



Enhancing Nurse Practice in Paediatric Emergency Departments

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Received: 01-Apr-2023, Manuscript No. jrm-23-94020; **Editor assigned:** 04-Apr-2023, PreQC No. jrm-23-94020(PQ); **Reviewed:** 18-Apr-2023, QC No. jrm-23-94020; **Revised:** 22-Apr-2023, Manuscript No. jrm-23-94020(R); **Published:** 28-Apr-2023, DOI: 10.14303/2315-568X.2022.37

Abstract

The use of nurse-initiated treatments is expanding in order to enhance the efficiency and calibre of care given to kids who visit the emergency room. To illustrate how Advanced Nursing Directives effectively incorporate validated clinical scoring systems into practise, a clinical pathway for kids who arrive at our paediatric emergency department (PED) with a suspected appendicitis will be developed. The most recent studies on nurse-initiated protocols, validated clinical grading systems for emergency rooms, and Advanced Nursing Directives will all be included in this review (ANDs). Two further instances of advanced nursing directives for typical clinical PED presentations will be provided last but not least.

Keywords: Nurse practice, Paediatric nursing, Advanced nursing, Treatment, Healthcare

INTRODUCTION

International media coverage has focused heavily on the problem of lengthy ED wait times and the challenge of finding acute inpatient hospital beds. Some people think that increased ED utilisation as primary care facilities and inpatient overcrowding are the main causes of ED overpopulation. In order to improve patient care, healthcare professionals are employing cutting-edge strategies, such as nurse-initiated protocols and Advanced Nursing Directives (ANDs) (Goldman RD, 2009).

Similar to many other healthcare institutions, the Pediatric Emergency Department (PED) of the Alberta Children's Hospital (ACH) has seen notable increases in patient visits along with the corresponding development in ED length of stay (LOS). We developed protocols to make sure children who meet the requirements of the unit-based nursing protocol receive prompt, evidence-based nursing care before being assessed by an emergency physician. We purposefully focused on three of the most common PED presentations (asthma, vomiting and diarrhoea, and suspected appendicitis) (Plint AC, 2004).

A significant academic collaboration looked at the present

clinical scoring systems and on-going research pertinent to these common paediatric medical issues in order to develop hospital-based care maps. It is necessary to review the theoretical foundations of nurse-driven protocols, the evidence underpinning clinical scoring systems, and how the two integrate to create these three areas of knowledge. Recent research has highlighted significant practise discrepancies in paediatric emergency medicine. It makes plausible that different levels of care could result in different levels of outcome quality. According to Jain et al., variations in obtaining laboratory and imaging examinations as well as time of intravenous commencement have a significant impact on outcome indicators like a patient's length of stay. On the other hand, when care is guided by evidence-based practise, a reduction in treatment variability should lead to improvements in overall quality (Cutts B, 1999).

The application of clinical pathways based on the healthcare sector, commonly referred to as "care maps," is one practise standardisation technique that has been shown to improve patient care results. Routes are organised, evidence-based algorithms that visually direct how a team of healthcare professionals deliver patient care. While a number of pathways are developed by various practitioners

involved in providing direct patient care, these guidelines can work as patient-centered and location-specific tools. The "multispecialty," best-practice criteria for a patient's overall experience is outlined in numerous care maps in order to provide an effective overall pathway for patient treatment. These recommendations are based on a cooperation of recent research in specific healthcare fields. These regulations standardise patient care from the time they are admitted to the hospital until they are sent home, reducing practitioner care variability, improving inter- and intradepartmental communication, and ideally promoting high-quality patient outcomes (LeClerc CM, et al., 2008).

For instance, children with compromised immune systems might not show the usual signs of appendicitis. Staff should be made aware of the clinical pathway's reasons for exclusion prior to implementation, and those reasons should be highlighted there to alert employees. Naturally, nurses and other members of the healthcare team should feel empowered to use their critical thinking skills and to act as patient advocates if they feel that the care their patient is receiving is ineffective. In the event that projected patient results are not achieved when a patient is following a clinical pathway, the team should feel comfortable adopting other intervention strategies (Perrin A, 2005).

When a clinical pathway is followed, teamwork and great communication are still essential elements of patient care. One obvious argument against using patient care maps claims that doing so would lead to "cookbook medicine." In this situation, it is important to emphasise the need of developing performance feedback loops, both in terms of patient outcomes and their impact on or perception of healthcare personnel. Practice outcomes should be considered in updated clinical pathways. The documentation of the patient's response to the care is an essential sort of feedback that can aid in future clinical route improvements. Although each of the clinical practice guidelines, clinical prediction rules/clinical scoring systems, and clinical pathways has its own definitions and explanations, they all share the goal of improving treatment quality through standardisation of delivery (deForest EK, 2010).

DISCUSSION

When nursing first began, basic duties included "Attributes like independence and assertiveness were not cultivated," "nurses' expertise (was) disregarded or overestimated," and "new workers were responsible for cooking, cleaning, and caring. The traditional paradigms for nursing care delivery "could not support effective, safe, and efficient care anymore. Throughout the past century, nurses have started to "push the boundaries of established practise and take on areas of care that are typically identified with that of doctors. This is due to increases in knowledge, clinical competency, and autonomy. Nowadays, as their scope of practise broadens to meet the evolving demands in healthcare, "nurses are providing increasing focus to

independent nursing interventions. Many nurse-initiated practises have been adopted globally in adult and paediatric emergency departments, critical care units, medical units, mental health units, and rural facilities, according to a review of recent research (Albarran JW, 2004).

These studies describe improvements in a variety of patient care outcomes as a result of nurse-initiated care, including blood glucose regulation, reduction in intubation length, reduction in the requirement for physical restraint, improved pain control, improved outcomes for patients with myocardial infarction, reduction in the number of catheter-associated and reduction in time to first treatment for asthmatic patients. In their 2007 article, Wong et al., for instance, claim that "triage nurse-initiated pain therapy has been established as a useful technique for pain management" (Kajermo KN, 2008).

If the nursing team determines that a child meets the criteria, management measures may be used. Establishing a peripheral intravenous line, initiating the administration of fluids, gathering laboratory samples (blood and urine), administering conventional medications, and preparing for additional study or care are some of these potential strategies. Although common in many adult-oriented care contexts, these can be quite unpleasant to a young child, so it's imperative to take all precautions to prevent unnecessarily traumatic situations. So, it is essential to carefully choose the appropriate patient population. Because they are based on impartial clinical prediction rules/scoring systems, ANDs are the ideal instrument for this endeavour (Brown CE, 2009).

Then, how does one go about developing and utilising ANDs? A few of the models that are available to assist organisations in creating and assessing high-quality projects are FOCUS, Six Sigma, and the traditional Plan-Do-Study-Act cycle. Below, we give a summary of the FOCUS model's five steps for quality improvement, which is a systematic approach that might be helpful. They entail identifying a process that needs to be improved, assembling a team of experts, clarifying the information, locating the sources of process variance, and selecting modifications for the process.

The following succinct summaries of each step of the FOCUS approach provide an example of AND development using the appendicitis care map from the Alberta Children's Hospital. In order to put things into perspective, it should be noted that the Alberta Children's Hospital (ACH) covers a catchment area of about 1.8 million residents in the three westernmost provinces of Canada: Southern Alberta, Eastern British Columbia, and Western Saskatchewan. Almost 60 000 patients typically attend the ACH PED each year.

Examples of clinical outcomes that all too frequently trigger quality improvement initiatives in the healthcare sector include a prescription error, a patient complaint, an administrative safety assessment, etc. While it is

obvious that these activities help to improve treatment, proactive methods offer a superior model. One technique for determining a process to enhance would be to use a methodology based on high-impact scenarios, such as those with a high frequency of presentation (such paediatric asthma in the ED) or high potential for poor effects (i.e., sepsis). In the Calgary Health Area, several reports of appendicitis-related adverse effects in both the paediatric and adult populations prompted the organisation of a regional safety review.

Recommendation among the recommendations that came out of the assessment was a system for standardising the treatment given to patients with probable appendicitis. Moreover, one of the PED's most typical manifestations is stomach pain. Although there are many potential diagnoses, appendicitis should be taken seriously because it is the most frequent non-traumatic surgical emergency in children and the most common reason for admission to the ACH ED. Appendicitis was therefore the ideal target for activities relating to quality improvement because to its high prevalence, potential for negative effects, and recent publicity.

A child who presents to the ED needs care that is based on collaboration. Multidisciplinary teamwork is essential throughout the patient journey, from the first interaction with nursing personnel at triage, to the review of bedside nurses, the assessment by PED physicians, and consultations by other experts. Approaching important stakeholders with thinking is necessary for the team's establishment. Initial representation from Emergency Medicine, Emergency Nursing, Surgery, Anesthesia, Diagnostic Imaging, and Infectious Disease collaborated in the process review while the ACH Appendicitis Care Map was being developed. Although we thought we had consulted with all relevant parties at first, it became clear that pharmacy, administrative services, and graphic design would need to be represented as well. For instance, it was difficult without the cooperation of pharmacy representation to deploy weight-based, premixed mini-bags of antibiotics, which required a radical change in pharmacy stocking and administration as well as new order entry procedures.

But one needs to go much further. What measures must be taken in order to receive an ultrasound in terms of investigations? Worse still, how does one quickly fill a young child's bladder who is NPO (nil per os)? The purpose of knowledge clarification comprises both an understanding of the most recent research on the accuracy of an ultrasound for certain pathology with and without adequate bladder filling as well as the steps necessary to obtain a high-quality ultrasound in the specific clinical situation. An acceptable clinical prediction rule for integration in an AND can be chosen during the knowledge clarification step (Hutchinson AM, 2004).

CONCLUSION

To promote consistency, efficiency, efficacy, quality, and safety in medical treatment, nurse-driven protocols are known to offer a stronger scientific foundation for clinical practise. Nurses can use their advanced assessment abilities and apply already validated research by integrating previously validated; evidence-based clinical prediction rules/scoring systems into nursing care in the paediatric emergency department through the use of Advanced Nursing Directives. Advanced Nursing Directives will enable nurses to have a bigger impact on patient care and outcomes in the future when they are implemented in ED practise and other clinical settings.

CONFLICT OF INTEREST

None

ACKNOWLEDGMENT

None

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