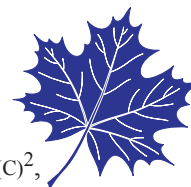


Improving the Quality of Care for Older Adults Using Evidence-Informed Clinical Care Pathways



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ABSTRACT

Background

There has been an intensified focus on quality initiatives within health care. Clinical Networks have been established in Alberta as a structure to improve care within and across settings. One method used by Clinical Networks to improve care is clinical care pathways. The objective of this study was to evaluate an evidence-informed hip fracture acute care pathway before broad implementation.

Methods

The pathway was developed by a provincial Clinical Network and implemented at four of 14 hospitals across the province. Within four months of implementing the pathway, experienced interviewers conducted focus groups with end-users at the four sites. Domains of inquiry focused on identifying barriers and facilitators to use of the pathway.

Results

Fifteen physicians and 29 other health-care providers participated in eight focus groups. Common themes identified around the pathway order sets included issues with format, workflow and workload, and dissemination. The patient/family educational materials were deemed to be beneficial. Health-care provider education required better support. Overall the pathway was seen to be comprehensive. However, communication about the pathway could have been improved.

Conclusions

This care model is novel in that it combines the concepts of clinical networks, care pathways, and knowledge translation in an effort to provide high-quality, evidence-informed care in a standardized equitable manner across a diverse geographic area.

Key words: clinical networks, knowledge translation, clinical care pathway

INTRODUCTION

There has been an intensified focus on patient safety and quality initiatives by many organizations. Clinical Networks have been established as a structure to improve quality, access, standardization, cost-effectiveness, and sustainability of care within and across settings.⁽¹⁾ The goal of Clinical Networks is to improve patient, provider, and system outcomes by engaging a multidisciplinary team of clinicians and other stakeholders in decision-making, and planning and development of innovations to improve care delivery. Alberta Health Services (AHS), Alberta's provincial health-care delivery authority, has established Strategic Clinical Networks within the province in an effort to standardize care and address care gaps. This includes the Bone & Joint Strategic Clinical Network, which is tasked with improving the care provided to patients with bone and joint disorders. One key area of focus for the Network is hip fractures. Hip fractures are a complication associated with falls among the frail older adult. Alberta has a population of approximately 4 million, among whom about 2,500 suffer a hip fracture each year. A Trauma Working Group from within the Bone & Joint Network has been tasked with developing and implementing an evidence-informed provincial care pathway for hip fracture patients.

Effective interventions from clinical trials are not always easily implemented into routine care.⁽²⁾ The finding that providing evidence from clinical research is necessary but not sufficient for optimal care provision has created interest in knowledge translation.^(3,4) Knowledge translation is a dynamic and iterative process that includes synthesis, dissemination, exchange, and ethically sound application of knowledge within a complex system.⁽⁵⁾ Clinical care pathways are a method of knowledge translation that helps to coordinate evidence-informed care between health-care disciplines in an effort to improve the care provided to well-defined patient groups.⁽⁶⁾

Using these concepts, a multidisciplinary group of clinicians and stakeholders from the provincial Trauma Working Group of the AHS Bone & Joint Strategic Clinical Network developed an evidence-informed hip fracture acute care clinical pathway. We developed a strategic alliance between orthopedic surgery, geriatrics, internal medicine, emergency medicine, family medicine, radiology, anesthesiology, nursing, rehabilitation services, pharmacy, nutrition, health-care management, information technology, and project management. To develop the pathway, we drew on the knowledge to action cycle developed by Graham and colleagues.⁽⁷⁾ The objective of this project was to evaluate the developed pathway before broadly implementing it across the province.

METHODS

The care pathway was developed using evidence from systematic reviews, clinical practice guidelines, librarian-assisted literature reviews and, when necessary, expert opinion. It was implemented at four of the 14 hospitals treating hip fractures across the province of Alberta. These pilot sites are representative of the orthopedic care provided within Alberta (i.e., urban and rural; electronic medical records and paper-based medical records; academic and regional). The components of the pathway include i) clinical decision support (i.e., order sets, discharge prescription forms, discharge letters for primary care providers); ii) printed patient/family education materials (e.g., handouts about the surgery, post-operative care, delirium and falls prevention, simplified versions of the care pathway posted at the bedside); and iii) staff educational support (in-servicing, pocket cards, detailed care-pathway postings). The pathway incorporates the current best evidence aimed at providing optimal care to hip fracture patients, including addressing delirium, falls, osteoporosis, functional status, pain, DVT prophylaxis, and discharge planning.

Within four months of implementing the pathway, experienced interviewers conducted semi-structured focus groups with end-users at the pilot sites. Two focus groups were conducted at each site, one involving physicians and one involving the other clinical team members, for a total of eight focus groups. Focus group participants were recruited through postings on the units, word of mouth, and e-mail. Focus group participants were not remunerated for participating. Domains of inquiry focused on identifying barriers and facilitators to use of the pathway. Two investigators independently analyzed the focus group data using a content analysis approach. Common themes were identified through independent review of the focus group transcripts, agreed upon through consensus and categorized.

RESULTS

Fifteen physicians, including orthopedic surgeons, geriatricians, hospitalists, emergency medicine physicians, internists, radiologists, and resident trainees, participated in the four

physician focus groups. The four non-physician focus groups included a total of 29 individuals, with representation from nursing, physiotherapy, occupational therapy, pharmacy, nursing management, and clerical staff. Common themes around the order sets included issues with format and organization such as i) a need to shorten the order sets and simplify instructions, and ii) a desire to have basic nursing care instructions moved from the order sets to the posted pathway. The physician focus groups did not identify issues with workflow (e.g., inconsistent processes) or workload (e.g., increased vs. improved). However, they were identified as issues among one-third of those in the non-physician groups.

Although overall awareness of the order sets was good, many participants were unaware of the order sets developed for use in less common clinical situations such as at rural sites and for transferring patients between sites. The patient/family educational materials were deemed to be beneficial, based on the health-care providers' subjective experiences. In-servicing, particularly around delirium screening, was identified as a topic requiring better support. Overall, the pathway was viewed as comprehensive and it was thought that it would improve patient care. However, communication about the pathway could have been improved to help with dissemination. Identified environmental barriers included inadequate staffing, and the physicians identified downstream obstructions to discharge, such as limitations in rehabilitation beds.

DISCUSSION

The information from the focus groups, along with evidence about effective knowledge translation tools, has been used to develop a province-wide implementation plan. Strategies such as education for health-care professionals, identification of local opinion leaders, dissemination of educational materials, and use of decision support (e.g., order sets) can all produce a change in clinician behavior.⁽⁸⁻¹¹⁾ Combining multiple strategies is probably most effective. In addition, the use of educational resources targeted towards patients and families can be effective when combined with strategies targeted towards the health-care team.^(8,11)

Moving forward with the province-wide implementation, we chose to take a multifaceted approach. This included optimizing the resources already developed and supplementing them with additional strategies based on feedback from the focus groups. As a first step, we developed a working group to guide implementation. During the initial pilot, no formalized communication structure was utilized and, instead, we relied on awareness through Clinical Network member communications with end-user groups. Therefore, the broader implementation strategy included a formal announcement prior to the provincial launch, using a telehealth conference. In addition, opinion leaders were identified at each site, including physician leads, nursing management leads, and rehabilitation leads. A needs assessment was conducted at each site to further identify site-specific barriers and facilitators to

implementation, considering the need to adapt strategies to the local environment.

The order sets were modified to address the organizational and formatting concerns identified by the focus groups. All educational materials have been posted on an internal provincial website to improve access and ease of dissemination. Additional supports have been identified to help support in-servicing, including telehealth seminars and development of educational videos made accessible through links on the provincial website. Provincial learning workshops for the site leads have been held, guided by the Institute for Healthcare Improvement (IHI) Collaborative program methodology.⁽¹²⁾ The pathway is currently being implemented across the province, with each site determining the exact implementation date.

Successful knowledge translation requires an iterative, dynamic approach that involves all stakeholders.⁽⁴⁾ Clinical Networks, comprised of multidisciplinary teams of clinicians and other stakeholders, are well positioned to carry out knowledge translation activities. A knowledge translation strategy that utilizes the knowledge-to-action cycle can help ensure effective implementation of knowledge into practice.⁽⁷⁾ This includes identification of the knowledge gap, development of evidence-informed knowledge tools relevant to practice, assessment of barriers to knowledge use, and tailoring of the implementation strategy. Post-implementation, the Bone and Joint Strategic Clinical Network will monitor knowledge use and outcomes through the measurement of key performance indicators agreed upon by provincial stakeholders, which are consistent with National standards. Each site will develop scorecards, where they will monitor their performance on several performance indicators chosen by the sites from a list of options.⁽¹³⁾ The scorecards will additionally serve as a mechanism for monitoring sustainability of this initiative over time.

CONCLUSION

This model for providing clinical care is novel in that it combines the concepts of clinical networks, clinical care pathways, and knowledge translation strategies in an effort to provide high-quality, evidence-informed care in a standardized equitable manner across a large diverse geographic area.

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CONFLICT OF INTEREST DISCLOSURES

The authors were members of the AHS Bone and Joint Strategic Clinical Network Trauma Working Group. Dr.

Holroyd-Leduc is the Scientific Director of the AHS Seniors' Health Strategic Clinical Network. The authors declare that no conflicts of interest exist.

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