MRI in timely fashion)</li> </ul>
Other	13.8	<ul style="list-style-type: none"> <li>• Caregiver support needed</li> <li>• Parental anxiety about child's illness</li> <li>• Patient/family declined admission on index ED visit</li> </ul>

Another pediatric study categorized by contributing factors in three key categories - clinical, patient and system (Table 6). They highlighted that diagnostic errors contributed to 7% of return visits using a revisit decision tree (Figure 2).

**Table 6 – Systems Level Actions Categorized by Reason for Revisit<sup>14</sup>**

Category	Primary Reason Related to Revisit	Example System Level Actions Implemented
Clinical	Diagnostic error Complication of ED treatment	<ul style="list-style-type: none"> <li>• Case referral to M&amp;M committee</li> <li>• Revision of clinical pathways with corresponding QI team (eg, discharge criteria, frequency of vital sign assessment)</li> <li>• First dose of select medications provided in ED to assess for medication reaction before discharge</li> </ul>
Patient	Patient noncompliance Inadequate family/caregiver support Lack of understanding of discharge instructions/patient education	<ul style="list-style-type: none"> <li>• Implementation of ED-specific case manager and improved access to this resource for providers and patient/families</li> <li>• Revision and enhancement of standard discharge instructions available in the electronic health record for distribution to families</li> <li>• Scripting and education of verbal discussion of discharge instructions with families to reduce variability</li> </ul>
System	Inability to obtain timely follow-up	<ul style="list-style-type: none"> <li>• Implementation of expedited appointment “order” in the electronic health record transmitted directly to specialist with tracking</li> </ul>

Figure 2 – Clinical revisit decision tree

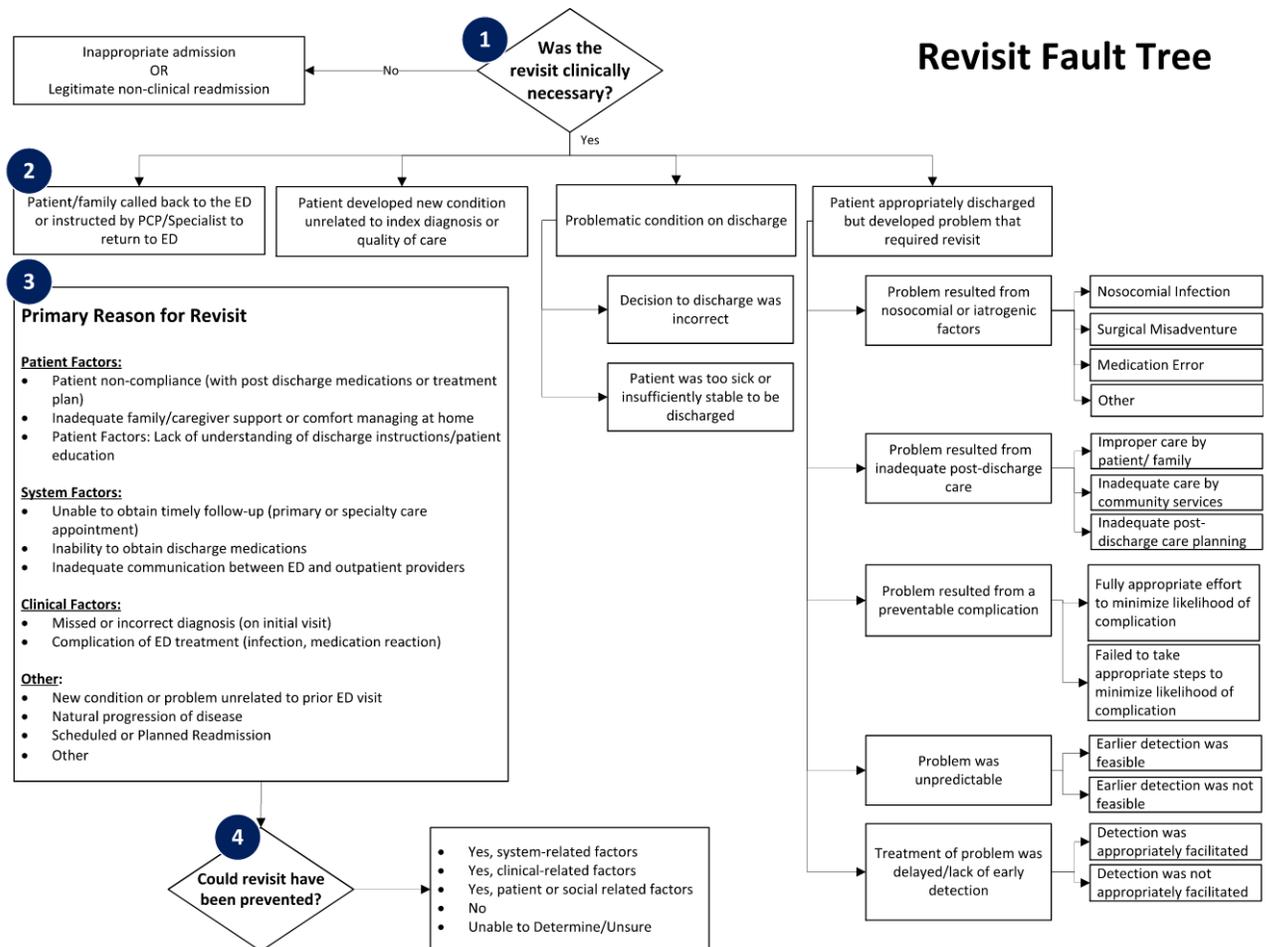


FIGURE 2. Revisit Fault Tree.

**How has this problem been addressed successfully at UNC or elsewhere?**

At UNC Children’s Emergency Department, return visits have historically been reviewed in an ad hoc and case-specific manner, without a formalized process for routine identification, categorization, or longitudinal learning from 72-hour pediatric ED revisits. However, several existing efforts demonstrate that structured case review is both feasible and impactful within the UNC system. These include hot debriefs review, quality council committees meetings and SAFE reporting all of which have successfully identified patient safety and systems issues when applied to selected cases. What is currently lacking is a dedicated, systematic program that uses pediatric return visits as an ongoing safety-surveillance tool. This project builds directly on UNC’s established Quality and Safety infrastructure while addressing this critical gap in pediatric emergency care. Furthermore, once established this project can be adapted and used across all EDs across our system.

Elsewhere, structured return-visit review programs have been implemented successfully with demonstrated impact. The most comprehensive example is the Ontario Emergency Department Return Visit Quality Program

(EDRVQP), including implementation at The Hospital for Sick Children (SickKids) in Toronto in Canada. This province-wide program uses standardized identification of high-risk return visits, structured chart review tools, and feedback loops to clinical teams. Published evaluations show that this model reliably identifies diagnostic vulnerabilities, communication failures, latent safety threats, and inequities in care, and has led to targeted quality improvement interventions and sustained system-level change.

In the United States, multiple pediatric and general emergency departments have also implemented 72-hour return visit review initiatives as part of their QI and diagnostic-safety efforts. These programs have demonstrated improvements in discharge communication, follow-up planning, diagnostic reliability, and reduction of unnecessary revisits, further supporting the feasibility and effectiveness of this approach in diverse healthcare settings.

Collectively, these successful models demonstrate that structured return-visit review programs are feasible, high-yield, and effective for improving patient safety, reducing preventable harm, and advancing patient-centered and equitable care. This project adapts these proven strategies to the UNC Children’s ED context, leveraging existing institutional strengths to implement a sustainable, systematized return-visit program.

**Measures: (Process, Balancing, Structure)**

For ease of readability, 3 columns were removed from the table below.

- Measures exclusion: All measures exclusion will be as per listed in the out of scope section above.
- Data source: All data source will be 1) structured return visit audit tool (see proposed template – appendix 1), 2) EPIC report for 72 hour pediatric ED visits (already created by EPIC team) and 3) manual EPIC chart review.
- Collection frequency: Biweekly

Measure Name	Measure Type	Measure Calculation	Baseline	Goal
Rate of PPRA-72	Outcome	$\frac{\# \text{ PPRA-72}}{\text{Total reviewed 72h ED Return Visit leading to admission (RA-72)}}$	Assuming up to 30% of return visits are preventable or potentially preventable, this would be up to 3xPPRA-72 out of a total of 10 72-h return visit leading to admission per month.  See "in scope" section above for detailed baseline statistics.	Decrease by 10%
% Use of tool and provider/family survey	Process	$\frac{\# \text{ cases reviewed with standardized audit tool within 1 week, \# cases with completed provider (at least one) and family/patient survey}}{\text{total RA-72}}$	0	>= 90%
% with at least 1 identified quality issue	Process	$\frac{\# \text{ reviewed cases with at least 1 identified quality issue}}{\text{total reviewed cases}}$ Stratified into types	0	>= 80%
% with at least 1 proposed intervention	Process	$\frac{\# \text{ reviewed cases with at least 1 proposed intervention}}{\text{total reviewed cases}}$ Stratified into types	0%	>= 80%
% Hospitalization	Balancing	$\# \text{ patients admitted from the pediatric ED} \div \text{All pediatric ED visits}$	To be determined – current %	No significant increase

<b>Root Cause Analysis</b>
<p><b>Underlying causes:</b></p> <ul style="list-style-type: none"> <li>• No standardized process to identify and review return visits</li> <li>• No process to allow providers to self-reflect and continuously learn</li> <li>• No process to learn from events</li> <li>• Diagnostic uncertainty and evolving illness</li> <li>• Cognitive biases</li> <li>• Inequities related to language, socioeconomic status, and access to care</li> </ul> <p><b>Why the problem persists:</b></p> <ul style="list-style-type: none"> <li>• Competing operational priorities</li> <li>• Reliance on passive metrics rather than structured review</li> <li>• Limited feedback loops to frontline clinicians</li> <li>• Lack of dedicated ownership of return-visit learning</li> </ul>
<b>Ideas for Improvement</b>
<p>Improvement ideas listed below are informed by existing literature and preliminary discussions with multidisciplinary leaders across the department and institution. However, multiple PDSA cycles will be required to truly understand our current processes to develop sustainable interventions that address our identified gaps.</p> <ul style="list-style-type: none"> <li>• <b>Case identification:</b> <ul style="list-style-type: none"> <li>○ Automated Epic identification of 72-hour return visits (report already created with EPIC team)</li> <li>○ SAFE reports</li> <li>○ MDT leaders</li> </ul> </li> <li>• <b>Case review structure:</b> Through PDSA cycles, we will determine the most feasible structure for case reviews, including optimal frequency, meeting format (virtual/in-person) and multidisciplinary participation while ensuring psychological safety and minimising operational burden. A potential initial structure may be case reviews conducted biweekly using a small multidisciplinary core group (pediatric ED physician, nurse QI lead and resident) in a virtual format to maximise feasibility. Participations from front-line providers will be obtained through anonymous survey ahead of the review. Broader MDT participation will be incorporated as needed on a case-by-case basis. However, the optimal structure will require multiple tests of change to ensure sustainability, psychological safety and feasibility.             <ul style="list-style-type: none"> <li>○ Standardized structured chart review tool (proposed template – Appendix A)</li> <li>○ Framework for classification of events based on above evidence (to be created with MDT through PDSA cycles as discussed above)</li> <li>○ Flowchart for event classification (to be created with MDT)</li> <li>○ Anonymous survey to obtain broad perspectives<sup>19</sup> from front-line providers involved in case (multidisciplinary and interprofessional) for each case (Appendix B – proposed template survey)</li> <li>○ Patient/family perspectives for each case (Appendix C – proposed template survey)</li> <li>○ Multidisciplinary review team to ensure agreement in identified issues</li> </ul> </li> <li>• <b>Post-review process:</b> <ul style="list-style-type: none"> <li>○ Non-punitive, timely clinician feedback (plan to survey front line providers to determine most efficient way to provide feedback, ideas are asking them to fill out survey on pp 72-hr RV-A to obtain their and allow self-reflection)</li> <li>○ Thematic aggregation of findings to inform targeted QI interventions (creation of dashboard)</li> </ul> </li> </ul>

- Equity-focused data stratification (incorporate into audit tool, see Appendix A)
- Flowchart of escalation of issues with clear processes and responsibilities from leaders

**Risks and Opportunities**

**Factors anticipate will foster improvement:**

- Strong leadership support (pediatric ED RN Manager, pediatric ED chief, pediatric ED medical director).
- Alignment with existing safety infrastructure (SAFE reporting, QI councils, ED debrief and ED leadership committees)
- High-yield, low-cost intervention
- Clear institutional alignment (Zero Harm, equity)

**Major anticipated challenges:**

- Determining an efficient, sustainable workflow for multidisciplinary case reviews will require multiple PDSA cycles to refine meeting structure, attendance, and format (virtual versus in-person)
- Time constraints for reviewers, front line clinicians and patient/families
- Ensuring psychological safety for clinicians and patient/families contributing their perspectives
- Avoiding increased admissions, ED LOS or unnecessary testing
- Sustaining engagement beyond pilot phase
- Use of technology for dashboard, IT and resources

**Stakeholders and Project Team Members**

Name	Role
Dr. Cheryl Jackson & Dr. Daniel Park	<i>Sponsor(s)</i>
Dr. Marie-Pier Lirette	<i>Team Lead</i>
Faculty from IHQI	<i>QI/Safety Expert</i>
Nicholas Elinski	<i>EPIC/IT Lead</i>
Katie Smith	PED Nursing Manager
Shiva Zargham	Project team member
RN Champion from ED	TBD if approved, few potential RN identified a
Pediatric Resident	TBD if approved
Patient/Family representative	TBD if approved

**Which Local Quality & Operations Council would this project report up to and what feedback have you received from them and your leadership about your project concept?**

This project would primarily report through the Emergency Department Quality Council, with parallel oversight from the Pediatric Quality Council, and established feedback loops to Pediatric ED leadership and the broader Children’s Quality & Safety infrastructure to ensure alignment with institutional priorities and sustainability.

The project concept has been reviewed with, and is strongly supported by, Pediatric ED leadership, including Dr. Cheryl Jackson, Pediatric ED Chief, and Dr. Daniel Park, Pediatric ED Medical Director. Dr. Shiva Zargham, who leads Pediatric ED immediate debriefs, has provided valuable insight to ensure alignment with existing safety and learning processes. In addition, Ms.Katie Smith, Pediatric ED Nurse Manager, will also be reviewing this and

offering key operational and nursing perspectives. Ultimately, other stakeholders will be recruited to obtain representation from all key providers such as pharmacists, respiratory therapists, social workers and child life specialists. Collectively, this leadership group has endorsed the project’s goals, emphasized its importance for diagnostic safety and system learning, and committed to supporting implementation through appropriate resources and multidisciplinary engagement

**Impact on the Quintuple Aim**

This project directly impacts all of Quintuple aim for healthcare improvement:

- Patient Experience: This project directly aims to improve patient safety, quality, timeliness, communication and patient centeredness in preventing harm and improving care reliability. It also seeks to include patient/family perspectives into classification of events and identification of improvement ideas.
- Population health: This projects aims to prevent adverse events and diagnostic errors; contributing to overall improved population outcomes.
- Cost: This project aims to reduce re-visits and deterioration. In phase 2 – this project will also aim at reducing unnecessary revisits which has significant costs to both patients and hospital.
- Health equity: This project aims to reduce inequities in care with regards to re-admissions and preventable harm.
- Workforce well -being: learning focused and non-punitive feedback. Incorporates opportunities for self-reflection and learning as well as it includes front-line multidisciplinary providers in identifying adverse events and improvement ideas.

**Sustainment Plan**

This initiative is intentionally designed to move beyond a time-limited project and establish a durable return-visit surveillance program within the Pediatric ED. The structure and cadence of case-review meetings will be refined iteratively through ongoing PDSA cycles to ensure feasibility, efficiency, and psychological safety for all participants. The IHQI program would be invaluable in helping develop robust measures, metrics, standardized review tools, automated data extraction processes, and a structured dashboard to enable real-time and longitudinal tracking of 72-hour return visits requiring admission.

Embedding the program within existing ED Quality Council structures, safety rounds, and institutional reporting pathways will ensure operational integration and continuity beyond the IHQI support period. Transitioning to shared operational ownership, supported by a core Pediatric ED patient safety group, will further anchor the work within routine QI workflows.

Establishing a dashboard and longitudinal dataset is critical. Currently, return visits are not systematically tracked in a way that allows pattern recognition over time. By creating a sustainable surveillance infrastructure, we will be able to detect emerging trends, previously unrecognized system vulnerabilities, disparities in care, and recurring diagnostic or process issues. This will shift return visits from episodic review to a continuous learning system.

Over time, the program can scale to include broader categories of return visits and integrate with other safety metrics, serving as a foundational data source to proactively guide ED quality priorities. Ultimately, this initiative aims to establish a sustained pediatric ED safety infrastructure — and create the framework for a dedicated QI/patient safety leadership role to steward ongoing improvement efforts.

**Carolina Quality Tools**

Through this initiative, we aim to advance the vision of Carolina Quality by strengthening diagnostic reliability, reducing preventable harm, and promoting equitable care within the Pediatric Emergency Department. High performance management tools will serve as the foundational infrastructure supporting this work.

Return visits requiring admission will be identified through automated EHR data pulls and cross-referenced with SAFE reporting data, patient relations reports, and existing quality triggers to ensure comprehensive signal capture. The SAFE reporting system will be leveraged not only as a source of complementary safety event data, but also as a mechanism to encourage frontline clinicians and staff to voluntarily report concerns related to diagnostic uncertainty, discharge communication, care transitions, or perceived inequities. Consistent with UNC’s Just Culture framework, return visit reviews will explicitly focus on identifying system vulnerabilities rather than individual performance, reinforcing a psychologically safe environment that promotes transparency and learning rather than blame.

Structured team communication strategies will support case review processes. Findings will be shared through ED Quality Council meetings, interdisciplinary huddles, and safety rounds to facilitate collective learning and reinforce teaming skills across physicians, nursing, and ancillary staff. When actionable themes are identified, targeted micro-interventions (e.g., discharge process refinements, communication standardization, follow-up workflows) will be tested using PDSA cycles.

Visual management boards and dashboards will display aggregate return visit metrics, themes, and improvement initiatives, creating transparency and enabling longitudinal tracking of trends over time. This visual infrastructure will allow the department to monitor emerging patterns, identify disparities, and proactively prioritize QI efforts. By embedding return visit surveillance within established reporting, communication, and visual management systems, this program will transform episodic case review into a continuous learning system aligned with high reliability principles.

**How does this project align with UNC’s mission?**

First, it aligns with UNC Health’s Zero Harm and High Reliability goals by establishing a structured, proactive process to identify diagnostic vulnerabilities, system gaps, and latent safety threats through review of pediatric ED return visits. By focusing on preventable harm and diagnostic reliability, the program advances the organization’s commitment to delivering safe, consistent, and reliable care.

Second, the project supports the UNC Children’s Quality and Safety Strategic Plan, particularly priorities related to improving clinical outcomes, strengthening communication with families, and reducing unwarranted variation in care. The emphasis on discharge safety-netting, follow-up reliability, and care transitions directly addresses known pediatric safety risks and aligns with UNC Children’s patient- and family-centered care goals.

Third, this work reinforces UNC Health’s vision of a Learning Health System by using routinely collected clinical data and structured chart review to drive continuous improvement, clinician feedback, and system-level learning. The proposed model complements existing institutional safety infrastructure, including PEBLI and/or Mortality & Morbidity Improvement rounds and SAFE event reporting, by providing an upstream, high-yield mechanism to identify risks before serious harm occurs.

The project also advances UNC Health's equity goals by incorporating an equity lens into return-visit review, enabling identification of disparities related to race, language, socioeconomic status, and access to follow-up care, and informing targeted interventions to promote equitable outcomes.

Finally, by reducing unnecessary or preventable return visits, the initiative supports organizational priorities related to capacity management, patient flow, and resource stewardship, helping mitigate ED crowding while improving the overall patient and family experience.

#### References

- Sponsor letters – acknowledgement of support for this project

1. IHI Global Trigger Tool for Measuring Adverse Events | Institute for Healthcare Improvement. Accessed December 18, 2025. <https://www.ihl.org/library/white-papers/ihl-global-trigger-tool-measuring-adverse-events>
2. Schull MJ, Guttman A, Leaver CA, et al. Prioritizing performance measurement for emergency department care: consensus on evidence-based quality of care indicators. *CJEM*. 2011;13(5):300-309, E28-43. doi:10.2310/8000.2011.110334
3. Nuñez S, Hexdall A, Aguirre-Jaime A. Unscheduled returns to the emergency department: an outcome of medical errors? *Qual Saf Health Care*. 2006;15(2):102-108. doi:10.1136/qshc.2005.016618
4. Friedman SM, Provan D, Moore S, Hanneman K. Errors, near misses and adverse events in the emergency department: What can patients tell us? *Can J Emerg Med*. 2008;10(5):421-427. doi:10.1017/S1481803500010484
5. Mehta SD, Rees CA, Kandaswamy S, et al. Disparities in Pediatric Emergency Department Revisits Within 7 Days by Disease Process. *Pediatr Emerg Care*. 2025;41(8):e50-e57. doi:10.1097/PEC.0000000000003388
6. Schull MJ, Guttman A, Leaver CA, et al. Prioritizing performance measurement for emergency department care: consensus on evidence-based quality of care indicators. *CJEM*. 2011;13(5):300-309, E28-43. doi:10.2310/8000.2011.110334
7. Stang AS, Straus SE, Crotts J, Johnson DW, Guttman A. Quality indicators for high acuity pediatric conditions. *Pediatrics*. 2013;132(4):752-762. doi:10.1542/peds.2013-0854
8. Ostrow O, Zelinka A, Shim A, Azmat SK, Masood S, Chartier LB. Pediatric Emergency Department Return Visits: An Innovative and Systematic Approach to Promote Quality Improvement and Patient Safety. *Pediatr Emerg Care*. 2020;36(12):e726-e731. doi:10.1097/PEC.0000000000001999
9. Sabbatini AK, Kocher KE, Basu A, Hsia RY. In-Hospital Outcomes and Costs Among Patients Hospitalized During a Return Visit to the Emergency Department. *JAMA*. 2016;315(7):663-671. doi:10.1001/jama.2016.0649

10. Schmidt S, Navanandan N, Cabrera N, Mistry R, DiStefano M. 72-hour Return Quality Improvement (qi) Initiative: Improving the Discharge Process to Decrease Unexpected Returns. *Pediatrics*. 2018;141(1\_MeetingAbstract):335. doi:10.1542/peds.141.1MA4.335
11. Navanandan N, Schmidt SK, Cabrera N, Topoz I, DiStefano MC, Mistry RD. Seventy-two-hour Return Initiative: Improving Emergency Department Discharge to Decrease Returns. *Pediatr Qual Saf*. 2020;5(5):e342. doi:10.1097/pq9.0000000000000342
12. Libov D, Zocchi M, Venkat A, Ruttan T, Allen C, Wilkinson M. Comparing Pediatric 72-Hour Emergency Department Returns: General vs Pediatric Emergency Departments. *West J Emerg Med*. 2025;26(5):1438-1445. doi:10.5811/westjem.21302
13. Emergency Department Return Visit Quality Program - Health Quality Ontario (HQO). Accessed November 30, 2023. <https://www.hqontario.ca/Quality-Improvement/Quality-Improvement-in-Action/Emergency-Department-Return-Visit-Quality-Program>
14. Marchese RF, Taylor A, Voorhis CB, Wall J, Szydlowski EG, Shaw KN. A Framework for Quality Assurance of Pediatric Revisits to the Emergency Department. *Pediatr Emerg Care*. 2021;37(12):e1419-e1424. doi:10.1097/PEC.0000000000002063
15. Chassin MR, Loeb JM. The ongoing quality improvement journey: next stop, high reliability. *Health Aff Proj Hope*. 2011;30(4):559-568. doi:10.1377/hlthaff.2011.0076
16. Grabinski Z, Woo K mun, Akindutire O, et al. Evaluation of a Structured Review Process for Emergency Department Return Visits with Admission. *Jt Comm J Qual Patient Saf*. 2024;50(7):516-527. doi:10.1016/j.jcjq.2024.03.010
17. Smith JA, Fletcher A, Mirea L, Bulloch B. Pediatric Emergency Department Return Visits Within 72 Hours: Caregivers' Motives and Analysis of Ethnic and Primary Language Disparities. *Pediatr Emerg Care*. 2022;38(2):e833. doi:10.1097/PEC.0000000000002415
18. Chartier LB, Ovens H, Hayes E, et al. Improving Quality of Care Through a Mandatory Provincial Audit Program: Ontario's Emergency Department Return Visit Quality Program. *Ann Emerg Med*. 2021;77(2):193-202. doi:10.1016/j.annemergmed.2020.09.449
19. Chartier LB, Jalali H, Seaton MB, et al. Qualitative evaluation of a mandatory provincial programme auditing emergency department return visits. *BMJ Open*. 2021;11(4):e044218. doi:10.1136/bmjopen-2020-044218



DEPARTMENT OF  
PEDIATRICS

PEDIATRIC  
EMERGENCY MEDICINE  
DIVISION

January 4, 2026

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ADMINISTRATIVE  
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Brittney Stone, MBA  
*Division Administrator*

Dear Selection Committee:

It gives me great pleasure to write this letter in strong support of Dr. Marie-Pier Lirette's application to the UNC IHQI Improvement Scholars Program. I recruited Dr. Lirette to our division specifically for her training in QI methodology and her desire to apply that training to system-wide improvements in safety and care. Despite being here for only 4 months, she has already identified a critical gap in our safety procedures and developed a thoughtful and impressive proposal to address it.

Dr. Lirette's proposal to develop a systematic review process for 72-hour return visits to the pediatric emergency department not only addresses a serious need in our department but also touches on some of our institution's most important priorities: improving patient safety, diagnostic accuracy, and providing equitable care. I am confident the systematic approach developed through this work will be a model that could be adopted by emergency departments across our entire healthcare system.

I am fully committed to supporting Dr. Lirette's participation by guaranteeing one academic/administrative day per week for project work and program attendance, providing access to necessary data systems and stakeholders, and championing this work among our hospital leadership.

Dr. Lirette has the skill and the vision to make a real difference here. I have no doubt that the Improvement Scholars Program will provide her with the mentorship, collaborative network, and institutional framework needed to effectively drive meaningful change at our institution. I give her my highest recommendation.

Please feel free to contact me if you need any additional information.

Sincerely,

Cheryl L. Jackson, MD  
Professor of Pediatrics and Emergency Medicine  
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January 5, 2026

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ADMINISTRATIVE STAFF

Brittney Stone, MBA  
*Division Administrator*

To the selection committee:

It is with great pleasure that I write this strong letter of support for Dr. Marie-Pier Lirette's application to the Institute for Healthcare Quality Improvement (IHQI) Scholar Program. I have had the opportunity to work closely with Dr. Lirette since her arrival in the Division of Pediatric Emergency Medicine, and in my role as Medical Director of the Pediatric Emergency Department (PED), I have been consistently impressed by her clinical judgment, professionalism, and systems-focused approach to patient safety and quality improvement.

The PED is a complex and dynamic clinical environment characterized by high acuity, diagnostic uncertainty, frequent transitions of care, and significant operational constraints. Dr. Lirette has demonstrated a rare ability to function effectively in this environment while maintaining a steadfast focus on diagnostic reliability, communication, and equitable care delivery. She is a thoughtful clinician who consistently reflects on how systems, processes, and team dynamics influence patient outcomes—particularly for vulnerable pediatric populations.

Dr. Lirette's proposed IHQI project, which focuses on structured review and learning from pediatric emergency department return visits, addresses a critically important yet underdeveloped area of diagnostic safety and quality surveillance. Return visits represent a powerful opportunity to identify preventable harm, missed diagnostic opportunities, communication failures, and inequities in care that may otherwise remain invisible in traditional quality review structures. Dr. Lirette's work is well grounded in the literature, aligned with national best practices, and directly responsive to institutional priorities including Zero Harm, development of a Learning Health System, and advancing equity in care delivery.

Importantly, this project is not merely academic in nature. Dr. Lirette has demonstrated a clear vision for translating structured return-visit review into actionable learning, timely feedback, and sustainable system improvement within the PED and beyond. Her approach reflects maturity in quality improvement science, an appreciation for non-punitive learning cultures, and a strong understanding of existing governance and quality infrastructure at UNC Children's. I am confident that, with the mentorship and support of the IHQI Scholar Program, she will develop a scalable and durable model that meaningfully improves patient safety.

I have thoroughly reviewed Dr. Lirette's proposed project and am fully committed to supporting her efforts in my capacity as the Medical Director of the PED, an IHQI faculty member, and as the Associate Chief Medical Officer of UNC Children's. I will actively support her in navigating institutional governance, engaging key stakeholders, and leveraging existing quality and safety structures to ensure this work leads to sustainable change. I believe participation in the IHQI Scholar Program will provide Dr. Lirette with advanced coaching, mentorship, and system-level perspective that will further amplify her impact as a clinician-leader within our organization.

Dr. Lirette represents exactly the type of thoughtful, mission-driven physician-leader that the IHQI Scholar Program is designed to support. I give her my strongest endorsement and would be happy to provide additional information if needed. Thank you for your consideration.

Sincerely,



Daniel B. Park, MD, MBA  
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## **Appendix B - Healthcare Provider Questionnaire - Potentially Preventable 72-hour ED return visit**

### **Purpose**

You are being asked to complete this questionnaire as part of the Pediatric Emergency Department Return Visit Review Program. The goal of this program is to identify opportunities to improve diagnostic reliability, patient safety, care processes, and health equity.

This review is non-punitive and focuses on system learning and improvement, not individual performance evaluation.

Completion time: ~3–5 minutes.

Responses are de-identified and used for quality improvement purposes only.

### **1. Reviewer role:**

- A. Primary attending Physician involved in case
- B. Primary Resident involved in case
- C. Advanced Practice Provide
- D. Primary Nurse involved in case
- E. Other: \_\_\_\_\_

**2. Primary reason for return visit (select ONE best option):** *will be based on classification framework created by MDT*

**3. Contributing Factors (Select all that apply):** *will be based on classification framework created by MDT*

- A. Patient / Caregiver Factors
  - a. Language barrier
  - b. Health literacy challenges
  - c. Transportation difficulty
  - d. Financial constraints
  - e. Caregiver concern not fully addressed
  - f. Limited access to follow-up care
  - g. Complex medical history
- B. Provider Factors:
  - a. Diagnostic uncertainty
  - b. Incomplete reassessment prior to discharge
  - c. Cognitive bias (e.g., anchoring, premature closure)
  - d. Suboptimal communication with family
  - e. Inadequate safety-netting instructions
- C. System / Process Factors:
  - a. ED crowding or workload pressures
  - b. Delayed testing or results
  - c. Consultant communication issues

- d. Handover transition issue
- e. Lack of standardized pathway/order set
- f. Follow-up system limitation

**4. In your clinical judgment, could something reasonably have been done differently during the index ED visit?**

- A. Definitely not preventable
- B. Likely not preventable
- C. Possibly preventable
- D. Likely preventable
- E. Definitely preventable

**5. If yes or possibly, what could have been done differently? (Select all that apply)**

- A. Additional history or exam
- B. Different diagnostic testing
- C. Earlier reassessment/observation
- D. Different treatment
- E. Improved discharge instructions
- F. Clearer return precautions
- G. Arranged follow-up
- H. Specialist consultation

**6. Does this case represent a potential opportunity?**

Opportunity Type	Yes	No	Unsure
Quality improvement opportunity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Educational opportunity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic safety learning case	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Systems/process improvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7. Should this case be:**

- A. SAFE Report
- B. Immediate Hot Debrief
- C. Patient Safety Rounds and Improvement case conference

- D. Other
- E. No further review required

**8. Did any of the following potentially contribute to the return visit? (Select all that apply)**

- A. Language or interpreter access barriers
- B. Cultural or communication mismatch
- C. Insurance or financial barriers
- D. Transportation limitations
- E. Access to primary or specialty care
- F. Housing instability
- G. Caregiver work or childcare constraints
- H. Bias or differential treatment concerns
- I. None identified

**9. Overall personal learning/self-reflection value of this case:**

- A. High
- B. Moderate
- C. Low

**10. Key takeaway or recommendation (optional):**

## **Appendix C – Family & Patient Questionnaire – 72 Hour ED Return Visit**

### **Why are we asking you to complete this survey?**

Your child recently returned to the Emergency Department (ED) and was ultimately admitted. We want to learn how we can improve care, communication, and support for families. This survey is not about blame. Your honest feedback helps us make care safer and better for all children and families.

This survey is voluntary and takes about 3–5 minutes to complete. Your responses are confidential and will only be used to improve care.

If you have any questions, feel free to email us at ...

### **1. What best describes you?**

- A. Mother of the patient
- B. Father of the patient
- C. Guardian of the patient
- D. Patient (If > 16 years old)

### **2. After the first ED visit, how well did you understand your child's illness or reason for coming to the ED?**

- A. Very well
- B. Somewhat well
- C. Not very well
- D. Not at all

### **3. Did you feel comfortable caring for your child at home after leaving the ED?**

- A. Yes, completely
- B. Somewhat
- C. No
- D. Not sure

### **4. Were you given clear instructions about when to return to the ED or seek more care?**

- A. Yes
- B. Somewhat
- C. No
- D. Not sure

### **5. What was the main reason you returned to the ED? (Choose one)**

- A. My child's symptoms got worse
- B. Symptoms did not improve
- C. A new concern or symptom developed
- D. We were asked to return
- E. We were worried and wanted reassessment
- F. We could not access follow-up care
- G. We received new test results or a call to return
- H. Other: \_\_\_\_\_

**6. Did any of the following make it harder to manage your child's care at home? (Select all that apply)**

- A. Understanding medical instructions
- B. Language or interpreter needs
- C. Difficulty getting medications
- D. Difficulty arranging follow-up appointments
- E. Transportation challenges
- F. Cost or insurance concerns
- G. Childcare or work responsibilities
- H. Unsure what symptoms were serious
- I. None of the above

**7. Did you feel your concerns were listened to during the first ED visit?**

- A. Always
- B. Usually
- C. Sometimes
- D. No

**8. Did you feel comfortable asking questions before leaving the ED?**

- A. Yes
- B. Somewhat
- C. No

**9. Is there anything that would have helped you feel more prepared to go home? (Select all that apply)**

- A. Clearer written instructions
- B. More time to ask questions
- C. Interpreter or language support
- D. Follow-up appointment arranged before leaving

- E. Phone number or contact for questions
- F. More explanation about expected illness course
- G. Nothing else would have helped
- H. Other: \_\_\_\_\_

**10. Did anything make it harder for your family to get care or follow instructions?**

**(Select all that apply)**

- A. Language differences
- B. Transportation challenges
- C. Difficulty getting time off work
- D. Childcare needs
- E. Cost or insurance issues
- F. Difficulty accessing a primary doctor or specialist
- G. Housing or living situation challenges
- H. No barriers
- I. Prefer not to say

**11. Did you feel your family was treated with respect during your visits?**

- A. Always
- B. Usually
- C. Sometimes
- D. No

**12. Overall, how helpful was the first ED visit in addressing your child's problem?**

- A. Very helpful
- B. Somewhat helpful
- C. Not very helpful
- D. Not helpful

**13. Is there anything we could have done differently to prevent this return visit?**

**(Optional) and/or additional comments you would like to share (Optional)**