Abstract:
The Ann & Robert H. Children's Hospital of Chicago identified dissatisfaction with communication, expectations, and care during evaluation for suspected child abuse, which requires coordination among emergency department (ED) providers, child abuse pediatricians (CAPs), and social workers. The aim of this project was to develop and implement standard care and communication in the evaluation of suspected child abuse. A multidisciplinary project team was convened and utilized quality improvement methodology to complete a barriers assessment and gap analysis. The project team developed a guideline with clear criteria and decision points. A scripting tool was also designed to standardize communication and increase transparency with families. The ED implemented this guideline for suspected child abuse in December 2018. Employing a quality improvement approach to streamlining communication and care for children presenting to the ED for suspected child abuse was effective for ensuring buy-in from team members.

Keywords:
Quality improvement; care team communication; child abuse

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Multidisciplinary Quality Improvement Approach to Standardize Care and Communication for Suspected Child Abuse Arriving to the ED

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According to the National Child Abuse and Neglect Data System, approximately 676 000 children were victims of maltreatment in 2017 with more than 18% experiencing physical abuse, either exclusively or in combination with another maltreatment type.[1] Of the estimated 1720 children

who died of abuse and neglect, nearly 42% of those fatalities were due to physical abuse. In Illinois, the total number of investigations initiated by Child Protective Services increased approximately 22% from 2014 to nearly 87 000 investigations in 2018, with 30% occurring in the Cook County region, which includes the City of Chicago.[2] While the percentage of indicated family reports increased slightly from 2014 to 2018 to more than 25%, the number of child abuse pediatricians (CAPs) remains low in the state of Illinois at 14 board-certified providers.

Ann and Robert H. Lurie Children's Hospital of Chicago is an urban, tertiary academic children's hospital with an emergency department (ED) patient volume of 58 000 visits annually. The Division of Child Abuse Pediatrics has four board-certified CAPs, more than one-quarter of the specialists in the state. The ED evaluates nearly 300 children a year for suspected physical child abuse, relying on an interdisciplinary team of ED physicians, advanced practice providers, and nurses, CAPs, social workers, and other subspecialists such as radiologists or orthopedic specialists to provide high quality care. The Illinois Department of Children and Family Services (DCFS) refers a high number of children to Lurie Children's for medical evaluation by a CAP specialist on reported allegations of child abuse or maltreatment. Referrals also come directly from the community and in approximately 30% of these cases a report has already been made by another agency to DCFS and requires appropriate medical evaluation.

PROBLEM DEFINITION

The ED is the entry point to the hospital for medical evaluation for most cases of suspected child abuse and serves both families coming directly to the ED for care and treatment and those referred by community pediatricians, hospitals, and DCFS. As a high-volume, academic teaching environment, multiple hand-offs regularly occur between providers and nursing staff, which may give rise to undelegated roles and responsibilities for care. The various team members work in different locations and at different times of day, relying on multiple hand-offs during an encounter. Members of the care team, including CAPs and ED providers, reported dissatisfaction with team communication, especially for evaluations of physical abuse concerns. Families also reported dissatisfaction with communication and transparency during the ED encounter.

PROJECT AIM

In July 2018, Lurie Children's Hospital of Chicago leadership convened a group of stakeholders in order to establish a standard approach to care for children who present to the ED for suspected physical abuse. The project team was composed of ED physicians (including fellows), ED nurses, ED advanced practice providers (APPs), CAPs (including fellows) social workers, clinical quality improvement specialists, and representatives of Lurie Children's Patient and Family Experience (PFE) team. Evidence suggests that quality improvement approaches have been effective in increasing the adherence to guidelines for the evaluation of suspected child abuse.[3] The project aim was to standardize communication among the care team and with the families. The project team employed quality improvement methodologies to engage front-line staff and other key stakeholders to develop small tests of change aimed at decreasing variation in care, clearly define roles and responsibilities in the interdisciplinary team, and ultimately improve communication throughout the process.

METHODS

Barriers Assessment

A thorough barriers assessment was conducted through individual interviews with front line staff and key stakeholders, as well as during group meetings with stakeholders. Family feedback was also gathered to understand barriers felt by patients and caregivers. The project team developed a cause-and-effect diagram to reflect key and secondary drivers.

Rapid Improvement Events

The project team then facilitated two rapid improvement events to gather staff and providers involved in the assessment and evaluation of these children in the ED. The group included ED faculty, fellows, and residents, APPs from the ED, nurses, CAPs, social workers, operational leadership, and child life specialists. The first event focused on process mapping the current workflows, during which the group identified 44 gaps in communication and care. The second event was then focused on developing a future state, in which proposed workflows were streamlined to enhance communication and address the previously identified gaps.

Following the rapid improvement event and follow-up sessions, the project team developed a key driver diagram, with interventions prioritized to

address key and secondary drivers to achieve the project aim. The project team used this tool to organize known barriers, come to consensus on which changes to test in the workflows, and articulate how the proposed changes may lead to improvement.[4] While barriers were identified in communicating and working with DCFS, it was determined to be out of scope of our improvement project because DCFS is a separate entity and has its own mandate for investigating reports of abuse. The key drivers for this project were the impact to staff and family of the medical evaluation for child abuse, inconsistent communication and practice among team members, and variable workflows in the ED during each patient encounter (Figure 1).

Family Feedback Session

Families who had been through an evaluation of suspected child abuse and subsequently cleared by DCFS provided feedback to hospital leadership, clinical quality improvement and patient and family experience staff. This feedback helped inform both the barriers assessment and the proposed interventions. Individual family members gave feedback on their experience, expressing confusion between roles, a lack of support from the care team once the psychosocial assessment was complete, and lack of rationale for next steps. Following the development of the future state workflows, three families were asked to review proposed updates, provide input, and find additional opportunities to improve communication and transparency.

RESULTS

The interventions the project team chose to focus on included: establishing a care guideline for suspected child abuse, scripting key communication points to the families throughout the process, and gathering feedback from families on the improvement efforts.

Care Guideline

The project team developed an algorithm for all patients who meet criteria for the hospital-wide child maltreatment policy. The algorithm starts at patient presentation in the ED and then clearly delineates actions by role throughout the patient encounter concluding with ED disposition. The guideline helps to communicate the expectations of a psychosocial assessment completed by the social worker for all patients who meet criteria for suspected physical abuse. It also establishes new huddle points within the process for care team members to communicate concerns or recommendations for further evaluation. In addition to touch points for increased team communication (huddles), the care guideline establishes "teaming" touch-points where the interdisciplinary team members all gather to clarify a decision point, such as ordering medical imaging, a consult, or

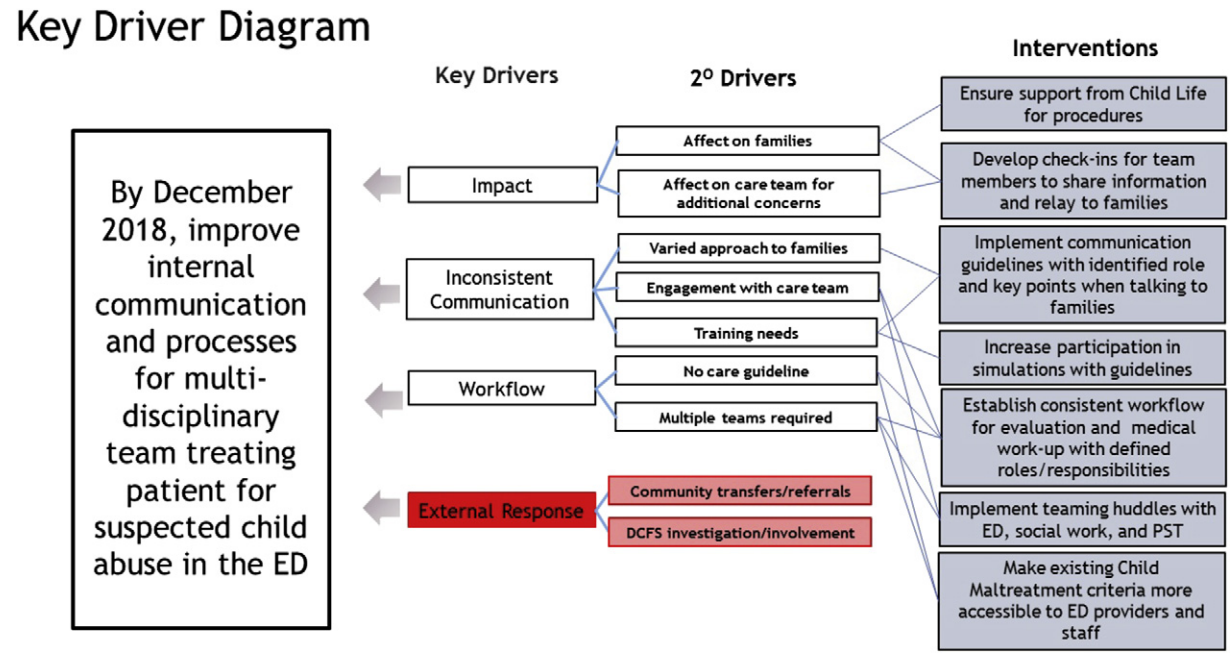

Figure 1. Key driver diagram.

additional laboratory evaluations. These teaming discussions also allow physicians and staff to come to agreement on the care plan and involve ED physicians and CAPs, as well as other disciplines. The teaming points also ensure rationale for the treatment plan is made clear to the entire care team and reinforces who will be communicating decisions to the family. This care guideline was implemented in the ED at the end of December 2018.

Scripting Family Communication

One of the key drivers that came out of barriers assessment was inconsistent communication throughout the ED encounter, both internally and with families. While the huddles and teaming within the care guidelines seek to improve internal communication, the project team also identified key points in the process to improve communication and transparency with families. Members of the project team finalized recommended scripts to talk to families to include as an appendix within the care guideline. The scripting includes who on the care team is responsible for discussing information with the family or caregiver, such as the need for a psychosocial assessment (ED physician), the introduction of the involvement of child abuse pediatrician (social worker), the recommended medical care plan (ED physician) or differentiating the role of DCFS (social worker). The recommended language repeatedly explains the care guideline criteria and the established child maltreatment policy for further assessment. The scripting component is an important addition to training of social workers and other members of the care team on how to explain the ED's standard process for evaluating for suspected child abuse.

DISCUSSION

Ann & Robert H. Lurie Children's Hospital of Chicago has experience employing quality improvement methodology to achieve improvements in clinical care, including a clinical care guideline program. This undertaking utilized the same tools and took similar approaches, but focused primarily on strengthening communication and therefore collaboration. By pulling together the multidisciplinary team and ensuring representation across the care team, roles and responsibilities throughout the process were clarified and delineated. Using quality improvement approaches also allowed the project team to champion the interventions as tests of change, consistently seeking feedback from front line staff to improve the guidelines and scripting tool.

LIMITATIONS

While our efforts led to the development of tools to achieve our aim, limitations must be acknowledged. The guideline is designed for general use in the ED to standardize communication, but is not specific to care and evaluation required for discrete types of injury and abuse. Similarly, the scripting tool is a prompt for direct service providers to make sure family check-ins occur at standard points during the encounter, but is general and may not provide appropriate responses to family questions.

CONCLUSIONS

The quality improvement approach was effective in engaging a multi-disciplinary group and designing interventions to improve communication and care in the evaluation of suspected child abuse in the ED. The next steps for this initiative include data collection and analysis on the implementation and effectiveness of the communication tools for the care team and the families; the development of clinical decision support in the electronic medical record to alert the social workers earlier in the ED encounter when a child meets the criteria for evaluation of child maltreatment, and enhanced educational opportunities through simulation for medical providers in utilizing the scripting tool.

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