

HIMSS¹⁹ CHAMPIONS OF HEALTH UNITE

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Patient Portals: Critical for Consumer Driven Care

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Conflict of Interest

- Lisa Danielpour and Srinivasan Suresh have no real or apparent conflicts of interest to report
- Susan Kressly – Medical Director, Office Practicum

Agenda

- Panel – Introduction & Expertise
- Outline of Opportunity for Everyone to Win: While patient portals are being widely adopted, coaching and engaging patients and families using the personal health record (PHR) to improve outcomes in pediatric care has not been a priority
- Highlights:
 - How a patient portal can be much more than an appointment request and prescription renewal platform
 - Panelists' experiences of using the portal as a tool for education, communication, and care coordination
 - Barriers and opportunities for the entire care team, including patients and families, to effectively use the PHR to prioritize information sharing, patient convenience, and patient safety
 - Unique problems in the care of children (privacy and portal access in adolescents) and safe creation of personal health data
- Q & A



Learning Objectives

- Recognize the value of the patient portal as a patient/family engagement tool (in pediatric care)
- Discuss strategies enabling and refining the portal to educate, collaborate, enhance efficiency, and improve care quality
- Identify opportunities to maximize the impact of the personal health record in communication and care for children with chronic conditions and special health care needs

Personal Health Record vs Portal

- Both can help drive patient/family engagement through many shared features
- Terms are used interchangeably by many, including ONC and AHIMA
- Portals allow family to view information, interact with the health care entity
- PHRs are usually connected/tethered to one health care system and allow the family to interact with their health care data and contribute to it.

<https://patientengagementhit.com/features/how-do-patient-portals-and-personal-health-records-differ>



Lisa's Family Story



The Question That Changed Everything...

Value of PHR

How many of you have had patients who didn't reveal information important to diagnosis?



Lab results can give critical clues that children and other populations may hesitate to reveal



The PHR can give family members a vital tool to watch for signs of trouble

Josh's Difficult Journey

- A whole different take on being unique and special
- 8-month stay in two hospitals in 2015
- Dramatic medical flight to CHOP



Josh's Difficult Journey

- Imagine being in hospital most of 8th and 9th grade
- So grateful for nurturing care at Rainbow
- Ancillary conditions, challenges
- Stages of anger to coping, maturing



Angie's Garden at
Rainbow Babies &
Children's Hospital



Josh's Difficult Journey

- Fulfillment from being part of NIH research
- Fighting spirit and hope for the future
- Biomedical engineering to invent devices and help people
- Learning self-care and advocacy



“Show of Hands” time...

1. How many of you have sent or received and processed a message on a patient portal?
2. How many of you have used a portal for your own healthcare?
3. How many of you who have not used a portal know if your doctor's office even has one?

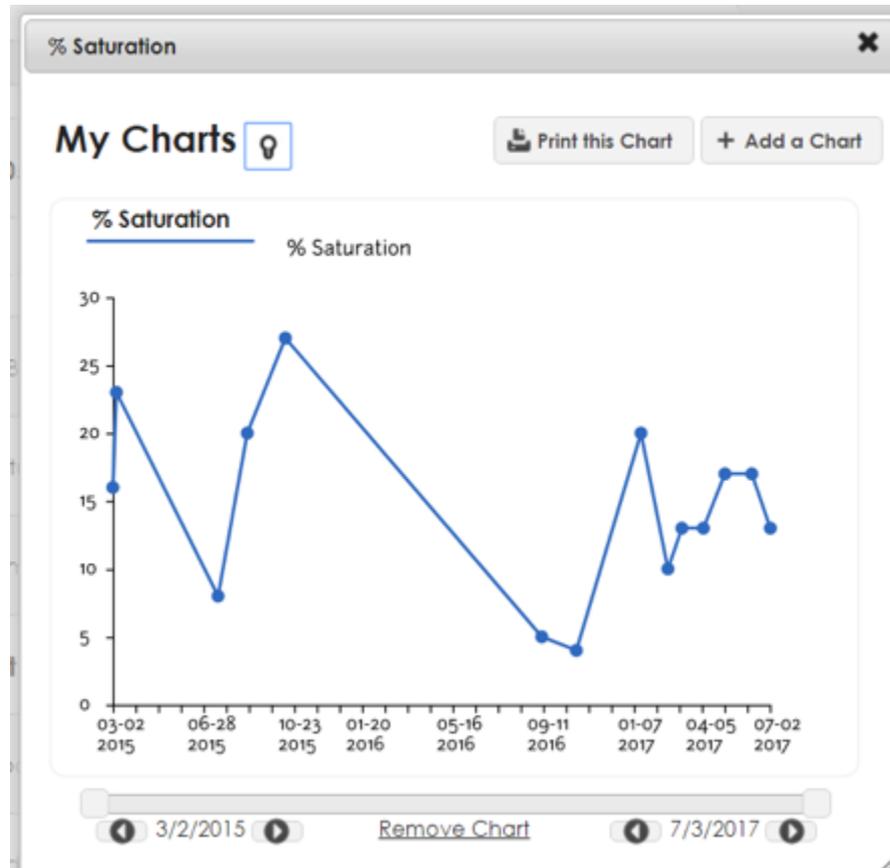
Why the PHR Is Important

- Empowers patients with access to information
- Enhances patient safety, experience, communication
- Critical role in chronic illness to learn what to track and monitor
- Healthy patients to ensure preventive care, monitor annual PCP visits, vaccinations to avoid developing problems
- Important for self-care and self-advocacy
- Physician and nursing tool to coach and motivate patients

Test Name	Value
Sedimentation Rate, Erythrocyte 4/11/2018	1
C Reactive Protein, Serum 4/11/2018	1
Comprehensive Metabolic Panel 4/11/2018	15
Complete Blood Count + Differential 4/11/2018	20
Gamma Glutamyl Transferase, Serum 4/11/2018	1
Vitamin D 25-Hydroxy 3/9/2018	1
Gamma Glutamyl Transferase, Serum 3/9/2018	1
Comprehensive Metabolic Panel 3/9/2018	15
C Reactive Protein, Serum 3/9/2018	1
Sedimentation Rate, Erythrocyte 3/9/2018	1
Vitamin B12, Serum 3/9/2018	1
Iron + TIBC, Serum 3/9/2018	3
Reticulocyte Count 3/9/2018	4
Complete Blood Count + Differential 3/9/2018	20

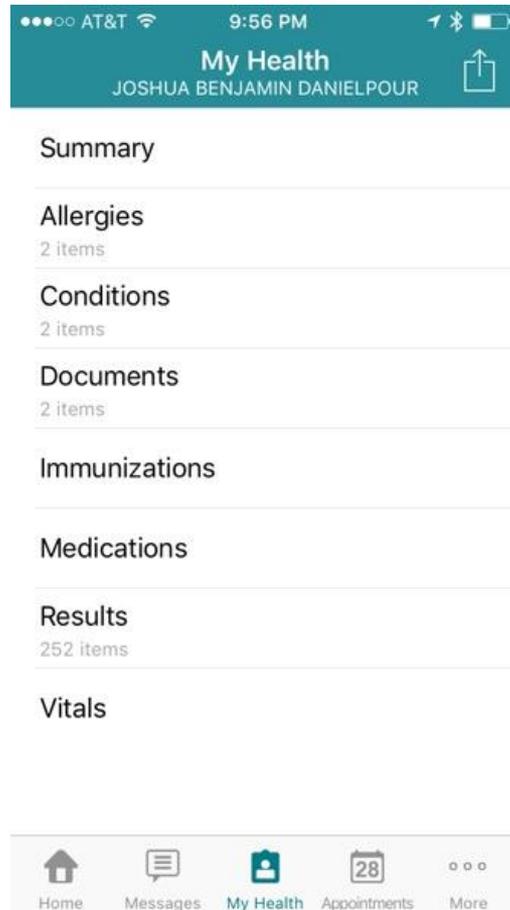
PHR Saves Patient and Family Time

- Click on the chart icon and instantly see trend over time
- Quickly see context of lab values
- Use physician messaging to ask a quick question
- Helps keep patient's caregiving family strong and healthy



PHR Saves Patient and Family Time

- Access PHR on the fly through the app during an ER visit
- Coordinate care, share labs and medical tests between different health systems
- Can think better about questions to ask ahead of appointments



Multiple Institutions Through One EHR Portal

- Able to see Josh's Rainbow and NIH medical files through one handy portal

New	Education	Result	Date	Value	Range	Provider	Source	Options
Reticulocyte Count 07/03/2017 (4 items)								
		Retic %	07/03/2017	2.5 %	LOW NORMAL HIGH	Komlos, Me...	University Hospit...	
		Retic #	07/03/2017	0.125 x10E1 ...	LOW NORMAL HIGH	Komlos, Me...	University Hospit...	
		Immature Retic Fractl...	07/03/2017	10.7 %	LOW NORMAL HIGH	Komlos, Me...	University Hospit...	
		Retic-HB	07/03/2017	34 pg	LOW NORMAL HIGH	Komlos, Me...	University Hospit...	
Iron + TIBC, Serum 07/03/2017 (3 items)								
		Iron, Serum	07/03/2017	39 ug/dL	LOW NORMAL HIGH	Komlos, Me...	University Hospit...	
		Total Iron Binding Ca...	07/03/2017	298 ug/dL	LOW NORMAL HIGH	Komlos, Me...	University Hospit...	
		% Saturation	07/03/2017	13 %	LOW NORMAL HIGH	Komlos, Me...	University Hospit...	

Perspective of the Busy Office/Private Practice Pediatrician

- Important Portal Features:
 - Messaging
 - Diagnostic Test Results
 - Educational Information (hyperlinks to trusted information from problem list items, labs, etc.)
 - Visit history/summaries

Portal Is Your Most Efficient & Accessible Staff

- After provider salary and vaccines, the most expensive cost in a healthcare office is staff time.
- Phone conversations are the least inefficient/most expensive use of staff time:
 - Can only handle one problem at a time
 - Can't be doing other things in the office
 - Must be available to answer when the phone rings
 - Frustrations for staff (phone won't stop ringing!) and families (waiting on hold)
 - Often cause churn/multiple handoffs or delay in "connecting to the right person"

Messaging: Wins & Barriers

- The Family Perspective
- The Specialist Perspective
- The Primary Care Perspective

Diagnostic Tests: Wins & Barriers

- The Family Perspective
- The Specialist Perspective
- The Primary Care Perspective

Educational Information: Wins & Barriers

- The Family Perspective
- The Specialist Perspective
- The Primary Care Perspective

Pre-Visit Work/Surveys

- Standing orders for patients prior to the visit
- When complete results come directly into EHR in box for practice review *prior* to visit (via XML in “survey inbox”)
- Can identify families with concerns and schedule extra time as appropriate and/or tailor visit to family priorities

Online Patient Services

Family | My Account | Patient Information | Appointments and Requests | Messages | Flu Clinic | Medical Home

Items Assigned to You

There are new messages for the following patient(s):
MICHAEL J TESTPATIENT



Date Created	Patient	Type	Name	
05/15/2018	MARY TESTPATIENT	Survey	Survey: BF 12-Month Developmental Surveillance	Take the survey
05/10/2018	MARY TESTPATIENT	Survey	Survey: ASQ3 10 month	Take the survey

PSC 35 Item	Web Portal User	01/26/2017	100	N/A		Informed					Any staff member
Lead Screening Risk Assessment	Patient	02/03/2016	305	0		Informed		ROUTINE INFANT/CHILD HEALTH CHECK	V20.2		Any staff member
SEEK Safe Environment for Every Kid	Web Portal User	11/13/2013	100	N/A		Informed	worried about depression				
Partner Violence Screen	Demo	11/13/2013	100	N/A		Informed					

Pediatric Symptom Checklist 35-item Parent Version

Submitted January 26, 2017 by Other for patient 99

Results

- ** (Fail) PSC-35 Overall Positive Screen (Cut score 24 for ages 4-5; 28 for ages 6-16); Score: 70
- ** (Fail) PSC-35 Internalizing Positive Screen (Cutoff >= 5); Score: 10
- ** (Fail) PSC-35 Externalizing Positive Screen (Cutoff >= 7); Score: 14
- ** (Fail) PSC-35 Attention Problems Positive Screen (Cutoff >= 7); Score: 10
- (Note) Respondent endorsed 'no' for child emotional/behavioral problems

Responses

Complains of aches or pains **Often**

Spends more time alone **Often**

Tires easily, has little energy **Often**



Forms/Family Notes/Immunizations on the Portal

Online Patient Services

Family My Account Patient Information

Options

- [Allergies](#)
- [Forms](#)
- [Growth Measurements](#)
- [Immunizations](#)
- [Labs](#)
- [Links and Handouts](#)
- [Prescriptions](#)
- [Patient Information](#)
- [Problem List](#)
- [Visit History](#)

Immunizations

Name	Date
Diphtheria/Tetanus	
DTaP	07/15/1998
DTaP	09/15/1998
DTaP	11/15/1998
DTaP	08/09/2006
HepA	
HepA	01/03/2005

SCHOOL/CAMP EXAM FORM - Confidential Information

Kressly Pediatrics, P.C. 1452 Easton Rd, Suite 4E Warrington, PA 15978

215-343-5520



PATIENT: **MARY TESTPATIENT** 99
 D.O.B. 5/16/1996
 SEX: F
 ADDRESS: 124 MAIN ST. DOYLESTOWN PA 18901
 PHONE: Home: 215-555-1212 Work: 267-261-1111
 PARENTS: SUSAN KRESSLY MOTHER 215-343-6223
 JOHN RYDER FATHER 123-456-7890
 SUSAN TESTPATIENT

HEALTH SUMMARY: MEDICATIONS, ALERTS and RECOMMENDATIONS:

Healthy patient with mild persistent asthma maintained on Flovent. Pt uses xopenex pr asthma flare.

ALLERGIES: No active medication allergies or reactions; No documented food/non-medication allergies

MOST RECENT: Visit: 10/25/2018		PEX Visit: 10/25/2018		Screening Tests:	
WEIGHT	112.0 lbs 5/6/2018 %	HEENT	NORMAL	ABD	NORMAL
HEIGHT	66.0 in 5/6/2018 %	EYES	NORMAL	HERNIA	NONE
B/P	135/78 10/8/2015	EARS	NORMAL	GEN/TAN	NORMAL
PULSE	110 1/25/2014	DENTAL	NORMAL	EXTREM FROM-Axons	
BMI	18.6 5/6/2018 %	HEART	NORMAL	SPINE	NORMAL
		LUNGS	NORMAL	SKIN	NORMAL
				HGB/HCT	14.0 PENDING 11/29/2017
				LEAD	SENT OUT 2/3/2016
				URINE SCREEN	NORMAL 7/27/2011
				VISION SCREEN	SEE NOTE 4/24/2015
				HEARING SCREEN	NORMAL 2/3/2016

Note:

IMMUNIZATIONS: Total number: 23 Age on Date Printed: 22 yrs. 7 mos.



CHP Patient Portal



Send a Message



New Message

[Back to inbox](#)

If this is an urgent or emergency medical matter, either dial 9-1-1 or go to the closest hospital emergency department.
Remember that your message will become a permanent part of your medical record. Do not include any information that you would not want to be part of your medical record.
Expect a response within 2 business days.
For questions regarding a bill, please type "Billing Team" in the "To" field below.

*Indicates a required field

This request is sent on behalf of

DONOTUSE

To *

Select a recipient

Subject *

Message *

Send Cancel

Consumers can view incoming and outgoing messages.

Consumers can select a provider by typing his/her name or clinical department in the "To" line.

Most messages are routed to *pools* within Cerner Inbox. Few messages go directly to a provider.

CHP Patient Portal



Request an Appointment



Request an Appointment

If this is an urgent or emergency medical matter, either dial 9-1-1 or go to the closest hospital emergency department.
 Complete the information below to request an appointment. We'll review your request and respond within 2 business days. For immediate assistance, call Children's Physician Referral Service at 412-662-7331.
 Please note, appointments are limited on Saturdays and not available on Sundays.

* Indicates a required field.

Send request to: *

When would you like to visit? *

First available

Select a date range

Start date: End date:

Enter date in MM/DD/YYYY format.

Which day do you prefer?

Sun Mon Tue Wed Thur Fri Sat

What is your preferred time?

Example: Afternoon or 2:00pm

Why is this appointment needed? *

How should we contact you to follow-up on this request? *

By secure message

By phone (please provide number)

Example: (555) 555-5555

[View Upcoming Appointments](#)

Request Appointment

Consumers can view upcoming appointments.

Consumers can request to schedule an appointment. Consumers do not have access to clinic schedules.

All requests are routed to pools within Cerner Inbox.



Test Results

Test Results are displayed in the portal 36 hours after they are finalized. Test results can be manually released.



Test Results

The information provided below is part of the electronic medical record. Most, but not all, test results are available in myCHP. For questions about your test results, please message your health care team.
 Note: Test results are released 36 hours after they are completed by the lab.

DONUTUSE CERNERTEST

Filter by date range

Start date: End date: Page Size:

Enter date in MM/DD/YYYY format.

MA TEG

100

Date: Dec 02, 2014 10:35 a.m. EST

Angle TEG

100

Date: Dec 02, 2014 10:36 a.m. EST

MA TEG

1

Date: Dec 02, 2014 10:12 a.m. EST

Consumers can click on the test result to see additional details and results history.

The following results will *not* be auto-released to the portal: HIV, Pregnancy, STDs, Hepatitis, Drug & Alcohol, Sweat Test, Special Chemistry, and Genetic Testing. Pathology and microbiology results are also excluded.



CHP Patient Portal



Renew a Prescription



- Health Profile
- Test Results
- Documents
- Medications**
- Visit Summaries

Prescription Renewal

The information provided below is part of the electronic medical record. If you believe any information is incorrect, please message your health care team.
 This service is intended for medications prescribed by your Children's Hospital providers only. Also, renewal requests through myCHP are for previously prescribed medications and are not intended for new medication requests. Check with your pharmacy to confirm that your prescription has been renewed. This transaction may take up to 2 business days.
 For urgent prescription renewals, please contact your health care provider.

DONOTUSE CERNERTEST

* Indicates a required field.
 Who do you want to send the renewal request to? *

Consumers can select a provider by typing his/her name or clinical department.

Which prescription(s) would you like to renew?

Influenza virus vaccine, inactivated
 Dose: 0.5 ml
 Frequency: ONE TIME ONLY
 Route: INTRAMUSCULAR

Consumers can either renew an existing prescription or add a new medication to renew.

Is your medication not listed? Add medication.

How should we contact you if we have questions? *

Consumers can have the prescription sent to a pharmacy or their home address.

By phone (please provide number)

Where should we send the prescriptions? *

All requests are routed to pools within Cerner Inbox.

Select

Additional comments

Send Cancel

Dashboard, quicklinks, send a message, request an appt, view health profile, test results, rad results, documents, visit summaries, meds, renew scripts, fill in questionnaires

Long-term Patterns of Patient Portal Use for Pediatric Patients at an Academic Medical Center

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Keywords

Patient portal, Patient engagement, Consumer health informatics, Pediatrics, Electronic health records and systems, Internet Portal

Summary

Background: Patient portal adoption has increased over the last two decades. Most research about patient portals has focused on adult populations in the primary care and medical specialty settings. **Objective:** We describe initial and long-term portal use by pediatric patients and their caregivers in a broadly deployed patient portal at an academic medical center.

Methods: We analyzed portal usage for pediatric patients and their caregivers from 2008 to 2014. We recorded usage events with time stamps; user role defined as self, surrogate (i.e., parent or guardian), or delegate; and functions accessed. Usage events were grouped into sessions to calculate descriptive statistics by patient age, user role, and active use over time.

Results: From 2008 to 2014, the number of portal accounts increased from 633 to 17,128. 15.9% of pediatric patients had their own account; 93.6%, a surrogate account; and 2.2% a delegate account. During the study period, 15,711 unique users initiated 493,753 sessions and accessed 1,491,237 functions. Most commonly used functions were secure messaging (accessed in 309,204 sessions; 62.6%); test results (174,239; 35.3%) and appointments (104,830; 21.2%). Function usage was greatest for patients ages 0-2 years (136,245 functions accessed; 23.1%) and 15-17 years (109,241; 18.5%). Surrogate users conducted 83.2% of logins for adolescent patients. Portal accounts were actively used for < 1 year for 9,551 patients (55.8%), 1-2 years for 2,826 patients (16.5%), 2-3 years for 1,968 patients (11.5%) and over 3 years for 2,783 patients (16.3%).

Conclusion: Pediatric patients and caregivers have avidly used messaging, test result, and appointment functions. The majority of access was done by surrogates. Adolescent portal usage increased with age. Most accounts for pediatric patients were only used actively for a few years, with peak usage for patients in early childhood and late adolescence.



Literature Review

JOURNAL OF SURGICAL RESEARCH • FEBRUARY 2019 (234) 231–239



ELSEVIER

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.JournalofSurgicalResearch.com



Association for Academic Surgery

Care Delivered by Pediatric Surgical Specialties Through Patient Portal Messaging



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#HIMSS19

Pushing the Envelope

- Pre-visit work to streamline the visit
- Forms available on the portal
- Immunizations (great for school/camp registration!)
- Pay your bill
- Self-schedule an appointment
- Register yourself as a new patient
- Self-scheduling flu clinics



Next on the Horizon - OpenNotes

- See full care team chart notes
- Gives holistic view, perspective
- Helps patient & family review information in their own time
- Reinforce details hard to remember after the visit
- Helps clarify questions, make sure on same page
- Enhances patient safety
- Patients have federal right to chart
- OpenNotes.org as resource



If We Could Solve ONE Problem Today...

1. Solve interoperability so patients and providers can access medical records across health systems, practices, and portals.
2. National patient ID.
3. Consumer-friendly functions such as bill-pay and appointment scheduling made available on every portal. Bill pay would include an itemized, easy-to-understand breakdown of charges and co-pays.



Thank You Q & A

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