



Showcase for Hopkins Inquiry and Nursing Excellence

# SHINE

Conference **2023**

**Best practices for implementation of Kamishibai cards (K-cards) in the healthcare setting to improve nursing sensitive indicators or nursing outcomes: An integrative review**

***Presented by: Linh Truong and Emily Weiss***

*April 17-19, 2023*



**JOHNS HOPKINS**  
NURSING

# Background

*Johns Hopkins Center for Nursing Inquiry*

## Evidence-Based Practice Intensive

- 6-day course over 4 months



# Team

*Evidence-based practice intensive*

- **Alexandra Johnson**
- **Madeleine Whalen**
- Kimberly Clark
- Elizabeth Gabriel
- Victoria May
- Rachel Meltzer
- Jennifer Moreland
- Nadine Rosenblum
- Linh Truong
- Emily Weiss
- Vicki Yfantis



# Introduction

*What are Kamishibai cards (K-cards)?*

- Visual and interactive audit tools designed to facilitate improvements in workplace safety and quality
  - Originally used in manufacturing
  - Used in healthcare during daily rounding to:
    - Improve safety protocol / bundle compliance (e.g., CAUTI, CLABSI, falls)
  - Literature has demonstrated effectiveness
- Knowledge gap:** Best practice guidelines for implementation

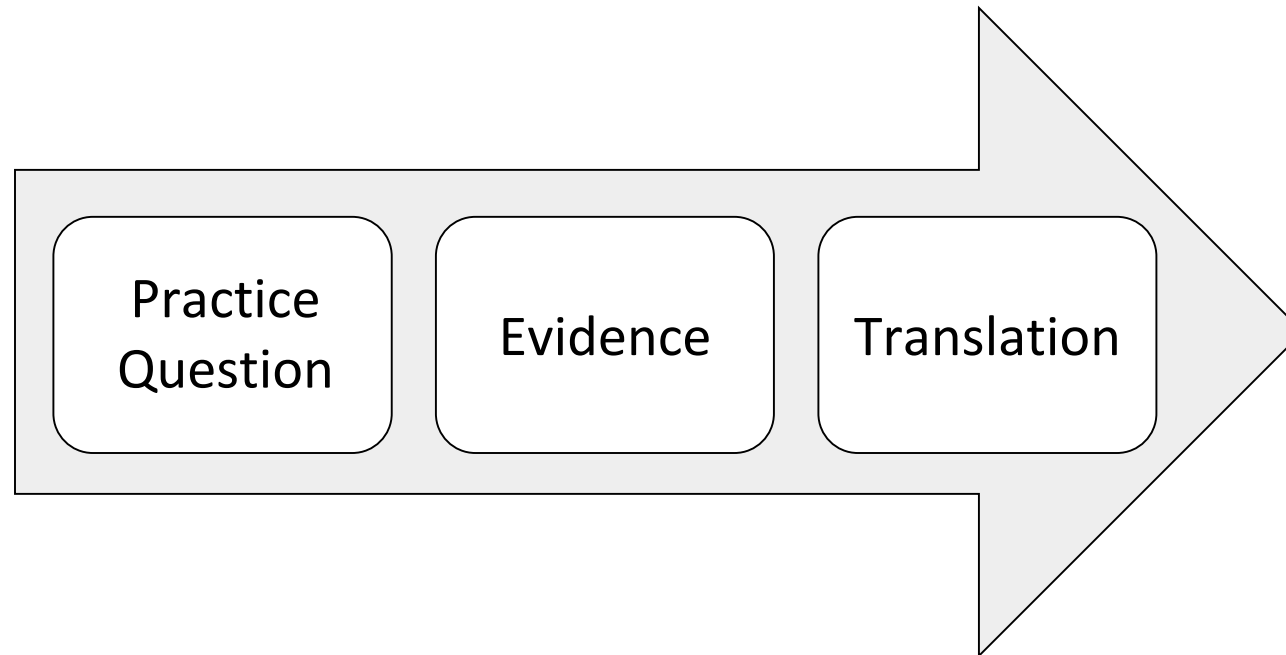
K-Card IV Infiltrate Prevention	K-Card IV Infiltrate Prevention
Identify staff who is caring for a patient with a peripheral IV and together:	Identify staff who is caring for a patient with a peripheral IV and together:
<b>Verify hourly assessment of the site:</b> <ul style="list-style-type: none"><li>• Nurse verbalizes the use of TLC for IV site assessment:<ul style="list-style-type: none"><li>○ Touch- site should feel soft, warm, dry and pain free</li><li>○ Look- site should be uncovered and without redness</li><li>○ Compare- without swelling and same size as opposite extremity/area</li></ul></li><li>• Medical record reflects hourly assessment which should occur 24 hours a day.</li></ul>	<b>Verify hourly assessment of the site:</b> <ul style="list-style-type: none"><li>• Nurse verbalizes the use of TLC for IV site assessment:<ul style="list-style-type: none"><li>○ Touch- site should feel soft, warm, dry and pain free</li><li>○ Look- site should be uncovered and without redness</li><li>○ Compare- without swelling and same size as opposite extremity/area</li></ul></li><li>• Medical record reflects hourly assessment which should occur 24 hours a day.</li></ul>
<b>Observe proper securement of the PIV:</b> <ul style="list-style-type: none"><li>• Dressing is clean, dry and occlusive and the insertion site is visible through the window.</li></ul>	<b>Observe proper securement of the PIV:</b> <ul style="list-style-type: none"><li>• Dressing is clean, dry and occlusive and the insertion site is visible through the window.</li></ul>
<b>Verify vesicant Precautions:</b> <ul style="list-style-type: none"><li>• The nurse verbalizes identification of the patient receiving a vesicant</li><li>• The nurse verbalizes the need for more frequent assessments of PIV while vesicants are infusing.</li><li>• The nurse verbalizes the consideration for central access for long term therapy.</li></ul>	<b>Verify vesicant Precautions:</b> <ul style="list-style-type: none"><li>• The nurse verbalizes identification of the patient receiving a vesicant</li><li>• The nurse verbalizes the need for more frequent assessments of PIV while vesicants are infusing.</li><li>• The nurse verbalizes the consideration for central access for long term therapy.</li></ul>
<b>Verify that the patient and family know to call the nurse for any signs of:</b> <ul style="list-style-type: none"><li>▪ Swelling</li><li>▪ Redness</li><li>▪ Pain</li><li>▪ Numbness</li><li>▪ Wet, firm, hot or cool to touch</li></ul>	<b>Verify that the patient and family know to call the nurse for any signs of:</b> <ul style="list-style-type: none"><li>▪ Swelling</li><li>▪ Redness</li><li>▪ Pain</li><li>▪ Numbness</li><li>▪ Wet, firm, hot or cool to touch</li></ul>
<b>Reliability Criteria: Card is GREEN if:</b> <ul style="list-style-type: none"><li>• All items are compliant</li></ul>	<b>Reliability Criteria: Card is RED if:</b> <ul style="list-style-type: none"><li>• One or more listed items are non-compliant, and circle</li></ul>
<b>Follow-Up:</b> <ul style="list-style-type: none"><li>• Give in the moment praise for keeping the patient safe.</li></ul>	<b>Follow-Up:</b> <ul style="list-style-type: none"><li>• Give in the moment coaching and ensure nurse addresses non-compliant item(s).</li></ul>

# EBP Question:



What are the **best practices for implementing** the use of Kamishibai cards (K-cards) in the healthcare setting to impact nursing sensitive indicator (NSI)-associated outcomes?

## Johns Hopkins Evidence-Based Practice (JHEBP) Model



# Methods

## *Integrative review*

Database	Search strategy
<b>PubMed</b>	("k-card"[tw] OR "k-cards"[tw] OR "Kamishibai"[tw])
<b>CINAHL</b>	("k-card" OR "k-cards" OR "Kamishibai")
<b>Scopus</b>	TS=("k-card" OR "k-cards" OR "Kamishibai")
<b>Web of Science</b>	TS=("k-card" OR "k-cards" OR "Kamishibai")
<b>Embase</b>	("k-card":ti,ab,kw OR "k-cards":ti,ab,kw OR "Kamishibai":ti,ab,kw)

\*English language searches only

**Articles found: 173**

**Exclusion criteria:**

- Duplicate (76)
- Absence of K-cards (65)
- Outside the healthcare setting (1)
- No discussion of implementation (4)
- Conference abstract (11)
- “Low” quality evidence according to the JHEBP Model (5)

**Articles reviewed: 10**





# Results

*Common trends seen*

## Level:

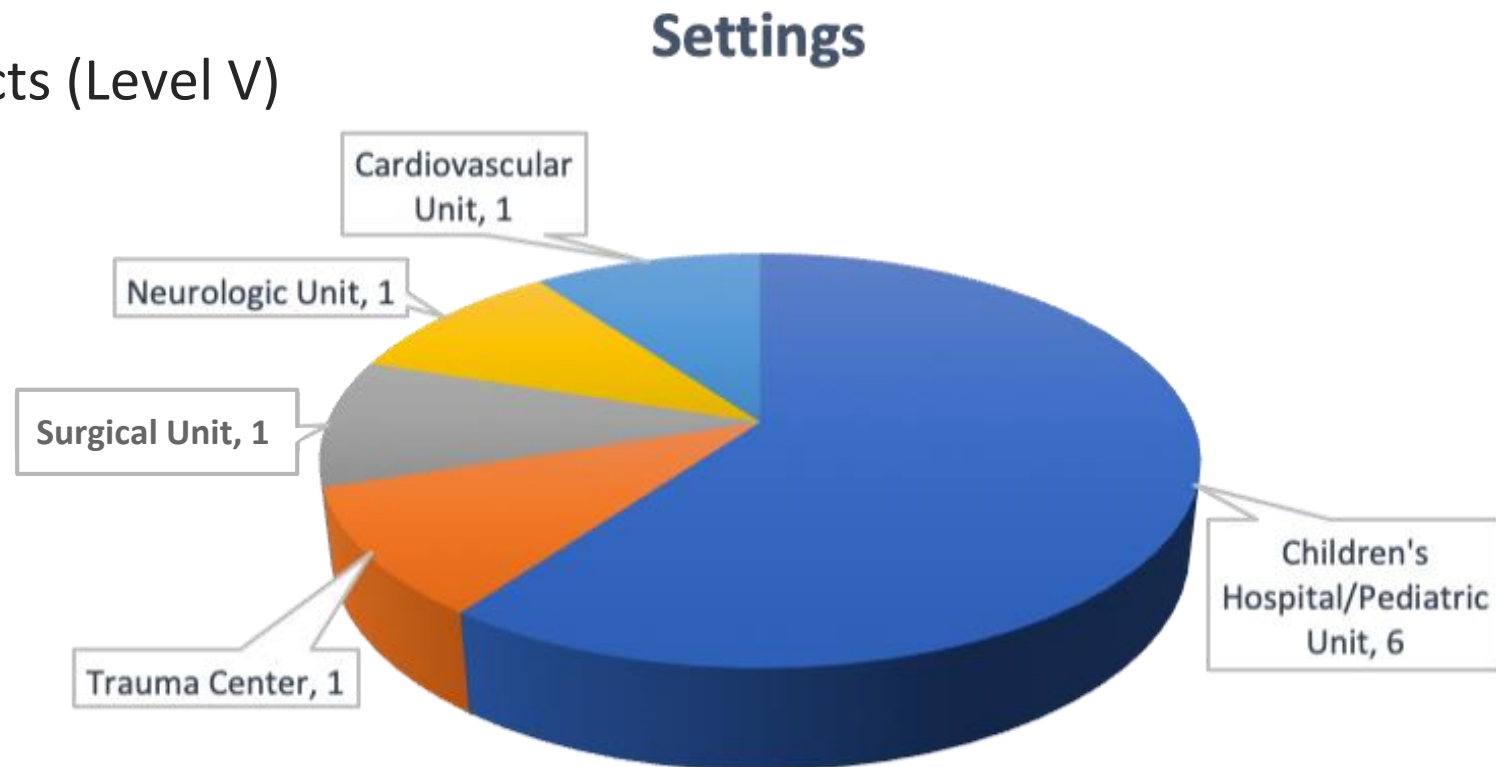
- 9 quality improvement (QI) projects (Level V)
- 1 qualitative study (Level III)

## Nursing sensitive indicators:

- CLABSI (7)
- CAUTI (3)
- Call light responsiveness (2)
- Hypothermia management (1)
- Falls (1)

## Universal findings:

- All reported improvement in nursing sensitive indicators
- 9/10 reported statistically significant improvement



# Best Evidence Recommendations

## *Synthesis*

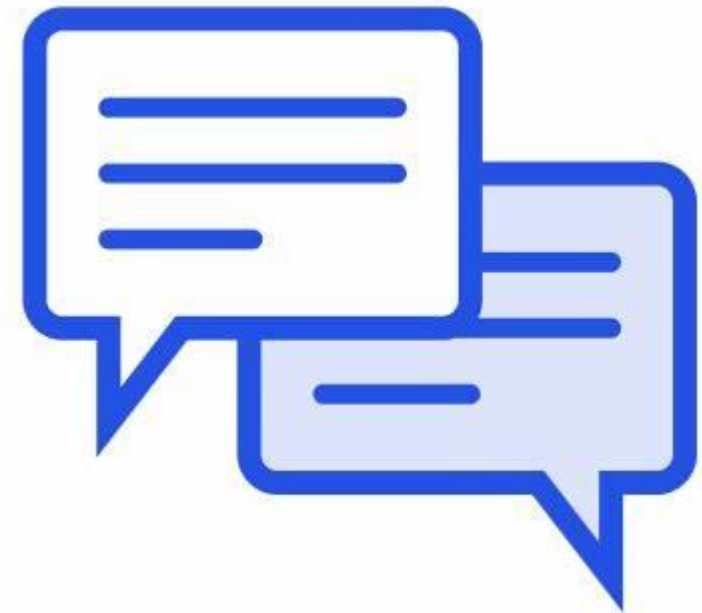
- Develop strong pre-implementation education and communication plans
- Involve frontline staff
- Include patient and care partner if possible
- Use real-time, direct observation of K-card rounding
- Provide non-punitive, nonjudgmental feedback
- Respond to and remove barriers to 100% compliance
- Use a clear visual display



# Translation

*Suburban Hospital context*

- Pilot on a single unit
- Ensure adequate resources and support
- Establish a unit-level workgroup with frontline staff
- Designate an implementation champion
- Use real-time, direct observation of K-card rounding
- Display K-cards near huddle board
- Provide non-punitive, nonjudgmental feedback
- Use staff recognition



# Dissemination

*On-going*

## Internal:

- Executive summary presented to Suburban Nursing leadership
- Planned follow up

## External:

- Manuscript for publication in nursing journal





*Questions?*