

CARDIOLOGY  
2025



Provider Use of Patient  
Portal to Partner with  
Parents of Pediatric  
Acute Care Cardiology  
Patients

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Children's Hospital  
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# BACKGROUND

## Patient Portal: Definition and Use

- Patient portal is a web-based personal health record linked to electronic health records (EHRs), allowing patients access to their healthcare information and the facilitation of communication with providers.
- Typically includes direct provider messaging, test results, clinical notes, and discharge paperwork.
- Portal use has increased significantly in the past 10 years, but mainly in the outpatient healthcare setting.

# REVIEW OF LITERATURE

- Systematic review by Bangilan et al. 2022: Physicians perceive inpatient portals as beneficial to patients and saw an improvement in communication as a result.
- Systematic review by Kelly et al. 2018: Most patient and caregiver participants were interested in patient portal use while inpatient, used it when offered, found it easy and/or useful.
  - 5 studies reviewed were in a pediatric hospital setting.
  - Hospitalized children experience 3x more harm from medical errors than adults.
  - Engaging parents in inpatient care may improve safety and “parent portals” provide a unique opportunity to share healthcare information and promote engagement.
- Prospective study by Kelly et al. 2017: An inpatient pediatric med/surg unit provided families with a tablet computer to access the patient portal and communicate with the inpatient team over a 6-month time period.
  - Most liked features included vitals, medication list, health care team information, and schedules.
  - 90% satisfied with the portal
  - 98% felt it was easy to use
  - 94% felt it improved care
  - 60% felt it improved communication
  - 89% perceived it reduced errors in care
  - 8% found errors in their child’s medication list

# QUALITY IMPROVEMENT PROJECT

- Problem Statement: Utilization of electronic portal communication has not been widely used in the inpatient setting but is frequently used in the outpatient setting for communication between the patient/family and the care team to positive effect.
- Objective: To determine the feasibility of healthcare providers using the patient portal to communicate with caregivers of children admitted to the hospital of an inpatient acute care cardiology service.
- Aims: To demonstrate that the patient portal can be easily used by providers to send daily updates to families who are unable to be at the bedside of their child, and this in turn can improve caregiver-provider communication during inpatient hospitalization.

# METHODS

- PDSA Cycles performed over 6 months to assess feasibility
- Caregiver satisfaction evaluation + feedback elicited via survey sent through the patient portal
- Healthcare provider (APNs) feedback elicited via survey at the end of the final PDSA cycle

**Checking the Status of a Message**

Via the message journal: The message journal allows you to see any messages in the patient's chart in chronological order and allows you to see if a patient has opened a message or not.

1. Click the message of the intended patient (you click once, the message doesn't have to be opened).
2. Click "communicate" in your task bar.
3. Click "message journal" above the patient's name in the new message.
4. Messages are ordered chronologically, scroll down to see the most recent – you can then hover over the patient's name and the message will display "opened" or "pending".

**Via the "Sent Items folder"**

Go to the "Sent Items" tab on your task bar on the left-hand side of the Message Center. Under the tab labeled "Status" it will show whether a message has been "Pending", "Opened", or "Deleted".

"Pending" means the message has been sent to the family but they have not opened it yet.

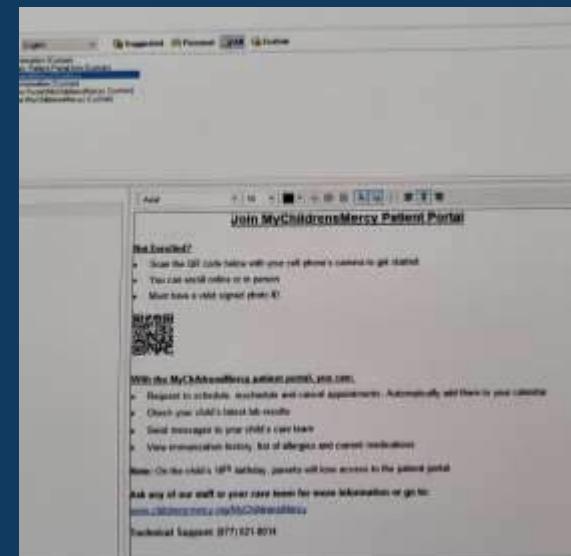
**Continuing A Message Thread in the Pool**

1. Double click message and click "forward" or "reply".
2. Click "to consumer" in top right corner and delete any additional recipients in the "to:" section and "provider" section.
  - 4. If you are replying to a parent's message, you typically will just double check the "to" "cc" "subject" are all correct and the "to consumer" should be automatically clicked.
3. Add the name of your pool to the "CC:" and delete or change anything in the subject line.
4. After sending message, delete the previous thread so only one appears in the pool and it is the most recent message.

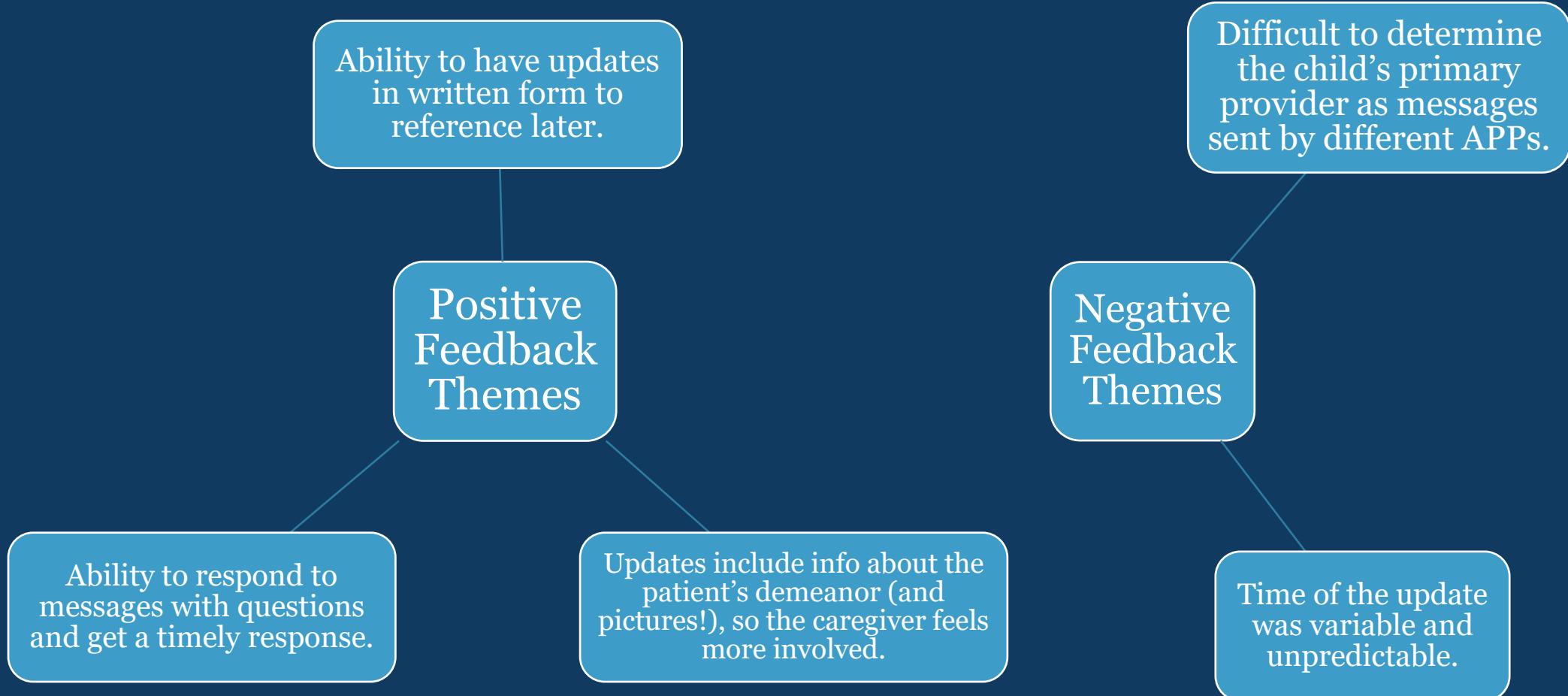
**Additional reminders**

1. Always make sure to CC your pool in every message so the reply comes back to the pool. Messages typically shouldn't come to your personal inbox if you are putting the pool in the and deleting any recipients in the "Provider" box.
2. Be sure to always check and delete any names from the "provider" line.
3. Always delete duplicate messages in the pool and make sure the most recent is in the pool.

Review document on setting up message/document type

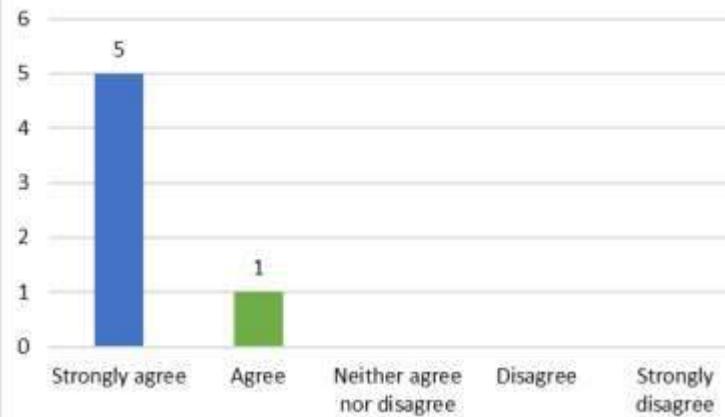


# RESULTS: CAREGIVER FEEDBACK

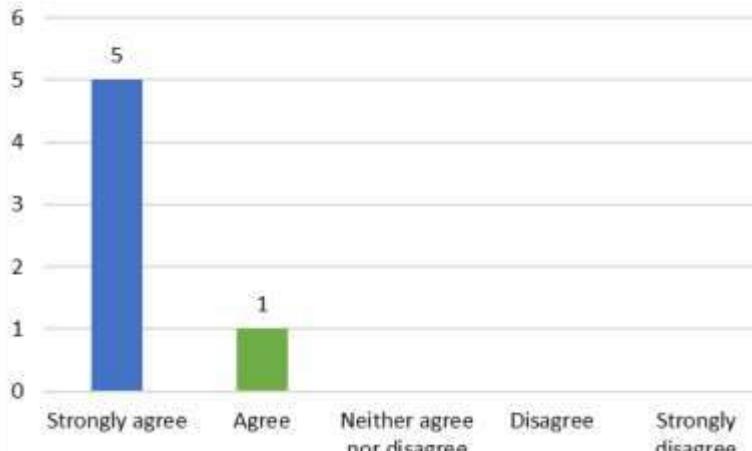


# RESULTS: PROVIDER FEEDBACK

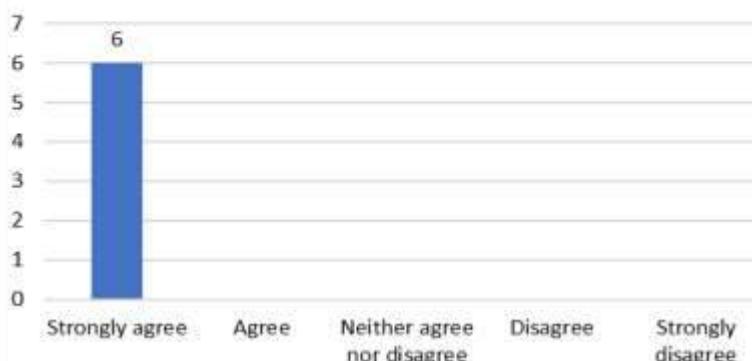
Portal messaging is easy to incorporate into my daily workflow.



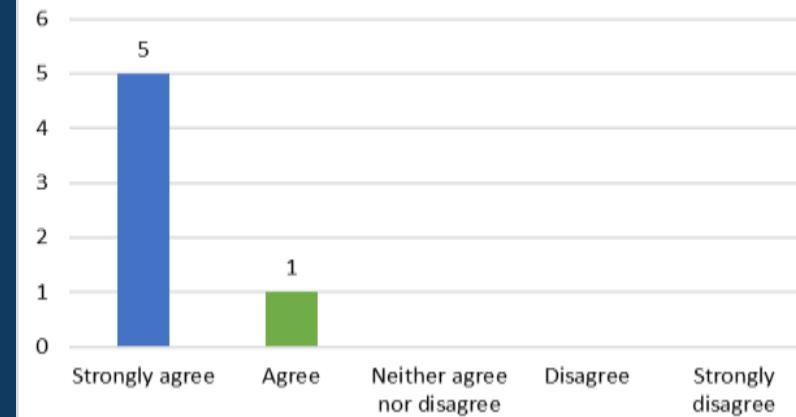
I feel that portal messaging is easy to use.



Portal messaging takes less time than calling caregivers by phone for regular patient updates.



Sending daily portal messages for all my patients is feasible.



# SUCCESS . . .

- QI initiative demonstrated the feasibility of healthcare provider use of the patient portal in providing daily updates to patient caregivers on an inpatient pediatric acute care cardiology service.
- Caregivers and providers both reported positive experiences with patient portal utilization and feel it has the potential to improve caregiver-provider communication.
- Proposed next steps were to expand patient portal utilization to all inpatients on the ACCU as well as to the CICU.

# BUT . . .

- Despite initial success and positive feedback – the patient portal is no longer being used by the ACCU providers to communicate with families on a regular basis.

# CHALLENGES TO FULLY IMPLEMENT & EXPAND

## Healthcare providers

- ACCU = Heart Center APPs + rotating residents every 2-4 weeks
- CICU = Heart Center APPs + rotating fellows every 2 weeks
- Easy to provide daily update, but harder to manage f/u messages and set/meet expectations of families

## Caregivers

- Ease of enrollment
- Must have an email address
- Access reps to initiate process or QR code, but there is a 24-48 hour delay from signing-up to the ability to use the portal
- Disparities
  - Internet access
  - Language
  - Literacy

# FUTURE RECOMMENDATIONS

- Organizational/widespread adoption of patient portals
- More fully evaluate and work to minimize or eliminate barriers prior to project
  - Build on outpatient experience
  - Caregiver/patient access
  - Parental preferences
  - Provider workflow
- Include inpatient providers in any upgrades or redesign of the portal (EHR)
- Improved inpatient provider team support (RN)

# QUESTIONS???

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# REFERENCES & ACKNOWLEDGEMENTS

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- Kelly, M.M., Coller, R.J., & Hoonakker, P.L.T. Inpatient Portals for Hospitalized Patients and Caregivers: A Systematic Review. *Journal of Hospital Medicine*, 13(6), June 2018.
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