

Commentary

Why aren't clinical guidelines used in practice?

What we learned from our Twitter Chat

Alison Twycross and Christine T. Chambers

Introduction

Clinical guidelines are recommendations on the appropriate treatment and care of people with specific diseases and conditions. They are based on the best available evidence and are designed to make it easier to ensure that evidence-based care is provided. The first clinical guidelines relating to pain management in general were published in the early 1990s. Despite the proliferation of such guidelines, children still experience moderate to severe pain while in hospital and when receiving care in the community (Twycross & Finley, 2013; Birnie et al., 2014; Kozlowski et al., 2014), and current guidelines are not always adhered to in practice (Stevens et al., 2012; Twycross et al., 2013a). Why is this the case when the evidence to guide practice is readily available in the form of clinical guidelines? (See Box 1 for a list of many of the current guidelines relating to pediatric pain management.) This issue was the focus of a Twitter Chat organized by Evidence Based Nursing (see www.ebn.bmj.com) in June 2014 and hosted by Dr. Christine Chambers (@DrCCChambers) and Dr. Alison Twycross (@alitlewy – tweeting as EBNursingBMJ). A Twitter Chat involves a group of Twitter users meeting at a predetermined time to discuss a certain topic, using a designated hashtag (#), a convention used in Twitter to classify topics of discussion. Each contributor adds the designated hashtag to the end of their Tweets enabling people to follow the conversation. This commentary provides a summary of the hour-long discussion drawing on the relevant research literature to

support the perspectives offered. Much of the discussion focused on pain in children; where the examples were related to adult pain management, this is indicated in the text. Where Tweets are used as quotes to illustrate the points being made, these are in italics and indented.

Can the lack of implementation of clinical guidelines be attributed to their overall quality?

The need to ensure the quality of clinical guidelines was highlighted. This is particularly pertinent as a recent review of pediatric clinical guidelines for acute procedural pain concluded a need for greater rigor in the process used to gather and synthesize information for the formulation of guidelines (Lee et al., 2014). Participants were surprised that the quality assurance process of clinical guidelines was not always as good as it could be. One participant contrasted this to her own previous experience developing such guidelines:

Surprises me this isn't the case. When I was involved with RCN [Royal College of Nursing] guidelines in 1999 process was very rigorous. (@EBNursingBMJ)

Participants felt all guidelines should be reviewed through a critical lens for rigor and clinical utility, as well as conciseness and accessibility, prior to implementation. Clinical guidelines that included an evaluation were seen as helpful and as a way of addressing the barriers to optimal pain management and an opportunity to standardize practice.

Box 1: Pain standards and guidelines**Australia and New Zealand**

Macintyre PE, Schug SA, Scott DA, Visser EJ, Walker SM, APM:SE Working Group of the Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine. Acute pain management: scientific evidence (3rd ed.). Melbourne, 2010. www.anzca.edu.au/resources/books-and-publications/Acute%20pain%20management%20-%20scientific%20evidence%20-%20third%20edition.pdf
Chapter 10 relates to the pediatric patient.

Spence K, Henderson-Smart D, New K, Evans C, Whitelaw J, Woolnough R, et al. Evidenced-based clinical practice guideline for management of newborn pain. J Paediatr Child Health 2010;46:184-192.
www.pubmed.gov/20105248

Canada

Taddio A, Appleton M, Bortolussi R, Chambers C, Dubey V, Halperin S, et al. Reducing the pain of childhood vaccination: an evidence-based clinical practice guideline. CMAJ 2010;182:E843-E855.
www.pubmed.gov/21098062

International Consensus Document

American Academy of Pediatrics, Committee on Fetus and Newborn Section on Surgery, Section on Anesthesiology and Pain Medicine, Canadian Paediatric Society, Fetus and Newborn Committee. Prevention and management of pain in the neonate: an update. Pediatrics 2006;118:2231-2241.
www.pediatrics.org/cgi/doi/10.1542/peds.2006-2277. Reaffirmed May 2010.

United Kingdom

Royal College of Nursing. The recognition and assessment of acute pain in children. Update of full guideline. London, 2009. www.rcn.org.uk/_data/assets/pdf_file/0004/269185/003542.pdf

Association of Paediatric Anaesthetists of Great Britain and Ireland. Good practice in postoperative and procedural pain management (2nd ed.). Paediatr Anaesth 2012;22 Suppl 1:1-79.
<http://onlinelibrary.wiley.com/doi/10.1111/j.1460-9592.2012.03838.x/epdf>

USA (not specific to the care of children)

American Society of Anesthesiologists Task Force on Acute Pain Management. Practice guidelines for acute pain management in the perioperative setting: an updated report. Anesthesiology 2012;116:248-273.
<http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1933589>

Czarnecki ML, Turner HN, Collins PM, Doellman D, Wrona S, Reynolds J. Procedural pain management: a position statement with clinical practice recommendations. Pain Manag Nurs 2011;12:95-111.
www.aspmn.org/documents/Czarnecki_ProcPainPositionStatement_2011.pdf

World Health Organization

WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses. Geneva, 2012. http://whqlibdoc.who.int/publications/2012/9789241548120_Guidelines.pdf

Do health care practitioners' views about the importance of pain management influence the uptake of clinical guidelines?

Just having a good quality guideline does not mean it will be implemented in practice. In the Lee et al. (2014) review, the vaccination guideline (Taddio et al., 2010) scored the best for quality, yet is still not being used in practice. This led to participants reflecting on whether the implementation of guidelines had more to do with the challenges of getting health care practitioners to buy into the significance of pain as a problem. Sometimes the issue is getting practitioners to think that managing pain effectively is important:

More to do with challenges getting them to buy into the significance of vac [vaccination] pain as a prob. (@DrCChambers)

If vaccination pain, for example, isn't seen as a problem people aren't going to bother with a clinical practice guideline. One participant wondered:

[Whether] including clinicians in guidelines development improves uptake? (@EBNursingBMJ)

Evidence from other studies suggests that health care professionals' beliefs about pain management may impact their pain management practices and thus the implementation of clinical guidelines. Nurses in one study were observed to negate (ignore) children's pain (Byrne et al., 2001) and it has also been suggested that children over-report their pain (Vincent & Denyes, 2004). Nurses may also believe that pain management is synonymous with administering analgesic drugs alone and not see the need to evaluate the effectiveness of interventions or to use other pain-relieving strategies (Twycross, 2004; Twycross et al., 2013a). Pain management may be given a lower priority than other nursing tasks (Twycross, 1999). There is a need to explore the impact of health care professionals' individual beliefs on pain care further and to identify ways of successfully challenging these beliefs.

Does organizational culture influence the use of clinical guidelines?

There was some discussion relating to the influence of organizational culture and whether this explained, at least in part, why clinical guidelines aren't used in practice. Participants suggested peer pressure might be an issue:

I wonder whether peer pressure is part of the issue. Do hcp [health care professionals] have a need to conform to customs on the ward/unit to fit in? (@EBNursingBMJ)

There was also recognition of the need for buy in from all levels of the organization from the highest levels of hospital administration downward.

Change starts at the CEO [Chief Executive Officer] level, assessing for pain shouldn't be an option, but a requirement. Policies should be written. (@AshleighTownley)

Over the past decade there has been a growing awareness that a unit (ward) has a set of informal rules that determine how pain is managed. This was demonstrated by the results of an ethnographic study on two (adult) units in one hospital in the USA (Lauzon Clabo, 2008). Participants described a clear but different pattern of pain assessment on each ward. The social context of the ward appeared to influence practices. Further, in one Canadian study, pediatric nurses described the unit's pain management culture as giving pain medications regularly even if they are prescribed to be taken as needed; this appeared to be the factor that impacted most on practice (Twycross et al., 2013a). Another study exploring neonatal pain management also found organizational context affected practices (Stevens et al., 2011).

Can the use of knowledge translation strategies help increase the implementation of clinical guidelines into practice?

Knowledge translation is the process by which specific research-based knowledge (science) is implemented in practice (Estabrooks et al., 2003). Participants wondered:

With all the evidence and guidelines could knowledge translation be a barrier?

(@cate_lar)

I do wonder whether knowledge translation is the key.... (@EBNursingBMJ)

Using pain champions and campaigns to support the implementation of clinical guidelines

Participants felt that other barriers included time, willingness from clinicians, managers, the system and integrating clinical guidelines into current clinic flow. The use of huddles¹ and champions² to facilitate change to new guidelines was discussed:

I think having a champion is absolutely critical. So how do we identify and recruit champions? (@DrCCChambers)

Love the idea of huddles to support imp [implementation]. Another role for champions? (@EBNursingBMJ)

A literature review carried out by one participant had found that health care providers tended to receive, retain and use information more readily from other health care providers (champions) than from other sources of information. Another participant suggested that the use of mentors to change practice relates to the management of change and the length of time it takes to adopt changes. Overall participants felt the use of pain champions was essential and that learning from peers was integral to providing optimal care.

Human sources of information have been shown to be important in changing practices and in the dissemination of research evidence into practice (Spenceley et al., 2008). Indeed, a systematic review concluded that the use of local opinion leaders was an effective way of promoting evidence-based practice (Flodgren et al., 2011). The use of champions (pain link/resource nurses) has been suggested as a way of increasing the application of research in practice in relation to pain management (McCleary et al., 2004; Ladak et al., 2013). Despite this, there is very little research on the effectiveness of pain champions in improving practice. The use of pain champions (pain

link/resource nurses) as a way of improving patient outcomes was evaluated in two Australian hospitals (Williams, 2012). Eleven months after the introduction of the pain champions, more patients had a pain score recorded on the daily observational chart and in the nursing care plan, and there was an increase in the number of patients with a pain score documented each nursing shift. No other differences in pain care were noted. These results suggest that the use of pain champions may be a useful strategy for improving documentation practices. Further evaluation is needed to explore the impact on patient outcomes. Linked to the use of pain champions was a pain campaign:

Maybe a pain campaign with posters/videos in Drs. [doctors] offices and other family spaces could help? (@AshleighTownley)

Participants wondered whether having posters saying “zero pain allowed” or similar would help empower parents? Another suggestion was a pain campaign with posters/videos in doctors’ offices and other family spaces. This was one of the strategies used by Stevens et al. (2014).

Challenging health care professionals to think differently about pain management

How we can challenge health care professionals to think differently about pain management was discussed. Specific suggestions were raised:

Should not using a pain assessment tool or not giving pain meds [medications] be seen as an adverse event? (@EBNursingBMJ)

Health care systems are increasingly focusing on preventing adverse events. An adverse event has been defined as:

“An injury related to medical management, in contrast to complications of disease. Medical management includes all aspects of care, including diagnosis and treatment, failure to diagnose or treat, and the systems and equipment used to deliver care. Adverse events may be preventable or non-preventable” (World Health Organization, 2005, p. 8).

The knowledge to guide acute pain management practices in children is readily available, but practices continue to fall short of the ideal with many children experiencing moderate to severe unrelieved pain during hospitalization. It has been argued that mismanaged or undertreated acute pain from procedures or surgery should be considered an adverse care event (Chorney et al., 2010; Twycross et al., 2013b). Given this, it is possible that children's pain management may be improved if we apply a similar adverse events framework to the treatment of pain. This is worthy of further investigation. The need to draw on change management theories was also discussed.

Pain assessment and clinical guidelines

Clinical guidelines state pain assessment tools should be used but research suggests this does not happen consistently (Stevens et al., 2012; Twycross et al., 2013a). The reasons this might be the case were discussed. Does including the pain score on the observation chart help? How can we encourage nurses to assess (and record) pain scores? Ensuring pain scores were recorded is easier where electronic medical records exist and require a response.

In Adult we have a section for pain on observation chart - always done as forced action can paed's do this?? (@calvinmoorley)

Having standards of care, policies and procedures that recognize pain as the fifth vital sign is seen as important.

Pain is the fifth vital sign and deserves to be a high priority regardless of time restrictions. (@Taryn_PhD)

One participant highlighted the fact that even in the USA where the recording of pain scores is mandated there is only 90% compliance. There was agreement that this needed exploring further:

We should figure out an a strategy to investigate the 10% of cases where pain isn't assessed. (@AshleighTownley)

It should be noted that a literature review focusing on the use of pain assessment tools in acute

pediatric pain concluded there was no robust evidence to support their use in practice (Franck & Bruce, 2009). Conversely, using a self-report pain assessment tool in conjunction with an analgesic algorithm has been shown to decrease children's pain scores (Falanga et al., 2006).

Parents and pain management

A major theme of the Twitter Chat was parents and pain management. Could parents be supported to advocate for their child in pain? Would this then ensure clinical guidelines were implemented in practice? The need to raise public awareness of effective pain management was discussed.

Parent advocacy could be a great way forward. Has anyone tried this? (@EBNursingBMJ)

I think you're right. Who better to advocate for children than their parents? (@CAAPNACIIPA)

The overwhelming opinion was that if parents demand pain care for their children, health care professionals will provide it. So the question is how do we get parents to realize pain management matters? Research suggests parents think pain is an inevitable consequence of health care (Taddio et al., 2012; Twycross & Finley 2013). Parent empowerment has been used successfully in the past to change attitudes to pain in neonates (McGrath, 2011). Perhaps it is time to do the same for other types of pain?

The need to provide parents with information and advice about pain management was discussed.

I hope there is info in these materials about how to help parents cope with children's pain. (@robertaheale)

Several useful resources to help parents manage their children's pain more effectively were identified (see Box 2). To date there has been no research evaluating the effectiveness of these resources in supporting parents to manage their child's pain. This is important particularly as a recent systematic review indicated that interventions examined to date have been largely ineffective in changing parents' behavior when

managing their child's postoperative pain (MacLaren Chorney et al., 2014). There is also a growing body of evidence that shows parents hold

misconceptions about children's pain and pain management (Zisk et al., 2007; Fortier et al., 2011; Twycross et al., in press).

Box 2: Online resources to support parents in managing their child's acute pain

Pain after day surgery

www.mychildsinpain.org.uk

Procedure pain

The "It Doesn't Have to Hurt" video series by the Centre for Pediatric Pain Research including:

The power of parents touch (infants): www.youtube.com/watch?v=3nqN9c3FWn8

Strategies for helping children with shots and needles (older children):

www.youtube.com/watch?v=KgBwVSYqfps

This blog by Stefan Friedrichsdorf includes links to several videos:

<http://blog.apsoc.org.au/2014/08/21/reducing-and-eliminating-procedural-pain-related-to-needles-the-four-essential-non-negotiable-components/comment-page-1/>

Pain from vaccination

The Help eliminate pain in kids resources:

www.sickkids.ca/Learning/Stories/Knowledge-Translation/anna-taddio.html

Be Sweet to Babies Resources (for infants and neonates)

Vaccination: www.youtube.com/watch?v=8Wzjxvrl91U

Blood tests: www.youtube.com/watch?v=eLZQsFjnqtk

Another topic discussed was whether parents' guilt about their child's pain is an issue:

Interesting. I've often felt this [guilt] is why mothers consistently underestimate kids' pain. (@DrCChambers)

Agreed. Guilt on the part of parents and maybe providers could be barrier to better pain management. (@CAAPNACIIPA)

No research has been carried out exploring this concept.

Conclusion

In summary, this Twitter Chat offered important insights into why clinical practice guidelines aren't being used in practice. There is clearly a need to address the problem of poorly managed pain in multiple ways. Moreover, this Twitter Chat provided a unique interactive forum in which an interdisciplinary group of clinicians and academics could communicate over social media about key issues for clinical practice. We found the Twitter Chart to be a very enjoyable and rewarding experience and would encourage other clinicians and researchers to use this approach to share ideas.

A Storify version of the Twitter Chat can be found at: <https://storify.com/EBNursingBMJ/why-aren-t-clinical-guidelines-used-in-practice>

Alison Twycross, PhD
Department for Children's Nursing, School of Health and Social Care, London South Bank University, London, UK
email: a.twycross@lsbu.ac.uk

Christine T. Chambers, PhD
Departments of Pediatrics and Psychology and Neuroscience, Dalhousie University; Centre for Pediatric Pain Research, IWK Health Centre, Halifax, NS, Canada

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Endnotes

- ¹ A huddle involves bringing the members of a team together for a short period of time to strategize, and decide on actions that need to be taken in a given situation.
- ² A champion is a member of a health care team who leads the way in relation to changing practice and acts as a resource to other members of the team. In pain management, individuals in these roles are often referred to as pain resource nurses or pain link nurses.

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