



Playing **YOUR** CARDS:

Learn how the CARD system minimizes needle procedure anxiety and pain so everyone wins"

Paediatric Project ECHO

Thursday November 23rd, 2023

Dana Kondo and Mandy Kohli

SickKids[®]



Faculty/Presenter Disclosure

- Faculty: Dana Kondo and Mandy Kohli
- Relationships with commercial interests:
None
- This program has received financial support from the Ministry of Health (MOH)

Learn how the CARD system minimizes needle procedure anxiety and pain so everyone wins

Today's agenda:

1. Describe how the CARD system minimizes needle procedure-related fear and pain
2. Differentiate how the CARD system differs from traditional healthcare provider-led approaches for pediatric procedural pain management
3. Evaluate current approaches and how the CARD system can be incorporated into your healthcare setting



What is the CARD system?



- Needle pain and fear are the primary concerns for children during hospital visits
- CARD™ (Comfort, Ask, Relax, Distract) is the most comprehensive evidence-based system for reducing patient fear and pain. It operationalizes all components of the clinical practice guideline on pain management during needle procedures and considers all stakeholders (patients, parents, staff)!
- CARD was demonstrated to reduce symptoms when integrated into routine vaccinations undertaken at school, mass vaccination clinics, and community pharmacies, but had not been implemented in a hospital setting, until very recently in Nuclear Medicine at SickKids!



C – Comfort
A – Ask
R – Relax
D – Distract

The CARD framework

- ‘Systems level’ approach
- Targets all stakeholders involved (patients Family Caregivers and providers)
- Turns the evidence into ‘action’ and uses a user-friendly and intuitive tool
- Each stakeholder “*plays their CARDS*”
- Interventions implemented “ahead of time” and “on needle procedure day”



Funding & support for the CARD QI project



Public Health
Agency of Canada

Agence de la santé
publique du Canada



CIHR IRSC
Canadian Institutes of
Health Research Instituts de recherche
en santé du Canada



UNIVERSITY OF TORONTO
LESLIE DAN FACULTY OF PHARMACY

Partners:



Anxiety
CANADA

AboutKidsHealth.ca



A little bit about Nuclear Medicine!

- A specialized area of radiology that uses very small amounts of radioactive materials (radiopharmaceuticals) to examine organ function and structure
- Valuable tool in the diagnosis and treatment of a variety of illnesses and medical conditions.
- The majority of the exams require venipuncture or intravenous cannulation to deliver the radiopharmaceuticals
- In-patients and ambulatory, infants to age 20
- 10 Nuclear Medicine Technologists open to adopting a new framework to improve the needle procedure experience for patients, families and themselves as staff.



A little bit about how CARD came to Nuclear Medicine!



- A small team with an existing pain management program, Medical Directive for pharmacological strategies and adjuvants, multi-modal approach, pain assessment
- The CARD Quality Improvement Project received departmental approval in May, then the SickKids Quality Management Department approval in July 2022.

Objectives:

- 1) Improve patient experience
 - 2) Reduce patient fear
- Multidisciplinary, interprofessional team including:

CARD implementation experts, Nuclear Medicine Technologists, Nurses, Child Life Specialists, Interprofessional Education Specialists, Clinical Instructor, Vascular Access Team, DIR Leadership, Child Psychologists, Nuclear Medicine Physicians, Quality Improvement Advisors

- Co-leads Dr. Anna Taddio and Mandy Kohli



C – Comfort
A – Ask
R – Relax
D – Distract

CARD domains/components

4E Model

Who...

- Providers/staff
- Patients/families

When...

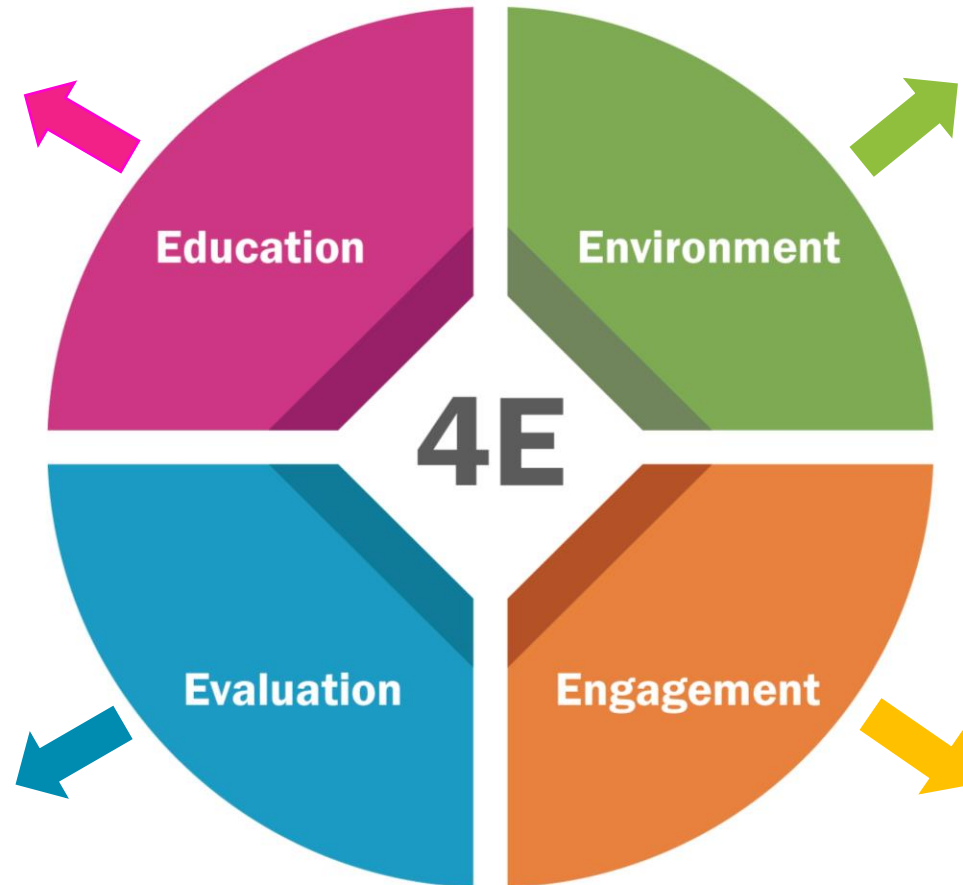
- On appointment day
- Ahead of time (booking)

Who...

- Patient/family surveys
- Staff surveys

How...

- Quality improvement methodology (iterative)



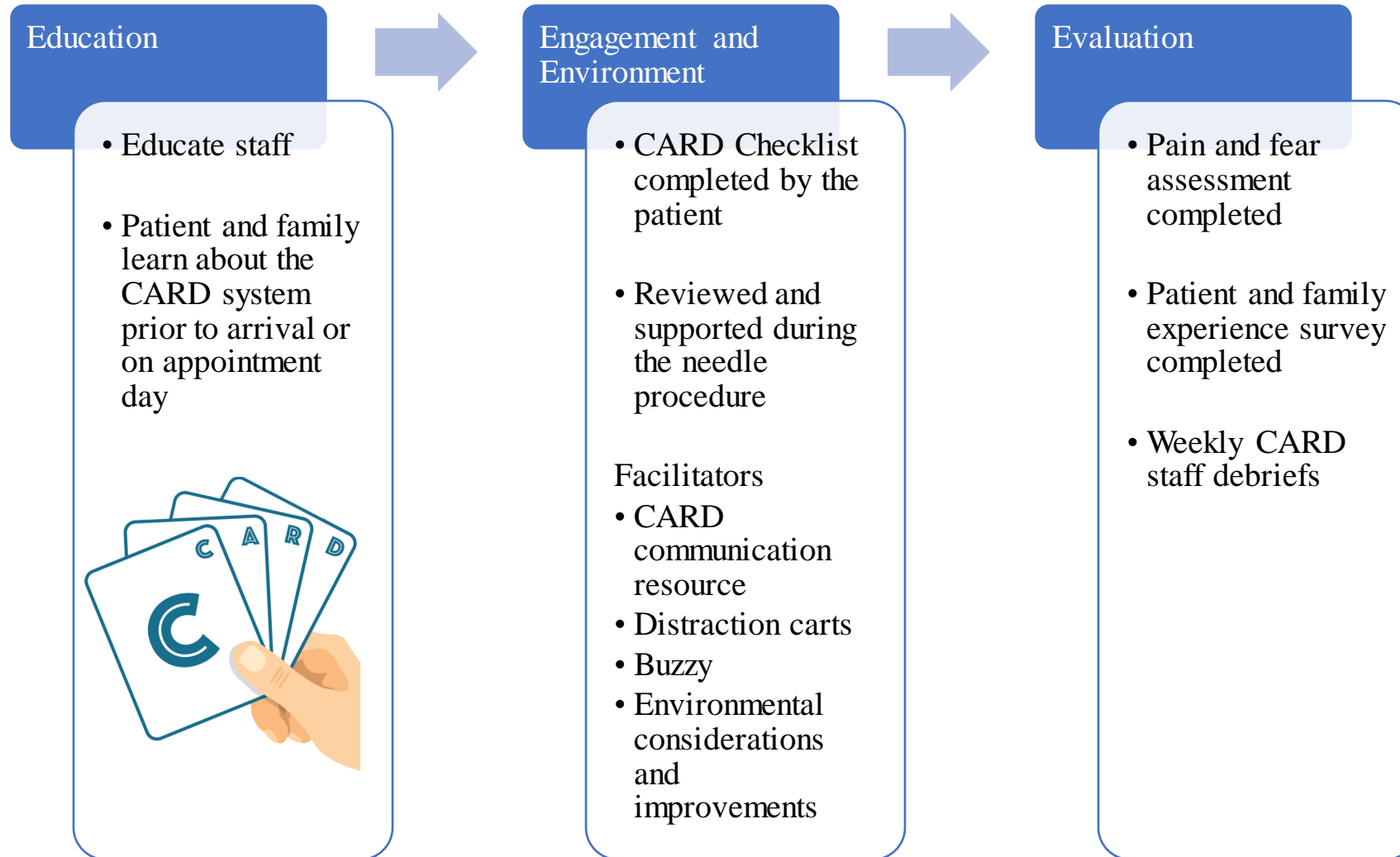
What...

- Minimize fear cues
- Distractions and other coping interventions
- Space for support person with seating
- Privacy

How...


- Coping-promoting behaviours
- Assess symptoms (fear, pain, dizziness)
- Invite participation, answer questions
- Support CARD (coping) choices
- Procedure technique (minimizing injection pain)

CARD in action!



CARD education

- ✓ Pre-implementation education session for staff
- ✓ Frequent meetings with the project team
- ✓ Hardcopy and electronic CARD education resources
- ✓ Daily/weekly staff debriefs
- ✓ Staff surveys
- ✓ Partnering with Child Life to create a communication resource for needle procedures
- ✓ CARD bulletins




CARD Issue: Play Manual

Playing **your** CARDS so everyone wins

Project Dates: August 2022 to August 2023

The CARD 4E “play” – Education



Why are we playing CARD?

Objectives:

- 1) Improve patient experience
- 2) Reduce patient fear

Rationale:

- There is a clinical practice guideline that outlines evidence-based interventions to reduce patient fear.
- CARD™ (Comfort, Ask, Relax, Distract) turns the CPG into practice. CARD is a needle planning and delivery system that reduces patient fear and pain to improve needle experiences for everyone (patients, parents, staff)!

How are we going to play:

- We are here to implement CARD as a quality improvement project in nuclear medicine.
- CARD changes can fall into one of the 4E categories: Education, Environment, Engagement or Evaluation
- We will use feedback collected from patients, parents and staff (that's you!) to make small changes under the CARD categories
- Each time we make a change, we will send out a bulletin like this one to summarize the impact
- Consider this bulletin your **play manual**. If you ever need a refresher on how to play, you can reference this!

The game plays:

Education:

- Teach providers about CARD with training sessions and bulletins
- Teach patients and parents about CARD on and before appointment day

Environment:

- Add posters and activities to waiting areas and procedure rooms

Engagement:

- Use the CARD checklist to involve patients in choosing coping strategies

Evaluation:

- Assess patient fear and pain
- Ask stakeholders what they liked and what can be done better

How do we win?

Use these tools...


- In-advance CARD education pamphlets
- CARD posters
- CARD activity carts with distraction items
- CARD checklist
- And others!

To achieve these aims:

- 1) Improve patient experiences by 15%
- 2) Reduce patient fear by **X**%

Thank you!

Thanks everyone for playing your best hand to make needles a more positive experience for everyone. If there are any questions or you want to share stories, please contact Victoria at:
victoria.gudzak@mail.utoronto.ca.



- ✓ Provide education to patient and family on or ideally before appointment day:
 - ✓ CARD education pamphlets
 - ✓ CARD game
 - ✓ CARD posters
 - ✓ CARD Activity carts with distraction items
 - ✓ CARD Checklist
 - ✓ CARD t-shirts!

CARD evaluation

Evaluation using Quality improvement methodology (iterative):

- Assess patient fear and pain
- Ask stakeholders what they liked and what can be done better

Who...

- ✓ Patient/family surveys
- ✓ Staff surveys

CARD staff debrief survey

Date: _____ Location: _____ Time: _____
Who was present: _____

Weekly debrief sessions provide opportunities for staff to share successes, challenges, and suggestions, empower them to help each other learn from their experiences and continue to inform the implementation of CARD. Reflect on needle procedures you have been involved with over the last week with these questions as a guide. Be as specific as you can when answering the questions.

You can choose to include your name with the feedback below or answer anonymously.

1. What went well and why?

2. What didn't go well and why?

3. Did the team work productively together?

4. What can we do differently to make it even better next time?



CARD Issue 1, No. 1, April 24, 2023

Playing **your** CARDS so
everyone wins

Dates: April 3, 2023 to April 14, 2023

SickKids

The CARD 4E "play" – Evaluation



Winning play of the week!

- Technologists completed fear and pain evaluation **100%** of the time in the last 2 weeks!
1) 16/16 patients were asked about their fear and pain using the recommended tools
2) 16/16 patients had their fear and pain scores documented on the tech worksheet

Feedback from a Technologist

"I think asking kids is great. It helps them feel involved in their care"

More about this play:

Objective:

- Document fear and pain in all patients undergoing needle procedures

Rationale:

- Asking patients about their fear and pain helps understand their feelings because we cannot see how they feel
- Tracking fear and pain across patients helps to know how well our approaches are working
- We can use this information to plan for future procedures for individual patients, and also, to make it better for everyone

Timeline:

- Start time for this play: February 16, 2023

What's next for this play?

- Continue fear and pain evaluation using recommended tools
- Continue documenting scores on tech worksheet

The next play (CARD 4E):

- Environment: This play started March 24, 2023 and is in progress



Tech Tip:

For patients unable to provide self-report of their fear/pain, use FLACC and/or parent-rated child fear/pain



After this play:

36% of patients reported a better experience compared to their last needle.

Thank you!

Thanks everyone for playing to make needles a more positive experience for everyone!



Playing **your** CARDS so everyone wins

Dates: April 10th to April 21st

SickKids

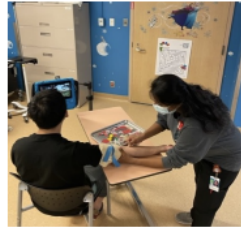
The CARD 4E “play” – Environment



Winning play of the week!

Room 2 changes led by Jathusa:

- Chairs positioned to face CARD posters (instead of facing frightening equipment)
- Procedure table positioned to the side of the patient (IV tray not in view of patient)
- Stickers on IV tray (needle obscured from view)
- Child selected iPad as distraction strategy



Room 2

More about this play:

Patient Feedback:

- **100%** (16/16) patients reported they preferred looking at a poster over medical equipment; and 88% (14/16) specifically reported liking CARD posters

“My child had many needles. Today is the most support – the most emotional support – I have ever felt.”

Feedback: from parent

More about this play:

Objective:

- Make room more child-friendly and reduce visual fear cues
 - 1) Alter position of furniture
 - 2) Provide poster and activity distractions

Rationale:

- Observing medical equipment and needles can increase fear

“Hearing what the family had to say made me feel so fulfilled. Sometimes the small things can make a difference...I am glad I got to be a part of it!”

Feedback: from Jathusa



Tech Tips: position chair to maximize lighting; consider position of medical equipment and needles



After this play: **44%** of patients reported a better experience compared to their last needle

What's next for this play?

- Continue employing and expanding environmental changes during procedures (e.g., sitting on stools)
- Expand distractions to waiting area

The next play (CARD 4E):

- Engagement and Education: These plays are planned to take effect in May and June, 2023

Thank you!

Thanks for playing to make needles a more positive experience! For comments/suggestions, contact Victoria: victoria.gudzak@mail.utoronto.ca

CARD **environment**

Observing medical equipment and needles can increase fear. Make room more child-friendly and reduce visual fear cues

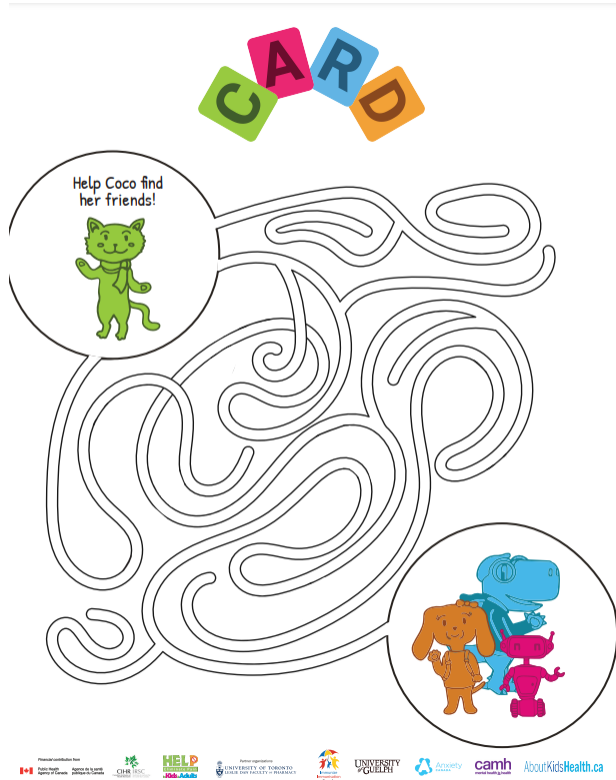
- 1) Alter position of furniture
- 2) Provide poster and activity distractions

- ✓ Minimize fear cues
- ✓ Distractions and other coping interventions
- ✓ Space for support person with seating
- ✓ Privacy

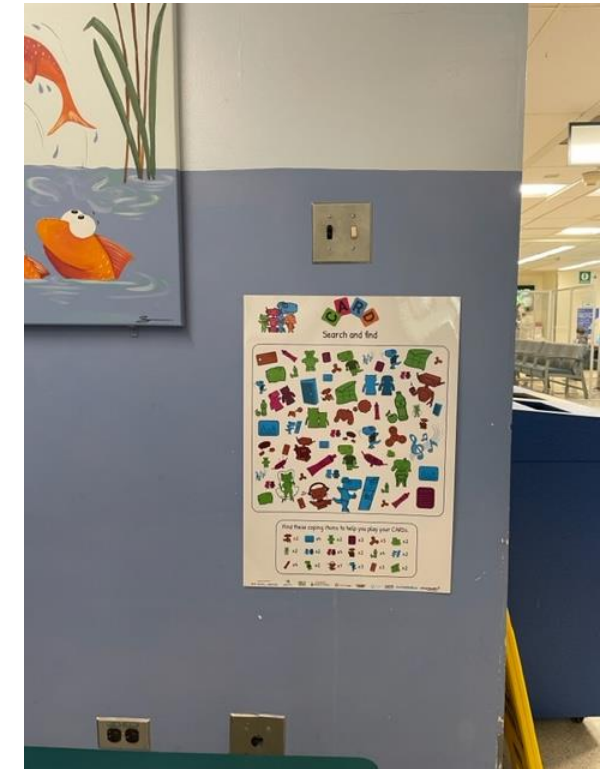
CARD environment



- ✓ Minimize fear cues
- ✓ Distractions and other coping interventions (introduction of new iPad stand, stickers on injection trays, posters on doors and in procedure rooms)
- ✓ Space for a support person with seating
- ✓ Privacy



2nd floor DIR waiting room



Nuclear Medicine waiting room

CARD environment

- ✓ Posters displayed in second-floor DIR waiting rooms in May, 2023
- ✓ Minimize fear cues and provide distraction as posters can give patients and families something to look at and do while they are waiting so they do not get more afraid.



Ultrasound waiting room

CARD
environment-
expanding into DIR!

- ✓ Posters displayed in Ultrasound waiting rooms in May 2023
- ✓ Minimize fear cues and provide distraction as posters can give patients and families something to look at and do while they are waiting so they do not get more afraid.

CARD environment

Nuclear Medicine Team involved in furniture selection to minimize fear cues and promote ergonomic support for NM Technologist during needle procedures



CARD engagement

Coping-promoting behaviours

- ✓ Assess symptoms (fear, pain, dizziness)
- ✓ Invite participation, answer questions
- ✓ Support CARD (coping) choices
- ✓ Procedure technique

CARD Documentation

CARD checklist deployed? ☐ No ☐ Yes

IV team involved? ☐ No ☐ Yes

Child Life involved? ☐ No ☐ Yes

FLACC Pain Score (Scale of 0-10): _____

Patient 5-7 (Scale of 0-10): _____

FACES-R Pain Score: _____

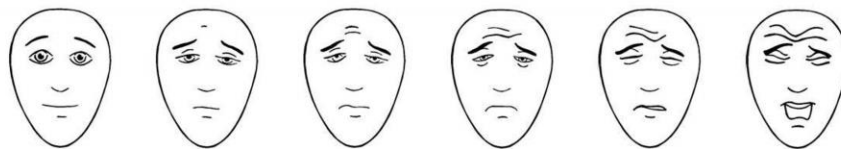
FACES Fear Score: _____

Patient Age 8 and above (Scale of 0-10): _____

NRS Pain Score: _____

NRS Fear Score: _____

MRT(N) _____



Winning play of the week!

- Technologists completed fear and pain evaluation **100%** of the time in the last 2 weeks!
 - 1) 16/16 patients were asked about their fear and pain using the recommended tools
 - 2) 16/16 patients had their fear and pain scores documented on the tech worksheet

More about this play:

Objective:

- Document fear and pain in all patients undergoing needle procedures

Rationale:


- Asking patients about their fear and pain helps understand their feelings because we cannot see how they feel
- Tracking fear and pain across patients helps to know how well our approaches are working
- We can use this information to plan for future procedures for individual patients, and also, to make it better for everyone

CARD engagement

Invite patient participation in their needle procedures by providing them with education about available and evidence-based coping strategies and allowing self-selection of coping strategies according to needs and preferences.

Topical anesthetics temporarily block transmission of pain signals in nerves and can reduce pain sensation from needle procedures by 40-50%.

Patients who are fearful of needles are more likely to want to use topical anesthetics. These medicines may also help patients feel more confident in their ability to cope – this is important too!



CARD Issue 4, No. 1, August 9, 2023

Playing **your** CARDS so everyone wins

Dates: August 2022 to August 2023

SickKids

The CARD 4E “play” – Education

Winning play of the week!

- Utilization of topical anesthetics has increased by more than **50%** (19% to 72%) since CARD implementation!

More about this play:

- Early on in CARD implementation, educating staff about topical anesthetics increased utilization to 48%.
- Giving patients the CARD checklist has further increased utilization to 72%.


Objective and rationale:

Objective:

- Invite patient participation in their needle procedures by providing them with education about available and evidence-based coping strategies and allowing self-selection of coping strategies according to needs and preferences.

Rationale:

- Topical anesthetics temporarily block transmission of pain signals in nerves and can reduce pain sensation from needle procedures by 40-50%.
- Patients who are fearful of needles are more likely to want to use topical anesthetics. These medicines may also help patients feel more confident in their ability to cope – this is important too!
- Using topical anesthetics is part of the hospital's commitment to the Comfort Promise initiative and mission to provide patient and family-centred care.
- Inviting patients to participate in their care by self-selecting their preferred coping strategies is part of using the CARD checklist.



Feedback: parent

“The numbing cream really worked. [My child] has used it in the past. It is the most effective [strategy that helps with their needle].”

Feedback: patient


“The numbing cream made it not hurt as much.”

Tech Tip:

Improve efficiency in workflow by prompting patients about topical anesthetics as soon as you introduce the CARD checklist to them. The application process can commence before procedure details are explained. This reduces waiting time.

After this play:

- 100%** of patients using topical anesthetics said CARD helped.
- 46%** of patients using topical anesthetics reported a better



CARD engagement

Invite patient participation in their needle procedures by providing them with education about available and evidence-based coping strategies and allowing self-selection of coping strategies according to needs and preferences.

- Using topical anesthetics is part of the hospital's commitment to the Comfort Promise initiative and mission to provide patient and family-centred care.
- Inviting patients to participate in their care by self-selecting their preferred coping strategies is part of using the CARD checklist.



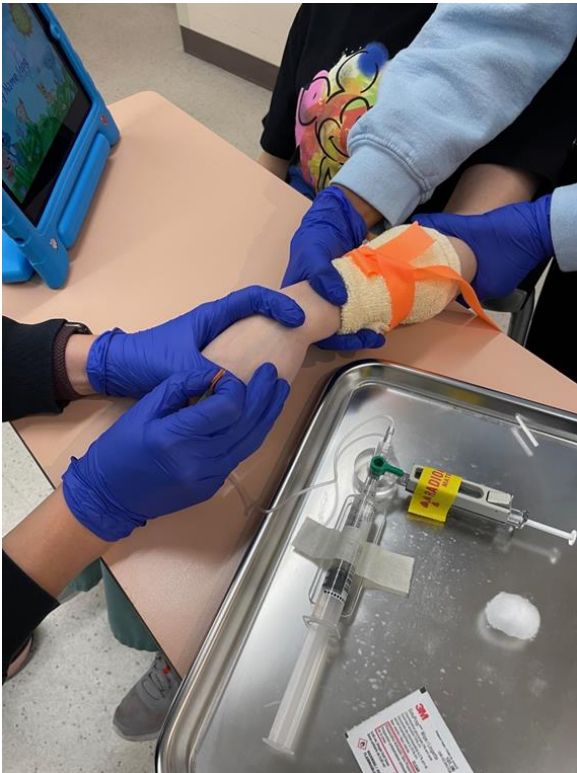
After this play:

- **100%** of patients using topical anesthetics said CARD helped.
- **46%** of patients using topical anesthetics reported a better experience compared to their last needle.

CARD engagement

- ✓ Minimize fear cues
- ✓ Distractions and other coping interventions (introduction of new iPad stand, stickers on injection trays, posters in procedure rooms)
- ✓ Space for support person with seating
- ✓ Privacy





Before



After



After implementation, suggestion made to refine to have sticker facing patient vs NM Tech!

CARD engagement

- ✓ Minimize fear cues
- ✓ Distractions and other coping interventions (introduction of new stickers on injection trays)

Interprofessional communication resource for needle procedures!



CARD Communication Resource



CARD ENGAGEMENT RESOURCE:

Communication strategies to support positive needle procedure experiences for everyone

This resource presents real-world examples of phrases/approaches that can be used by health care providers while engaging patients and others during needle procedures to support patient coping and improve the experiences for patients, health care providers and onlookers (e.g., parents/caregivers).

The situation	 Instead of saying/doing this....	Reason(s) why this is not the preferred approach	 Try saying/doing this instead....	Reason(s) why this is the preferred approach
A provider offers a child a coping strategy during a needle procedure.	<i>"Now look away/take a deep breath/look at the iPad (or another coping strategy)."</i>	Provider-led suggestions may go against the preferred coping strategies of children and increase distress.	<i>"I see you said you wanted to look away/take deep belly breaths/look at the iPad (or another coping strategy) on your CARD checklist. Is that still ok/what you want to do?"</i> AND (depending on situation): <i>"What have been your experiences with needle procedures in the past? What coping strategies have helped?"</i>	Invites patient participation and confirms their coping choices. Review CARD checklist responses for other important information; e.g., history of needle procedures, fainting/dizziness, self-reported fear/behaviour - and solicit help (e.g., colleague, IV team, Child Life) before beginning. Asking about prior experiences engages patients and families to identify issues and build therapeutic relationship.
Adult interactions that can undermine a child's fear/coping.	a) <i>"I've been here for ____ years and I found it helpful when children/parents do ____."</i>	a) May be perceived as paternalistic and doesn't consider individual patient/family preferences.	a) <i>"We ask kids about making a coping plan to help make the procedure more positive. We let kids make their own choices about what they want because different kids can find</i>	a) Normalizes asking kids about their choices and involving them; doesn't assume that we know what they want to do.

Let's talk a little bit more about...

Engagement

Education
Engagement

Environment
Engagement



CARD CHECKLIST:

What cards are you playing today?

Your hospital visit today includes a needle procedure. We use the CARD (Comfort Ask Relax Distract) system to help make getting needles easier for kids. Tell us how to make your needle more comfortable for you today by filling in our CARD checklist.

CARD System	Choose all options you want for your procedure
Comfort What would you like to make it more comfortable?	<input type="checkbox"/> Numbing cream to make the needle hurt less <input type="checkbox"/> Person I want to be with me (nobody or give name): _____ <input type="checkbox"/> Other comforts: _____
Ask What questions do you have?	<input type="checkbox"/> What will happen? <input type="checkbox"/> How will it feel? <input type="checkbox"/> Other questions: _____
Relax How do you want to keep calm?	<input type="checkbox"/> No or low levels of noise (noise cancelling headphones) <input type="checkbox"/> Take deep belly breaths (like blowing up a balloon) <input type="checkbox"/> Other ways to relax: _____
Distract Do you want to be distracted?	<input type="checkbox"/> Keep my eyes closed/look away <input type="checkbox"/> Tell me when it will happen <input type="checkbox"/> Talk to me about something I like <input type="checkbox"/> Play with a toy or electronic device (like a tablet, iPad) from home <input type="checkbox"/> Play with a toy or electronic device from the hospital <input type="checkbox"/> Other distractions: _____


Did you know about CARD before coming today?
☐ Yes -> If Yes, did you play the CARD online game? ☐ Yes ☐ No
☐ No

How old are you? _____
Which of the following best describes you? ☐ Girl ☐ Boy Or, I am: _____

Some people are afraid of needles. How afraid are you? ☐ Not at all ☐ A little bit ☐ Medium amount ☐ A lot

Do you ever get really dizzy or even faint during needles? ☐ Yes ☐ No

Tell us about anything else you want us to know: _____



BUZZY BEE

Recommended for ages 4+

WHAT IS BUZZY?

BUZZY is a small vibrating bee. BUZZY helps block sharp pain and provides distraction when giving injections or other medical procedures.

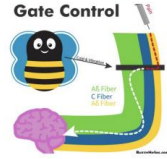
GATE CONTROL THEORY OF PAIN

When nerves receive non-painful signals (e.g. vibration), the brain closes the gate on pain signals.

BUZZY goes between the **pain** and the **brain**.

HOW DOES BUZZY WORK?


Gate Control



HOW DO I USE BUZZY?

- Press the button/switch on top of BUZZY to turn it on.
- Place BUZZY on the site of the injection for 30-60 seconds.
- Move BUZZY so it is sitting immediately above the tourniquet and secure there using a hand.

www.buzzy4shots.com.au



CARD Issue 3, No. 2, August 30, 2023

Playing your CARDS so everyone wins

Dates: June 19, 2023, to August 15, 2023

The CARD 4E "play" - Engagement

Winning play of the week!

- 13 patients tried the CARD game and all of them (100%) liked playing the games. Patients said that there are enough options to keep them busy during their appointment.
- Parents/caregivers liked how the CARD game distracted their children.

Feedback: from child
"I liked listening to the CARDS. It made me less scared."

Feedback: from tech
"The QR code is easy to offer. Parents and kids are able to use the game with no issues."

More about this play:

- The CARD game contains an educational component and a distraction component.
- Fun fact:** Did you know that some of Nuclear Medicine's very own staff are featured as voice actors in the CARD game? Scan the QR code below to explore the game and see if you can identify the voices!

More about this play:

Objective:

- The CARD game educates patients about coping strategies they can use. It also includes distraction games patients can play before and during procedures.

Rationale:

- Patients are unprepared for needle procedures and often do not know how to cope. Also, waiting times can lead to increased fear and anxiety for patients.
- The CARD game educates and prepares patients about available coping options.
- The CARD game includes distraction activities patients can use before and during procedures.

What's next for this play?


- Mention the CARD game to patients after giving them the CARD checklist.

The next play (CARD 4E):

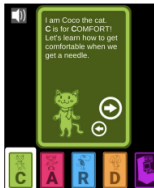
- Continue to play CARD! Let us know if you have any suggestions to improve CARD.

Thank you!

Thanks for playing to make needles a more positive experience! For comments/suggestions, contact Victoria Gudrak at: victoria.gudrak@gmail.com



Tech Tip: Techs can draw attention to the CARD game QR code at the top right corner of the CARD checklist. Patients can start to play while waiting for the numbing cream and their appointment.



The CARD Checklist!



CARD CHECKLIST:

What cards are you playing today?

Scan to play
CARD game



Your hospital visit today includes a needle procedure. We use the CARD (Comfort Ask Relax Distract) system to help make getting needles easier for kids. Tell us how to make your needle more comfortable for you today by filling in our CARD checklist.

CARD System	Choose all options you want for your procedure
<u>Comfort</u> What would you like to make it more comfortable?	<input type="checkbox"/> Numbing cream to make the needle hurt less <input type="checkbox"/> Person I want to be with me (nobody or give name): _____ <input type="checkbox"/> Other comforts: _____
<u>Ask</u> What questions do you have?	<input type="checkbox"/> What will happen? <input type="checkbox"/> How will it feel? <input type="checkbox"/> Other questions: _____
<u>Relax</u> How do you want to keep calm?	<input type="checkbox"/> No or low levels of noise (noise cancelling headphones) <input type="checkbox"/> Take deep belly breaths (like blowing up a balloon) <input type="checkbox"/> Other ways to relax: _____
<u>Distract</u> Do you want to be distracted?	<input type="checkbox"/> Keep my eyes closed/look away <input type="checkbox"/> Tell me when it will happen <input type="checkbox"/> Talk to me about something I like <input type="checkbox"/> Play with a toy or electronic device (like a tablet, iPad) from home <input type="checkbox"/> Play with a toy or electronic device from the hospital <input type="checkbox"/> Other distractions: _____

Did you know about CARD before coming today? ☐ Yes ☐ No

If yes, did you play the CARD online game? ☐ Yes ☐ No

How old are you? _____

Which of the following best describes you? ☐ Girl ☐ Boy Or, I am: _____

Some people are afraid of needles. How afraid are you?

☐ Not at all ☐ A little bit ☐ Medium amount ☐ A lot

Do you ever get really dizzy or even faint during needles? ☐ Yes ☐ No

Tell us about anything else you want us to know: _____

Winning play of the week!

Patient feedback about the CARD checklist:

- 17 patients used the CARD checklist and **94%** (16/17) reported **CARD helped them during their needle procedure!**
- Top reasons why CARD helped: "Made people help" (65%), "Made it hurt less" (59%), "Made it less scary" (53%) and "Made people listen" (47%).

More about this play:

Objective:

- Invite participation of patients (and families) to learn about and choose coping strategies for their needle procedures.
- Includes:
 - 1) Providing all patients with CARD checklist at appointment check-in
 - 2) Confirming and supporting patient coping choices from the checklist during needle procedures.

Rationale:

- Involving patients as active participants and respecting their coping choices promotes patient and family-centred care and improves satisfaction with care.
- Educating patients about how to cope with needles helps them to build skills they need to deal with stressful situations and promotes mental health.

CARD CHECKLIST: What cards are you playing today?

Your hospital visit today includes a needle procedure. We use the CARD (Comfort Ask Relax Refuse) system to help make getting needles easier for kids. Tell us how to make your needle visit comfortable for you today by filling in our CARD checklist.

CARD System	Choose all options you want for your procedure
Comfort What would you like to make it more comfortable?	<input type="checkbox"/> Bumping, wiggling or making the needle feel less <input type="checkbox"/> Person next to me with me (family or friend) <input type="checkbox"/> Other comfort: _____
Ask What questions do you have?	<input type="checkbox"/> When will it happen? <input type="checkbox"/> How will it feel? <input type="checkbox"/> Other questions: _____
Relax How do you want to keep calm?	<input type="checkbox"/> Use a few words of mine (like counting/imagining) <input type="checkbox"/> Take deep belly breaths (like blowing up a balloon) <input type="checkbox"/> Other ways to relax: _____
Refuse Do you want to be done with it?	<input type="checkbox"/> Keep my eyes closed/tighten <input type="checkbox"/> Tell me when it will happen <input type="checkbox"/> Tell me what about something like <input type="checkbox"/> Play with a toy or electronic device (like a tablet, iPad) from home <input type="checkbox"/> Play with a toy or electronic device (like a tablet, iPad) from home <input type="checkbox"/> Other distractions: _____

Did you know about CARD before coming today? ☐ Yes ☐ No

If you did, did you play the CARD system game? ☐ Yes ☐ No

How old are you? _____

Which of the following best describes you? ☐ Girl ☐ Boy ☐ I am _____

Some people are afraid of needles. How afraid are you?
☐ Not at all ☐ A little bit ☐ Medium amount ☐ A lot

Do you want to get needles done or have them during medical? ☐ Yes ☐ No

Tell us about anything else you want us to know: _____






CARD Checklist

"My experience was better because last time, hospital people were nice, but you guys actually helped."

Feedback: from patient

Feedback: from parent

"CARD helped build self confidence and self advocacy in my child"



Interprofessional collaboration to keep the child at the centre of their care

- Some patients who are seen in Nuclear Medicine will also have needle procedures in other areas of SickKids
- We want patients and families to feel empowered to use their preferred coping strategies for needle procedures
- Awareness of CARD will facilitate this (even if you are not using the CARD system in your area at this time....)
- Example: vascular access team met with them.....For continuity of care, when we call for IV insertions, the Nuclear Medicine Team would like to provide handover to your team about the completed CARD Checklist by:
 1. Adding a comment in Vocera such as "CARD Checklist will be reviewed with the Vascular Access Team upon arrival to Nuclear Medicine"
 2. Once the Vascular Access team arrives, the Nuclear Medicine Technologist will review the checklist to communicate and affirm the child's coping strategies prior to bringing the patient into the room.



Your hospital visit today includes a needle procedure. We use the CARD (Comfort Ask Relax Distract) system to help make getting needles easier for kids. Tell us how to make your needle more comfortable for you today by filling in our CARD checklist.

CARD System	Choose all options you want for your procedure
Comfort What would you like to make it more comfortable?	<input type="checkbox"/> Numbing cream to make the needle hurt less <input type="checkbox"/> Person I want to be with me (nobody or give name): _____ <input type="checkbox"/> Other comforts: _____
Ask What questions do you have?	<input type="checkbox"/> What will happen? <input type="checkbox"/> How will it feel? <input type="checkbox"/> Other questions: _____
Relax How do you want to keep calm?	<input type="checkbox"/> No or low levels of noise (noise cancelling headphones) <input type="checkbox"/> Take deep belly breaths (like blowing up a balloon) <input type="checkbox"/> Other ways to relax: _____
Distract Do you want to be distracted?	<input type="checkbox"/> Keep my eyes closed/look away <input type="checkbox"/> Tell me when it will happen <input type="checkbox"/> Talk to me about something I like <input type="checkbox"/> Play with a toy or electronic device (like a tablet, iPad) from home <input type="checkbox"/> Play with a toy or electronic device from the hospital <input type="checkbox"/> Other distractions: _____

Did you know about CARD before coming today? ☐ Yes ☐ No

If yes, did you play the CARD online game? ☐ Yes ☐ No

How old are you? _____

Which of the following best describes you? ☐ Girl ☐ Boy Or, I am: _____

Some people are afraid of needles. How afraid are you?

☐ Not at all ☐ A little bit ☐ Medium amount ☐ A lot

Distraction Carts- the why, the where, the when, the how and the who!

- **Why-** Distraction carts reduce fear cues by making the environment more child friendly. Patients do not know what they are not aware of.
- **Where-** Ensure the Distraction cart is within arms reach and at eye level (as much as possible) for the patient.
- **When-** When a patient enters the procedure/imaging room, before, during and after the needle procedure.
- Especially important if the patient indicated “use a distraction item from the hospital” on the CARD Checklist.
- **How-** Invite patients to use the items on the distraction cart! This signifies this is a safe environment that cares about kids.
- **Who-** In order to provide equitable care, distraction items must be offered to each patient.



Before



After

Buzzy Bee!

- We have found Buzzy to be an exceptionally helpful distraction tool during needle procedures and have received very positive feedback from patients and families.
- Buzzy is simple and quick to implement.
- Can help families feel involved in their child's care.
- Is a tool that families can use independently outside of the hospital setting.



BUZZY BEE

Recommended for ages 4+



WHAT IS BUZZY?

BUZZY is a small vibrating bee. BUZZY helps block sharp pain and provides distraction when giving injections or other medical procedures.

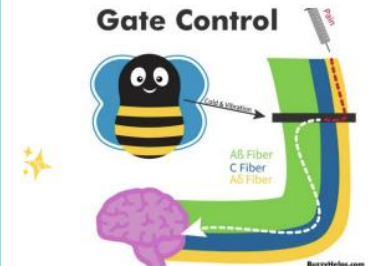
GATE CONTROL THEORY OF PAIN

When nerves receive non-painful signals (e.g. vibration), the brain closes the gate on pain signals.

BUZZY goes between the **pain** and the **brain**.

HOW DOES BUZZY WORK?

Gate Control



HOW DO I USE BUZZY?



- 1** Press the button/switch on top of BUZZY to turn it on.
- 2** Place BUZZY on the site of the injection for 30-60 seconds.
- 3** Move BUZZY so it is sitting immediately above the tourniquet and secure there using a hand.

The CARD game!

The CARD game educates patients about coping strategies they can use. It also includes distraction games patients can play before and during procedures!



Patients are often unprepared for needle procedures and often do not know how to cope. Also, waiting times can lead to increased fear and anxiety for patients.

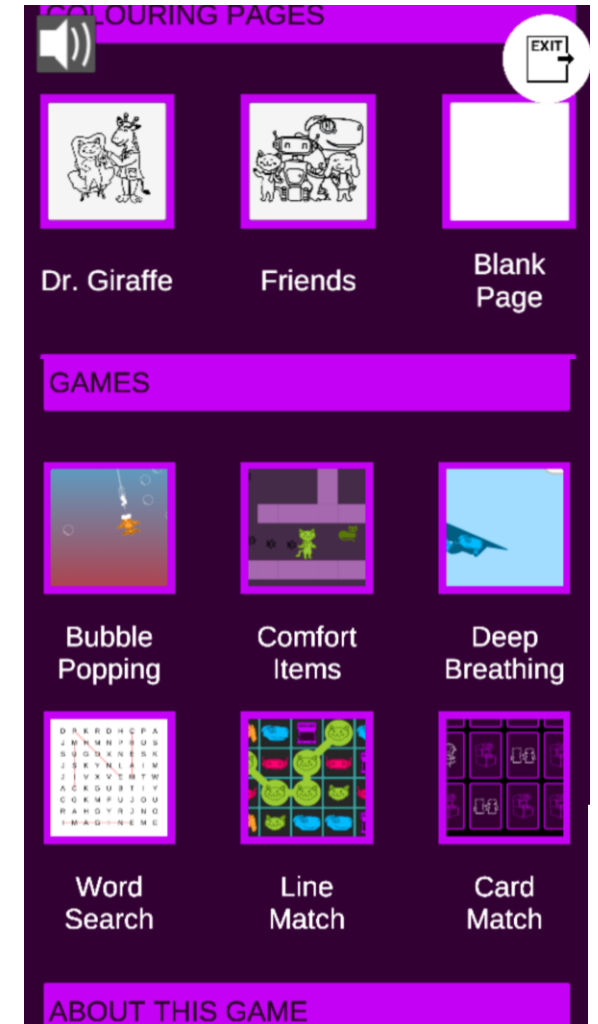
The CARD game educates and prepares patients about available coping options. Younger children can play with their parents.

The CARD game includes distraction activities patients can use before and during procedures

CARD game for children 5-12 years



- Characters introduce CARD and then educate players about coping strategies in the different letter categories.
- Minigames (e.g., breathing game) are embedded for practice and reinforcement of learning. Players then play a variety of minigames in the arcade (e.g., line matching).



The CARD game!

The CARD game educates patients about coping strategies they can use. It also includes distraction games patients can play before and during procedures!

CARD Issue 3, No. 2, August 30, 2023
Playing **your** CARDS so everyone wins

SickKids **The CARD 4E "play" – Engagement**

Dates: June 19, 2023, to August 15, 2023

Winning play of the week!

- 13 patients tried the CARD game and all of them (100%) liked playing the games. Patients said that there are enough options to keep them busy during their appointment.
- Parents/caregivers liked how the CARD game distracted their children.

More about this play:

- The CARD game contains an educational component and a distraction component.
- Fun fact:** Did you know that some of Nuclear Medicine's very own staff are featured as voice actors in the CARD game? Scan the QR code below to explore the game and see if you can identify the voices!

More about this play:

Objective:

- The CARD game educates patients about coping strategies they can use. It also includes distraction games patients can play before and during procedures.

Rationale:

- Patients are unprepared for needle procedures and often do not know how to cope. Also, waiting times can lead to increased fear and anxiety for patients.
- The CARD game educates and prepares patients about available coping options.
- The CARD game includes distraction activities patients can use before and during procedures.

What's next for this play?

- Mention the CARD game to patients after giving them the CARD checklist.

The next play (CARD 4E):

- Continue to play CARD! Let us know if you have any suggestions to improve CARD.

Feedback: from child
"I liked listening to the CARDS. It made me less scared."

Feedback: from tech
"The QR code is easy to offer. Parents and kids are able to use the game with no issues."

Tech Tip: Techs can draw attention to the CARD game QR code at the top right corner of the CARD checklist. Patients can start to play while waiting for the numbing cream and their appointment.

Scan to play CARD game

Thank you!

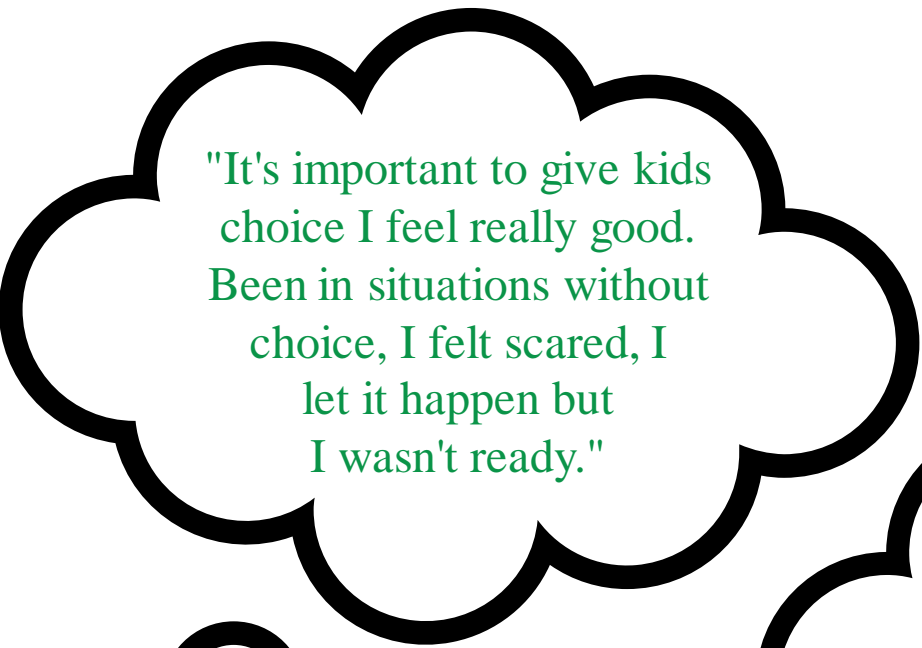
Thanks for playing to make needles a more positive experience! For comments/suggestions, contact Victoria Gudzak at: victoria.gudzak@mail.utoronto.ca

The CARD game contains an educational component and a distraction component.

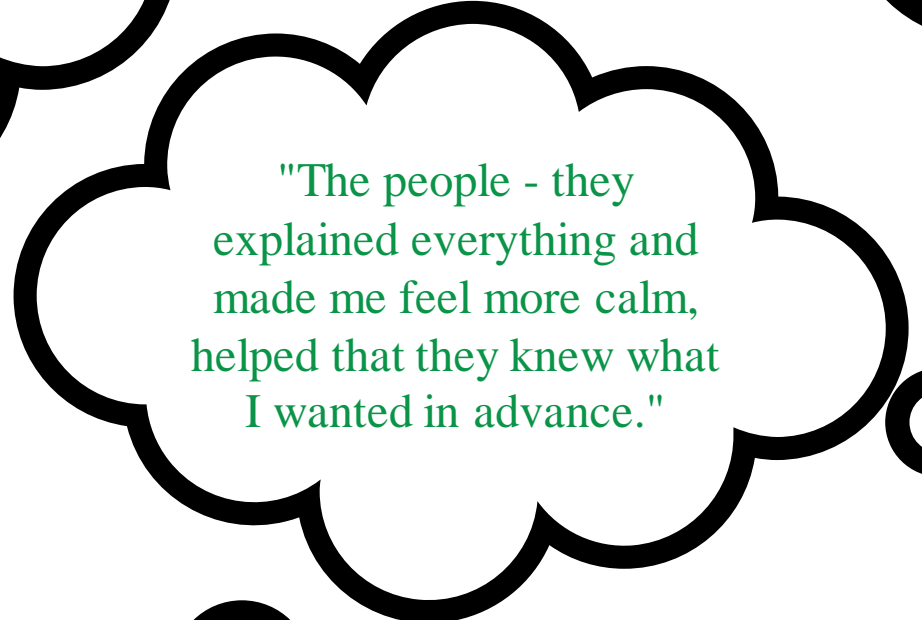
Fun fact: Did you know that some of Nuclear Medicine's very own staff are featured as voice actors in the CARD game?



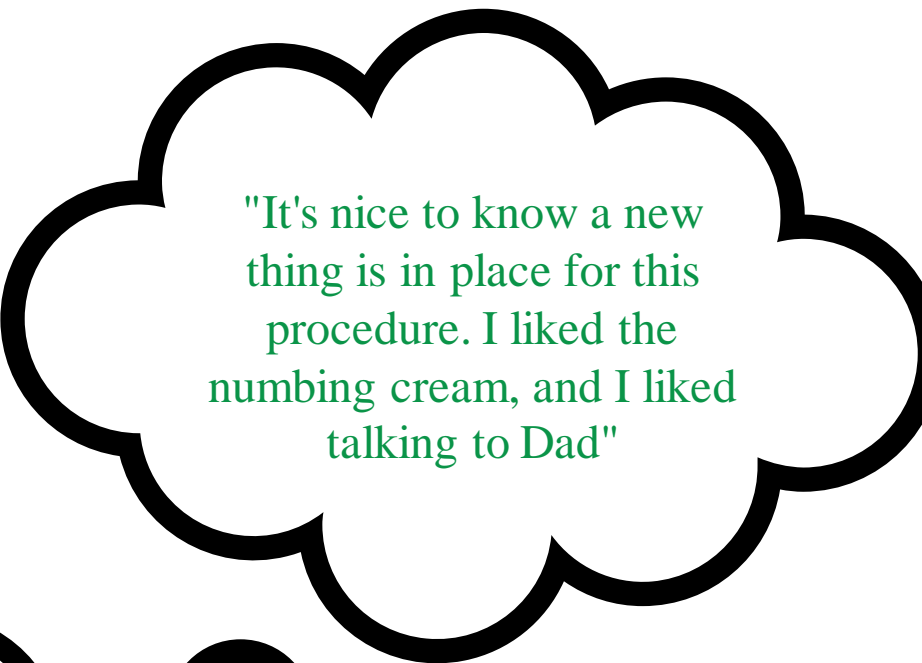
Feedback from patients



"It's important to give kids choice I feel really good. Been in situations without choice, I felt scared, I let it happen but I wasn't ready."

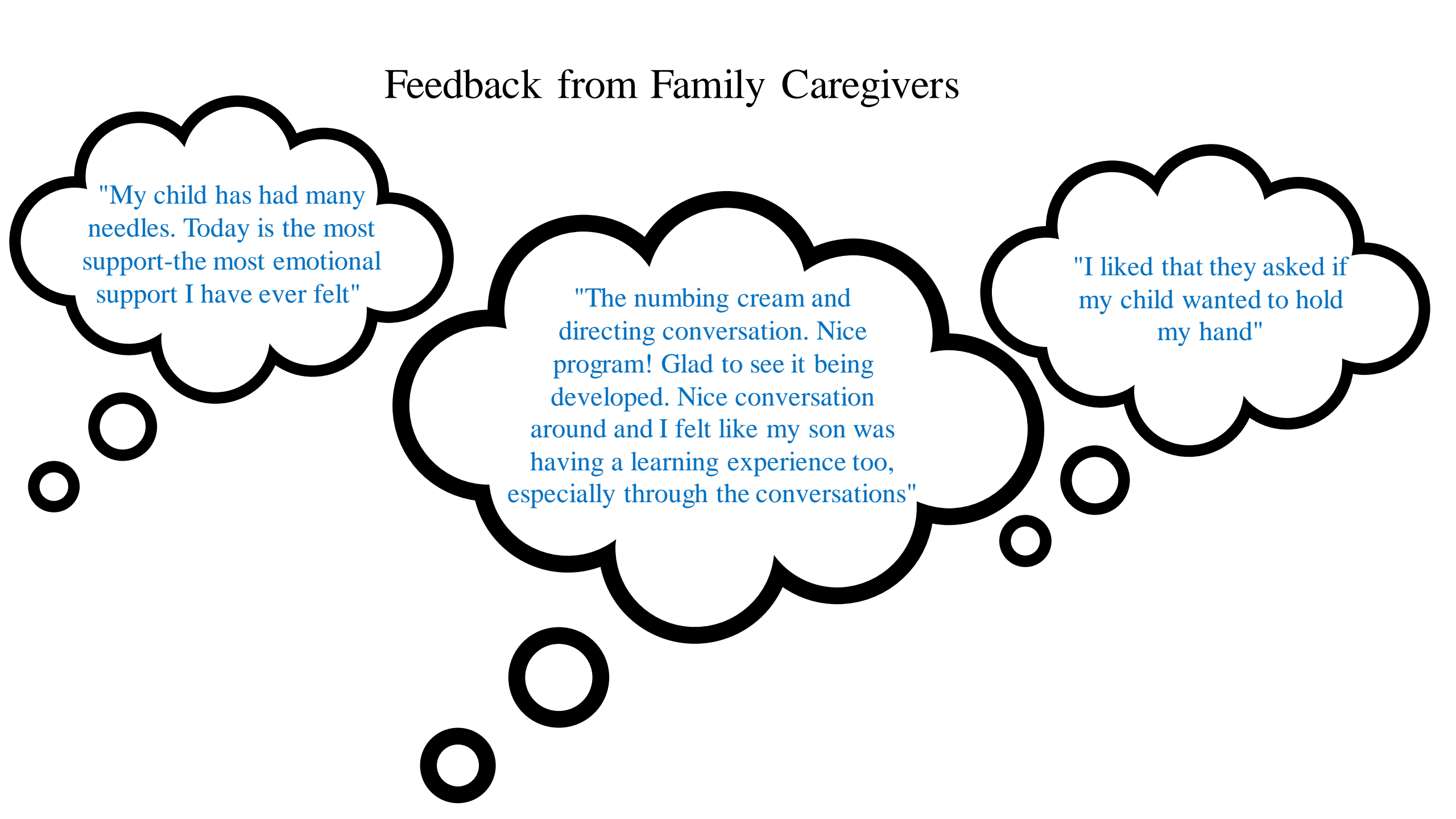


"The people - they explained everything and made me feel more calm, helped that they knew what I wanted in advance."



"It's nice to know a new thing is in place for this procedure. I liked the numbing cream, and I liked talking to Dad"

Feedback from Family Caregivers

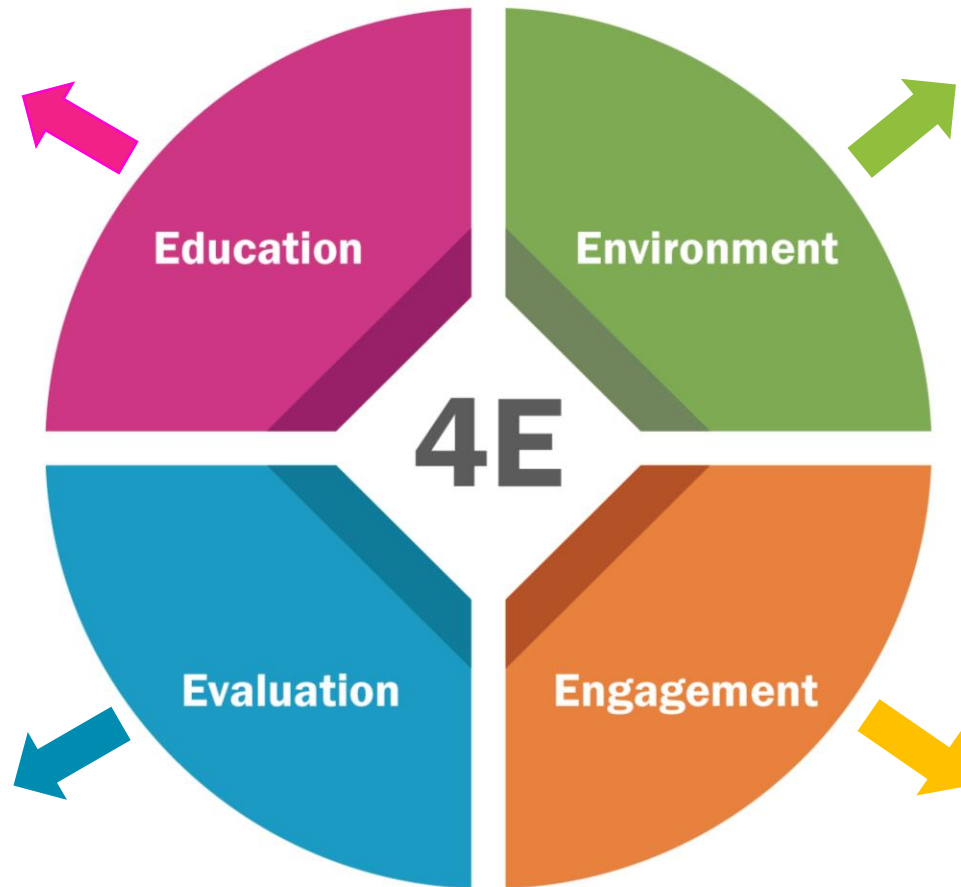


"My child has had many needles. Today is the most support-the most emotional support I have ever felt"

"The numbing cream and directing conversation. Nice program! Glad to see it being developed. Nice conversation around and I felt like my son was having a learning experience too, especially through the conversations"

"I liked that they asked if my child wanted to hold my hand"

CARD



Who...

- Providers/staff
- Patients/families

When...

- On appointment day
- Ahead of time (booking)

What...

- Minimize fear cues
- Distractions and other coping interventions
- Space for support person with seating
- Privacy

Who...

- Patient/family surveys
- Staff surveys

How...

- Quality improvement methodology (iterative)

How...

- Coping-promoting behaviours
- Assess symptoms (fear, pain, dizziness)
- Invite participation, answer questions
- Support CARD (coping) choices
- Procedure technique

BEFORE (Healthcare Provider led) Pre-CARD Implementation in Nuclear Medicine

Environment

- Minimize fear cues (hiding needles, **child-friendly injection trays**)
- Distractions and other coping interventions
- ✓ Space for support person with seating
- ✓ Privacy without interruptions

Environment

AFTER (Child-led) Post- CARD Implementation in Nuclear Medicine

Environment

- ✓ Minimize fear cues (hiding needles, **child-friendly injection trays**)
- ✓ Distractions and other coping interventions
- ✓ Space for support person with seating
- ✓ Privacy without interruptions



Orange- variable
Green-occurred/occurs
Red- Never



BEFORE (Healthcare Provider led)
Pre-CARD Implementation in Nuclear Medicine

AFTER (Child-led)
Post- CARD Implementation in Nuclear Medicine

Engagement

- Assess symptoms (pain, fear, dizziness)
- Invitation to participate in care (provider-led=>vapocoolant)
- Answer questions
- Support (coping) choices
- Procedure technique (sitting)
- Collaboration with Child Life (Reactive)
- Patient and parent/caregiver surveys

Engagement

Engagement

- Assess symptoms (pain, fear, dizziness)
- Invitation to participate in care (CARD Checklist=>equitable)
- Answer questions
- Support CARD (coping) choices
- Procedure technique (sitting)
- Collaboration with Child Life (Proactive)
- Patient and parent/caregiver surveys

CARD CHECKLIST: What cards are you playing today?

Can't play CARD game?

Your hospital visit today includes a needle procedure. We use the CARD (Comfort Ask Relax Distract) system to help make getting needles easier for kids. Tell us how to make your needle more comfortable for you today by filling in our CARD checklist.

CARD System	Choose all options you want for your procedure
Comfort	<input type="checkbox"/> Numbing cream to make the needle hurt less <input type="checkbox"/> Person I want to be with me (nobody or give name): <input type="checkbox"/> Other comforts:
Ask	<input type="checkbox"/> What will happen? <input type="checkbox"/> How will it feel? <input type="checkbox"/> Other questions:
Relax	<input type="checkbox"/> No or low levels of noise (noise cancelling headphones) <input type="checkbox"/> Take deep belly breaths (like blowing up a balloon) <input type="checkbox"/> Other ways to relax:
Distract	<input type="checkbox"/> Keep my eyes closed/look away <input type="checkbox"/> Tell me when it will happen <input type="checkbox"/> Talk to me about something I like <input type="checkbox"/> Play with a toy or electronic device (like a tablet, iPad) from home <input type="checkbox"/> Play with a toy or electronic device from the hospital <input type="checkbox"/> Other distractions:

Did you know about CARD before coming today? ☐ Yes ☐ No

If yes, did you play the CARD online game? ☐ Yes ☐ No

How old are you? ☐ Girl ☐ Boy Or, I am: _____

Some people are afraid of needles. How afraid are you?
☐ Not at all ☐ A little bit ☐ Medium amount ☐ A lot

Do you ever get really dizzy or even faint during needles? ☐ Yes ☐ No

Tell us about anything else you want us to know: _____

CARD ENGAGEMENT RESOURCE: Communication strategies to support positive needle procedure experiences for everyone

This resource presents real-world examples of phrases/approaches that can be used by health care providers while engaging patients and others during needle procedures to support patient coping and improve the experiences for patients, health care providers and onlookers (e.g., parents/caregivers).

The situation	✗ Instead of saying/doing this...	Reason(s) why this is not the preferred approach	✓ Try saying/doing this instead...	Reason(s) why this is the preferred approach
A provider offers a child a coping strategy during a needle procedure.	"Now look away/take a deep breath/look at the iPad (or another coping strategy)."	Provider-led suggestions may go against the preferred coping strategies of children and increase distress.	"I see you said you wanted to look away/take deep belly breaths/look at the iPad (or another coping strategy) on your CARD checklist. Is that still ok/what you want to do?"	Invites patient participation and confirms their coping choices. Review CARD checklist responses for other important information: e.g., history of needle procedures, fainting/dizziness, self-reported fear/behaviour - and solicit help (e.g., colleague, IV team, Child Life) before beginning.
Adult interactions that can undermine a child's fear/coping.	a) "I've been here for _____ years and I found it helpful when children/parents do _____."	a) May be perceived as paternalistic and doesn't consider individual patient/family preferences.	a) "We ask kids about making a coping plan to help make the procedure more positive. We let kids make their own choices about what they want because different kids can find _____"	a) Normalizes asking kids about their choices and involving them; doesn't assume that we know what they want to do.

CARD Documentation

CARD checklist deployed? ☐ No ☐ Yes
IV team involved? ☐ No ☐ Yes
Child Life involved? ☐ No ☐ Yes

FLACC Pain Score (Scale of 0-10): _____

Patient 5-7 (Scale of 0-10): _____

FACES-R Pain Score: _____
FACES Fear Score: _____

Patient Age 8 and above (Scale of 0-10): _____

NRS Pain Score: _____
NRS Fear Score: _____

MRT(N) _____

Orange - variable
Green-occurred/occurs
Red-Never

BEFORE (Healthcare Provider led) Pre-CARD Implementation in Nuclear Medicine

Education

- Providers/staff (procedure-related, pain management, Comfort Promise principles)
- Patients/families (Comfort Promise bundle elements)

When...

- On appointment day
- Ahead of time (booking)



Education

AFTER (Child-led) Post- CARD Implementation in Nuclear Medicine

Education

- ✓ ALL Providers/staff (CARD training, meetings, staff debriefs, communication resources)
- ✓ Patients/families (CARD game, CARD checklist, posters, CARD t-shirts)

When...

- ✓ On appointment day
- Ahead of time (booking) - Trying!



CARD staff debrief survey

Date: _____ Location: _____ Time: _____
Who was present: _____

Weekly debrief sessions provide opportunities for staff to share successes, challenges, and suggestions, empower them to help each other learn from their experiences and continue to inform the implementation of CARD. Reflect on needle procedures you have been involved with over the last week with these questions as a guide. Be as specific as you can when answering the questions.

You can choose to include your name with the feedback below or answer anonymously.

1. What went well and why?

2. What didn't go well and why?

3. Did the team work productively together?

4. What can we do differently to make it even better next time?



Orange - variable
Green-occurred/occurs
Red- Never

BEFORE (Healthcare Provider led) Pre-CARD Implementation in Nuclear Medicine

Evaluation

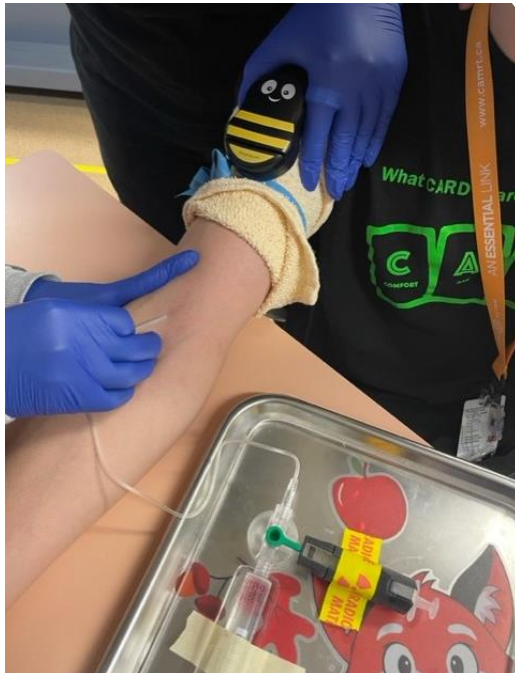
- Patient and parent/caregiver surveys
 - Staff surveys
- How...
- Quality improvement methodology (iterative)

Evaluation

AFTER (Child-led) Post- CARD Implementation in Nuclear Medicine

Evaluation

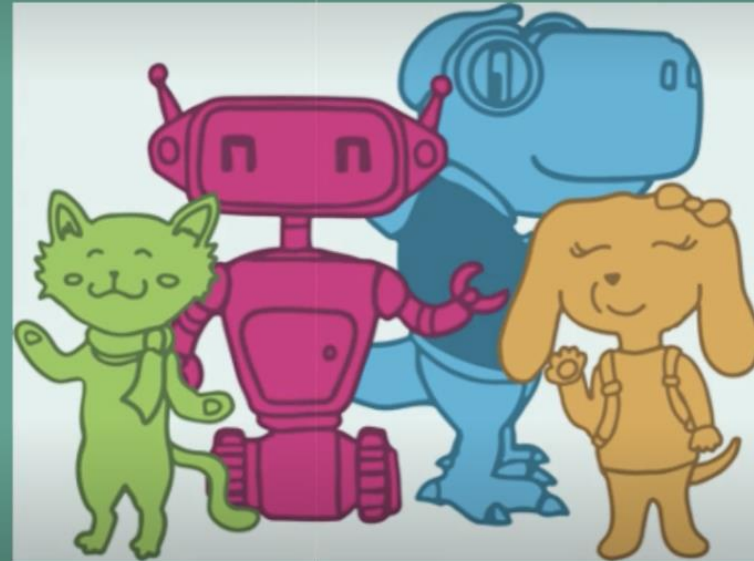
- ✓ Patient and parent/caregiver surveys
 - ✓ Staff surveys
- How...
- ✓ Quality improvement methodology (iterative)



Orange-variable
Green-occurred/occurs
Red- Never

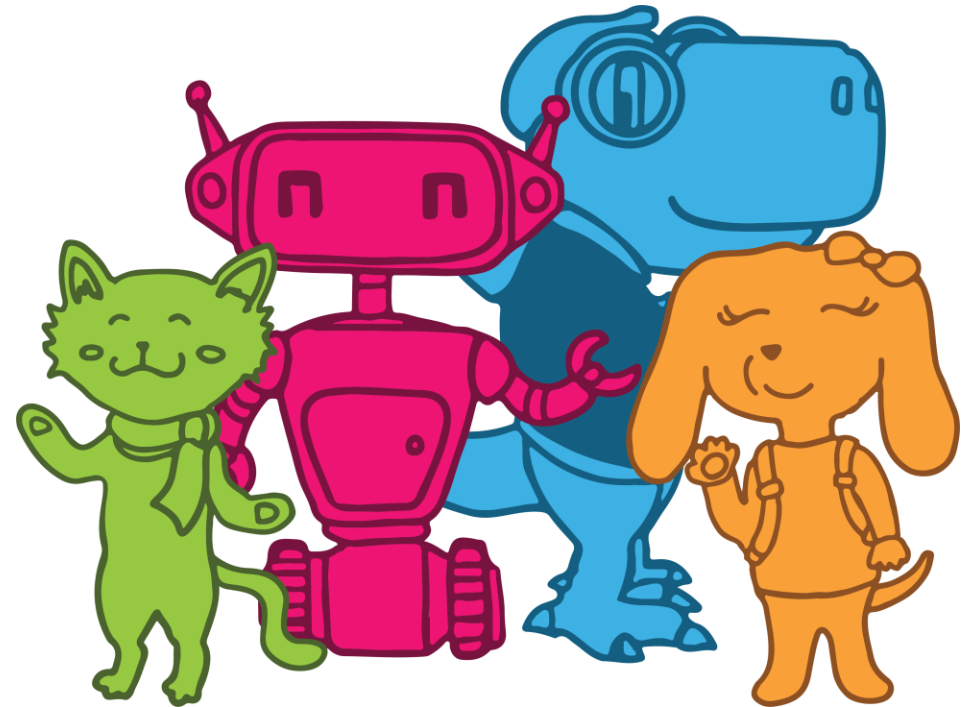


**CARD has successfully
been implemented in
many settings!**



[SickKids CARD video \(2\).mp4](#)

Let's reflect on how you can play **your** CARDS to improve the needle procedure experience in your clinical practice!



Let's reflect on how you can play **your CARDS** to improve the needle procedure experience in your clinical practice!

Who...

- Providers/staff
- Patients/families

When...

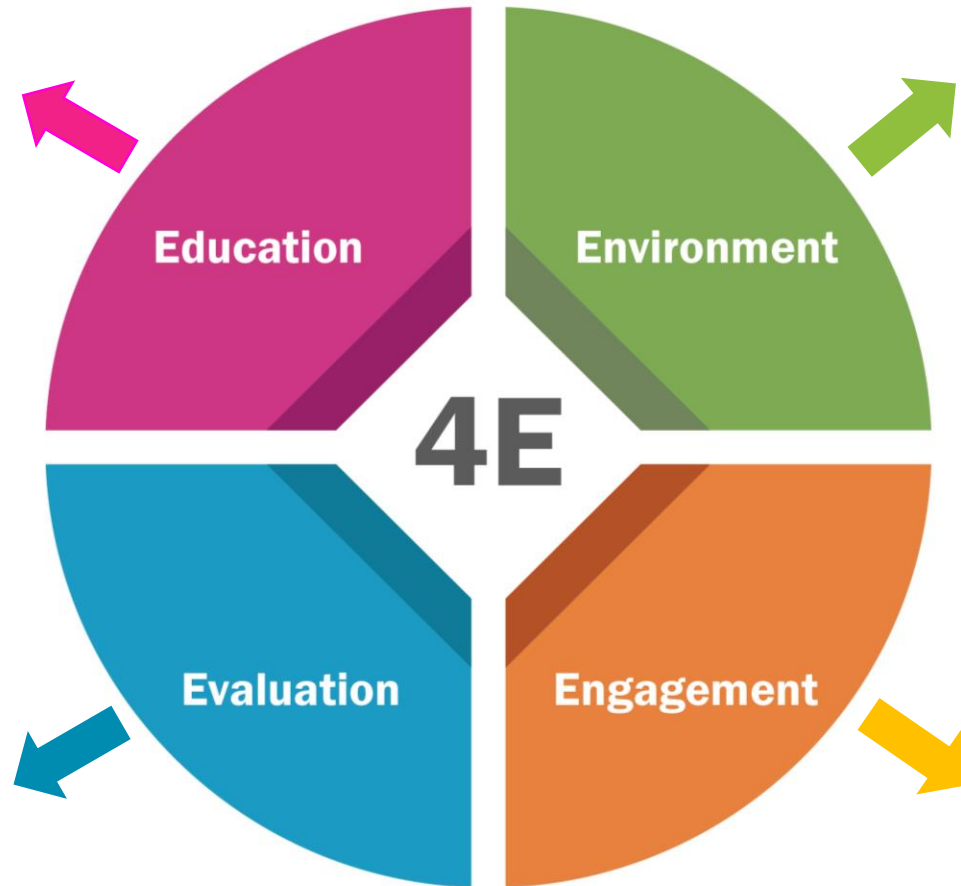
- On appointment day
- Ahead of time (booking)

Who...

- Patient/family surveys
- Staff surveys

How...

- Quality improvement methodology (iterative)



What...

- Minimize fear cues
- Distractions and other coping interventions
- Space for support person with seating
- Privacy

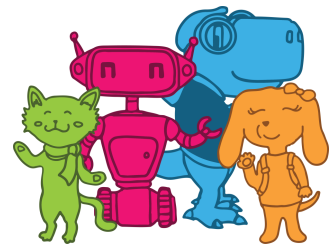
How...

- Coping-promoting behaviours
- Assess symptoms (fear, pain, dizziness)
- Invite participation, answer questions
- Support CARD (coping) choices
- Procedure technique

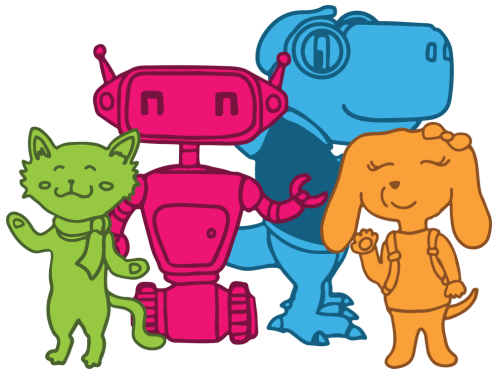
We hope you are as excited to **play your CARDS** as we are!



Thank you!



Any questions??



SickKids[®]



Please connect with us anytime!

Anna Taddio, Sr. Associate Scientist, Child Health Evaluative
Sciences

Email: anna.taddio@utoronto.ca
and anna.taddio@sickkids.ca

Mandy Kohli, Clinical Instructor, Diagnostic and Interventional
Radiology

Email: mandy.kohli@sickkids.ca

Victoria Gudzak, PhD Candidate,
Project Coordinator

Email: victoria.gudzak@mail.utoronto.ca
and victoria.gudzak@sickkids.ca

Dana Kondo, Child Life Specialist, Diagnostic and
Interventional Radiology

Email: dana.kondo@sickkids.ca