Evidence-Based Pain Management in the Ambulatory Setting

Michele Farrington, BSN, RN, CPHON
Trudy Laffoon, MA, RN-BC
Carmen Kealey, MA, RN
Cindy Dawson, MSN, RN, CORLN

Objectives

- Outline steps in the evidence-based practice process using the *Iowa Model of Evidence-Based Practice to Promote Quality Care and Implementation Guide*.
- Describe an EBP project regarding translation of evidence-based interventions related to needlestick pain into practice in ambulatory settings.

Conflict of Interest Disclosure

- The speakers do not have any conflicts of interest or disclosures to report.
Iowa Model of Evidence-Based Practice to Promote Quality Care

Titler et al., 2001

Triggers

Problem Focused Triggers
1. Risk Management Data
2. Process Improvement Data
3. Internal/External Benchmarking Data
4. Financial Data
5. Identification of Clinical Problem

Knowledge Focused Triggers
1. New Research or Other Literature
2. National Agencies or Organizational Standards & Guidelines
3. Philosophies of Care
4. Questions from Institutional Standards Committee
Organizational Priority

Is this Topic a Priority For the Organization?

Team

Form a Team

Evidence

Assemble Relevant Research & Related Literature

Critique & Synthesize Research for Use in Practice
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Sufficient Research Base

Is There a Sufficient Research Base?

No

Base Practice on Other Types of Evidence
1. Case Reports
2. Expert Opinion
3. Scientific Principles
4. Theory

Piloting

Pilot the Change in Practice
1. Select Outcomes to be Achieved
2. Collect Baseline Data
3. Design Evidence-Based Practice (EBP) Guideline(s)
4. Implement EBP on Pilot Units
5. Evaluate Process & Outcomes
6. Modify the Practice Guideline

Adopt Practice Change?

Continue to Evaluate Quality of Care and New Knowledge

Is Change Appropriate for Adoption in Practice?

No

Institute the Change in Practice

Yes

Monitor and Analyze Structure, Process, and Outcome Data
- Environment
- Staff
- Cost
- Patient and Family

Disseminate Results

Titler et al., 2001
Diffusion of Innovations

Illusions about Implementation
- Implementation isn’t that difficult
- They know what to do
- We already provide the best care
- They just need to know the evidence
- If it works for them, it should work for us
- We just need to tell them what to do
- We just need to find the one right way to implement a practice change

Nature of the Innovation – Resistance to Change
- Nursing traditions – sacred cows
- Lack of authority and support
- Landmines
- It takes time
- Evidence can be overwhelming – access, amount, quality, ability (critique, synthesis, statistics, etc.)
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Diffusion Theory – Rogers

- Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system.

Diffusion Rate

- Rogers, 2003

Diffusion Model – Innovation-Decision Process

- Rogers, 2003
- Logan & Graham, 1998
- Veniegas et al., 2009

- Rogers, 2003
- Logan & Graham, 1998
- Veniegas et al., 2009
Implementation Strategies

EBP Implementation Model

Laura Cullen, DNP, RN, FAAN
Susan Adams, PhD, RN

I. Create Awareness & Interest
II. Build Knowledge & Commitment
III. Promote Action & Adoption
IV. Pursue Integration & Sustained Use

Cullen & Adams, 2012
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Implementation Target Groups

- Clinicians
- Organizational Leaders
- Key Stakeholders
- Social System
- Organizational Context

Implementation Strategies for Evidence-Based Practice

Cullen & Adams, 2012

Evidence-Based Strategies

- Empirical Evidence in Healthcare*
  - Audit and feedback

- Little Evidence in Healthcare
  - Unit posters
  - E-mail broadcasts

Cullen & Adams, 2012
Phase I: Create Awareness & Interest

Goals
- What are the positives about the EBP?
- Think of this as marketing the EBP.
- Should be fun and eye catching.

Strategies
- Highlight advantage
- Highlight compatibility
- Sound bites

Phase II: Build Knowledge & Commitment

Goals
- How do clinicians within a discipline like to learn?
- Build upon the natural tendency for clinicians to learn from each other.
- Keep an eye toward building the EBP into the system to make it easy to do it right.

Strategies
- Education
- Change agents
- Educational outreach or academic detailing
- Gap assessment/gap analysis
- Local adaptation and simplify
- Action plan

Phase III: Promote Action and Adoption

Goals
- Use highly interactive and personal approaches.
- Demonstrate with return demonstration and reinforcement.
- Expand upon context focused strategies.

Strategies
- Educational outreach/academic detailing
- Try the practice change
- Change agents
- Audit key indicators
- Actionable and timely data feedback
- Report into quality improvement program
Phase IV: Pursue Integration and Sustained Use

Goals
- Think about booster shots or periodic reinforcement.
- Build toward EBP becoming the norm or standard way to practice.
- Building EBP into the system is critical to help clinicians.

Strategies
- Peer influence
- Audit and feedback
- Report into quality improvement program

Cullen & Adams, 2012

Implementation in Action...

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Is This Topic a Priority For the Organization?

Form a Team

Title et al., 2001

Purpose

The purpose of this evidence-based practice project was to ensure a consistent, standardized approach when offering interventions for management of needlestick pain across adult and pediatric ambulatory clinics at a large academic medical center.

Conduct Research

Titler et al., 2001

Iowa Model (cont.)

Critique & Synthesize Research for Use in Practice

Base Practice on Other Types of Evidence
1. Case Reports
2. Expert Opinion
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4. Theory
Synthesis of Evidence

- Pain management recognized as right of all patients since 2001 by The Joint Commission
- Pain – prevalent global health concern; one of most common reasons people seek health care
- Pain assessment and treatment – complex
- Multifactorial influences to assessment and treatment provided by health care team
- Ineffectively treated pain negatively impacts overall healthcare costs

Immunization Experience…

Synthesis of Evidence (cont.)

- Evidence-based interventions available:
  - Topical anesthetic creams
  - Breastfeeding
  - Distraction (child-, clinician-, or parent-led)
  - Sucrose solution
  - Patient positioning
  - Tactile stimulation
  - Breathing exercises
  - Buzzy® device
  - Bacteriostatic normal saline
  - Vapocoolant spray
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Iowa Model (cont.)

Practice Change

- Adult and pediatric patients in ambulatory clinics
  - Injections/immunizations, blood draws, or IV starts
- Evidence-based pharmacologic, physical, and psychological interventions must be **routinely offered** to patients/caregivers
- Focus:
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Implementation Strategies

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Titler et al., 2001

Practice Change

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Specific Strategies

- Web-based training (PPT)
  - Staff Education Committee approval
  - Total # completed (n=1124)

- Hands-on pain competency station
  - Super-Users (n=22)
  - Regular attendees (n=502)

Pocket Card – Adults

Pocket Card – Pediatrics
Interventions for Needlestick Pain

Choose option/combination of options best meets patient need considering:
- Time
- Age
- Allergies
- Contraindications
- Patient/Family Preference

Use if:
- <30 minutes prior to needlestick
- 30-60 minutes prior to needlestick
- >60 minutes prior to needlestick

Order Per Protocol
(Yes/No/Not Applicable)

Policy Number/Title Additional Information

Sucrose
- > 32 weeks gestation (effectiveness 3 months – 1 year of age)
- Not Applicable – Order Not Needed
- N-CWS-PEDS-02.175 “24% Sucrose Solution, Use of” Obtained from Stores (PS# 992213)

Breastfeeding
- Dependent on age/NPO status; ability of infant to coordinate suck/swallow 2-3 minutes prior to procedure, during procedure, and after procedure

Comfort Positioning
- Distraction, or Mindfulness-Based Stress Reduction

Developmentally appropriate interventions

Buzzy
- Without cold wings: >46 weeks gestational age – 2 years of age and sickle cell disease
- With cold wings: >2 years of age and desired
- Not Applicable – Order Not Needed
- N-CWS-PEDS-02.013 “Buzzy® Usage” Obtained from Stores (PS# 59950 – Buzzy; PS# 59951 – Ice Pack Wings)

Bacteriostatic Normal Saline
- >30 days of age; able to tolerate 30 gauge needle; no allergy to benzyl alcohol
- No No Yes N-08.092 “Protocol for the Use of Bacteriostatic 0.9% Sodium Chloride with Benzyl Alcohol Prior to Venipuncture for IV Cannulation or Lab Draw” Obtained from Stores (PS# 992171 – Bacteriostatic Normal Saline; PS# 038531 – 30 gauge needle)

Pain Ease
- >3 years of age; able to understand cold spray is used to help with pain versus induce pain; not for use with blood cultures
- No No Yes N-08.094 “Protocol for the Use of a Topical Anesthetic Skin Refrigerant/Vapocoolant for Needle Procedures” Obtained from Stores (PS# 992130)

LMX4
- >37 weeks gestational age; no allergy to lidocaine/amides; caution in liver failure
- No Yes N-08.090 “Protocol for Topical Numbing Agents: EMLA, L.M.X.4™ Cream” MA Competency Checklist before able to administer; Obtained from Pharmacy

EMLA
- >37 weeks gestational age; no allergy to lidocaine/prilocaine/amides; methemoglobinemia concern for infants <12 months of age; some blanching/vasoconstriction; caution in liver failure
- No No Yes N-08.090 “Protocol for Topical Numbing Agents: EMLA, L.M.X.4™ Cream” MA Competency Checklist before able to administer; Obtained from Pharmacy

Additional resources:
- Aircare – Adult Aircare – Pediatric & Neonatal
- Emergency Department Charge Nurse
- Pediatric Vascular Access Nurse
- Pagers 1131/1136 Pager 3210 Phone 3-6261 Pager 4213
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Evaluation – Staff Questionnaire

- Response Rate
  - Pre-Implementation – 26.5% (n=195/735)
  - Post-Implementation – 29.2% (n=203/696)

- Staff Knowledge
  - 57.5% correct (pre) improved to 69.1% correct (post)

Evaluation – Staff Questionnaire (cont.)

- Strongly Disagree
- Strongly Agree

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<th>Topical Anesthetic Cream</th>
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Pre-Implementation (n=195) Post-Implementation (n=203)

Evaluation – Process

- Customized question added to Ambulatory Press Ganey® survey, starting March 2015

- Patient feedback received from a staff member...
  - “I used the Buzzy yesterday on a women in her late 60s ... had been stuck several times a couple of weeks ago, but was still a little bruised and tender ... used continuous mode while drawing ... blood and she loved it! She reported she did not feel a thing and thought it was the neatest thing ever!”
Conclusions

- Staff knowledge improved & perceptions changed
- Ongoing re-infusion will be needed for sustainability and integration
- Positive outcome – materials revised or developed being used by other areas within the hospital

Iowa Model (cont.)

Next Steps

- Incorporated content:
  - Divisional orientation
  - Annual competencies
- Purchased items and developed pain toolkits for each clinic
- Obtained funding for small freezers – Buzzy® gel wings
- CE program and Grand Rounds – October 2015
Acknowledgement

- A special thanks to the Super-Users who helped with the hands-on pain competency training: Sharon Baumler, Tracy Bloebaum, Carol Callaghan, Leslie Davis, Marybeth Diserfeld, Amy Eitsworth, Glenda Eubanks, Karlene Fuller, Marta Grosvenor, Jennifer Johnson, Nancy Mata, Sarah Smith, Deborah Steinbaker, Maggie Stoner, Jane Utch, Marie Voegele, and Marilyn Wurth!
- Thank you to Kristin Eveland and Terri Wetling for all of their assistance!

Questions/Comments

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Consider Other Triggers

Knowledge Focused Triggers
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Is this Topic a Priority For the Organization?
Yes
Form a Team

Assemble Relevant Research & Related Literature

Critique & Synthesize Research for Use in Practice

Is There a Sufficient Research Base?
Yes
Pilot the Change in Practice
1. Select Outcomes to be Achieved
2. Collect Baseline Data
3. Design Evidence-Based Practice (EBP) Guideline(s)
4. Implement EBP on Pilot Units
5. Evaluate Process & Outcomes
6. Modify the Practice Guideline

No
Continue to Evaluate Quality of Care and New Knowledge

Is Change Appropriate for Adoption in Practice?
Yes Institute the Change in Practice
No
Disseminate Results

Base Practice on Other Types of Evidence:
1. Case Reports
2. Expert Opinion
3. Scientific Principles
4. Theory

Conduct Research

Monitor and Analyze Structure, Process, and Outcome Data
- Environment
- Staff
- Cost
- Patient and Family

REQUESTS TO:
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## Implementation Strategies for Evidence-Based Practice

### Create Awareness & Interest
- Highlight advantages* or anticipated impact*
- Highlight compatibility*
- Continuing education programs*
- Sound bites*
- Journal club*
- Slogans & logos
- Staff meetings
- Unit newsletter
- Unit inservices
- Distribute key evidence (i.e., electronic or hard copy)
- Mobile 'show on the road'
- Announcements & broadcasts
- Education (e.g., live, virtual or computer-based)*
- Pocket guides
- Link practice change & power holder/stakeholder priorities*
- Change agents (e.g., change champion*, core group*, opinion leader*, thought leader, etc.)
- Educational outreach or academic detailing*
- Integrate practice change with other EBP protocols*
- Disseminate credible evidence with clear implications for practice*
- Make impact observable*
- Gap assessment/gap analysis*
- Clinician input*
- Local adaptation* & simplify*
- Focus groups for planning change*
- Match practice change with resources & equipment
- Resource manual or materials (i.e., electronic or hard copy)
- Case studies

### Build Knowledge & Commitment
- Teamwork*
- Troubleshoot use/application*
- Benchmark data*
- Inform organizational leaders*
- Report within organizational infrastructure*
- Action plan*
- Report to senior leaders
- Audit key indicators*
- Actionable and timely data feedback*
- Non-punitive discussion of results*
- Checklist*
- Documentation*
- Standing orders*
- Patient reminders*
- Patient decision aids*
- Rounding by unit & organizational leadership*
- Report into quality improvement program*
- Report to senior leaders
- Action plan*
- Link to patient/family needs & organizational priorities
- Unit orientation
- Individual performance evaluation

### Promote Action & Adoption
- Educational outreach/academic detailing*
- Reminders or practice prompts*
- Demonstrate workflow or decision algorithm
- "Elevator speech" Data collection by clinicians
- Report progress & updates
- Change agents (e.g., change champion*, core group*, opinion leader*, thought leader, etc.)
- Role model*
- Troubleshooting at the point of care/bedside
- Provide recognition at the point of care*
- Celebrate local unit progress*
- Individualize data feedback*
- Public recognition*
- Personalize the messages to staff (e.g., reduces work, reduces infection exposure, etc.) based on actual improvement data
- Share protocol revisions with clinician that are based on feedback from clinicians, patient or family
- Peer influence
- Update practice reminders

### Pursue Integration & Sustained Use
- Knowledge broker(s)
- Senior executives announcements
- Publicize new equipment
- Teamwork*
- Troubleshoot use/application*
- Benchmark data*
- Inform organizational leaders*
- Report within organizational infrastructure*
- Action plan*
- Report to senior leaders
- Audit feedback*
- Report to senior leaders*
- Report into quality improvement program*
- Revise policy, procedure or protocol*
- Competency metric for discontinuing training
- Project responsibility in unit or organizational committee
- Strategic plan*
- Trend results*
- Present in educational programs
- Annual report
- Financial incentives*
- Individual performance evaluation

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* = Implementation strategy is supported by at least some empirical evidence in healthcare

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