Implementing a Secure Patient Portal at a Pediatric Hospital

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Pediatrician and CMIO

Canada Health Infoway
Inforoute Santé du Canada

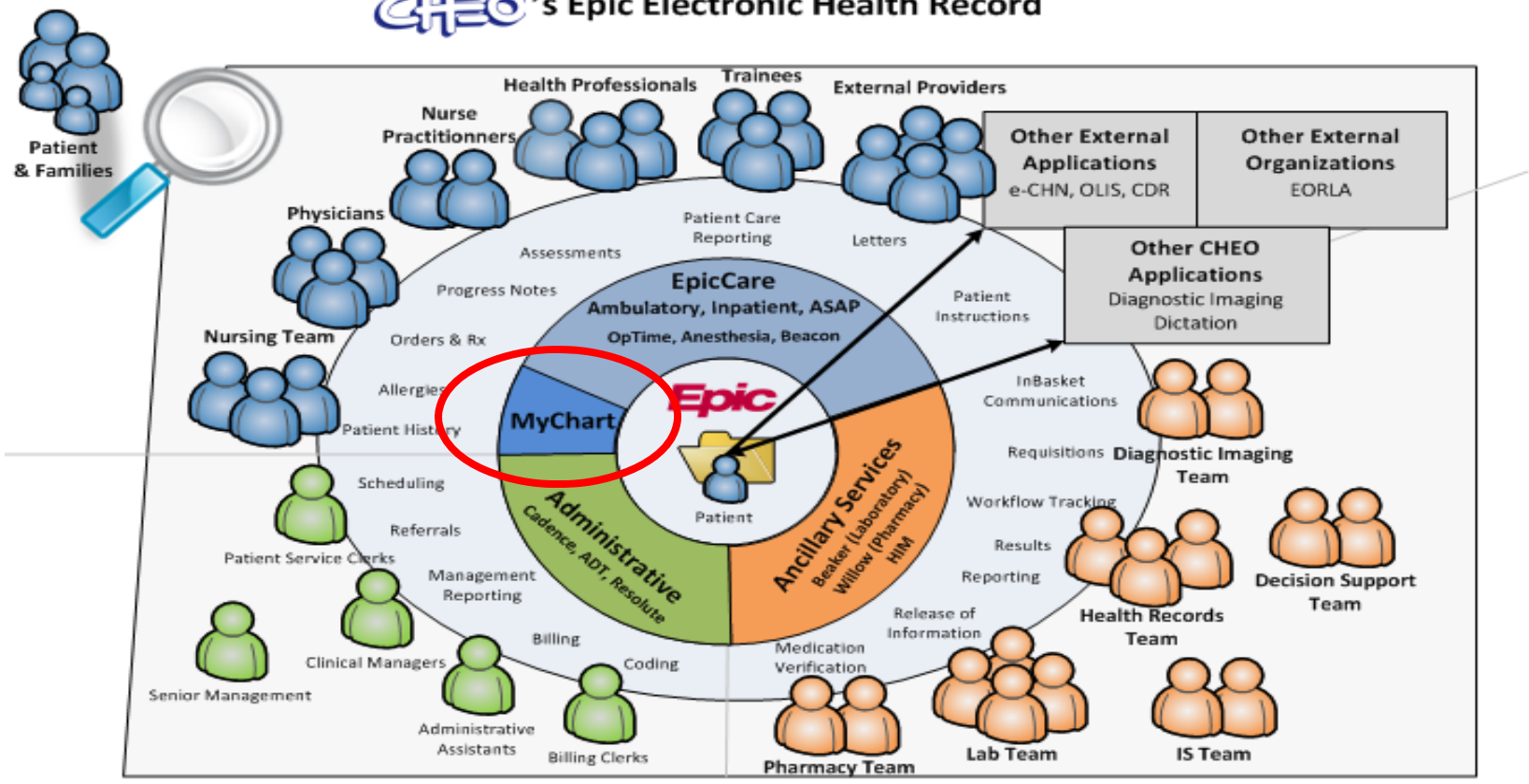
Objectives

1. Overview of patient health portal: CHEO MyChart
2. Discuss MyChart implementation approach
3. Present initial results of MyChart access & lessons learned

No Conflict of Interest to declare

Children's Hospital of Eastern Ontario

- 167 bed tertiary care hospital
- Referral Base: ~ 2 million
  - *194,000 outpatient visits to 63 specialty clinics*
  - *Regional trauma center and Level III NICU*
  - *Pediatric Care to Eastern Nunuvat*
- Enterprise Epic implementation
  - *EpicCare Ambulatory*
  - *Epic lab: Beaker*
  - *Patient Access and Revenue Cycle*
  - *Patient Health Portal*


CHEO's Epic Electronic Health Record
Patient & Families
Health Professionals
Trainees
External Providers
Nurse Practitionners
Physicians
Nursing Team
Other External Applications
e-CHN, OLIS, CDR
Other External Organizations
EORLA
Other CHEO Applications
Diagnostic Imaging
Dictation
Patient Care Reporting
Assessments
Letters
Progress Notes
Patient Instructions
EpicCare
Ambulatory, Inpatient, ASAP
OpTime, Anesthesia, Beacon
Orders & Rx
Allergies
Patient History
MyChart
Epic
Patient
InBasket Communications
Requisitions
Diagnostic Imaging Team
Scheduling
Referrals
Patient Service Clerks
Administrative
Cadence, ADT, Resolute
Ancillary Services
Beaker (Laboratory)
Willow (Pharmacy)
HIM
Workflow Tracking
Results Reporting
Decision Support Team
Management Reporting
Clinical Managers
Billing
Coding
Release of Information
Health Records Team
Medication Verification
Senior Management
Administrative Assistants
Billing Clerks
Pharmacy Team
Lab Team
IS Team

Benefits are being Realized

134 pt/proxy accessed their record through MyChart

Patients

BedBoard supporting patient flow

65,559 medication orders

~ 1-2% rapid change/mo

Providers

1,059 unique users/mo accessed 331,180 records

> 1 million procedure orders (e.g. lab, DI)

~ 1-2% duplicates/mo

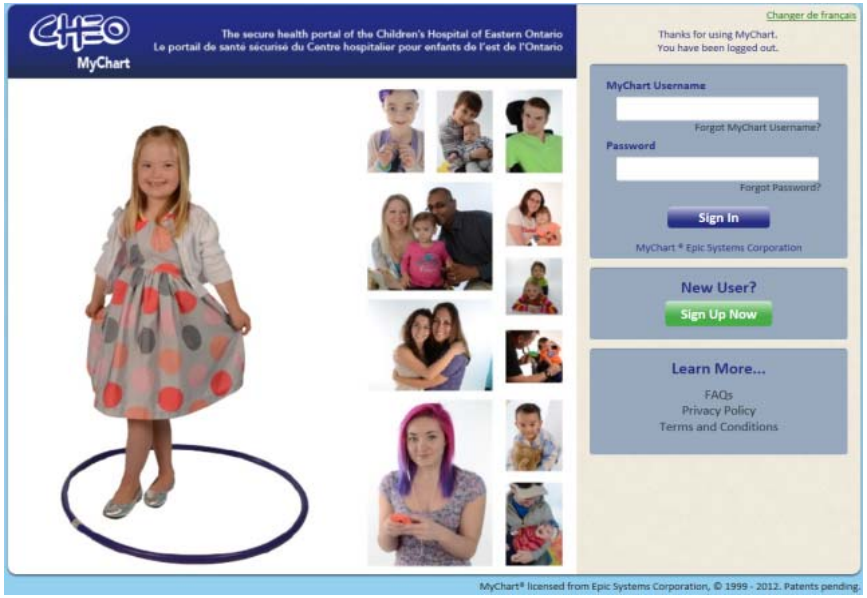
System

> 1 million less lines of transcription in 2014

Up to date as of Apr, 2015

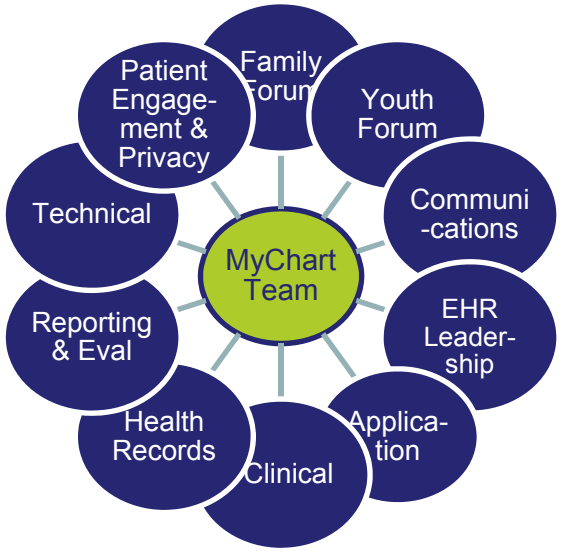
MyChart @ CHEO

- Tethered PHR
  - *Patients & designated proxy*
- Features live today:
  - *Future & past visit information*
    - Reminders and After visit summary
  - *Health information including:*
    - Test Results (lab, imaging)
    - Allergies, Medications, Health Issues
    - Updates to health information by patient/proxies
  - *Growth Charts*
  - *Secure two-way messaging*



MyChart Implementation

- Consumer & Clinician Engagement
  - *Canada Health Infoway Change Management Framework*



MyChart Implementation

- Consumer & Clinician Engagement
- Results Release

Type of Result	**Automatic release**
Lab: Normal	Next day
Lab: Abnormal	10 business days; not released Fri-Sun
Medical Imaging	10 business days; not released Fri-Sun
Pathology & Cytology	10 business days; not released Fri-Sun

Not released

Sensitive Labs, Genetics

e.g. HIV, pregnancy test

Inpatient or ED Results

Specialty Procedures

e.g. Audiology, Neurophysiology, Respirology

MyChart Implementation

- Consumer & Clinician Engagement
- Results Release
- Privacy Decisions
  - *Privacy Impact Assessment*
  - *Access Request Form*
  - *Unique Identifying Information for Activation*
    - Activation code, Date of Birth. Medical Record Number (MRN)

MyChart Implementation

- Consumer & Clinician Engagement
- Results Release
- Privacy Decisions
- Activation Process
  - *Organizational workflow discussion*
  - *Processes to consider:*

Deactivation

- Inappropriate Use
- Request for Deactivation by Patient
- Legal Update

Transition ages

- Pediatrics
- 12, 16, 19

MyChart @ CHEO

Usage Results: Where are we now

Pilot in Diabetes Clinic:

- 134 users; 980 logins

Usage

- Page views: 5,633
  - 71 per user
- Lab tests (view list): 618
  - Result graphing: 107
- Appointments (view list): 339
- Medications: 293
- Growth Chart: 261

Feature	Hits
Proxy Access (View)	685
Lab Tests - View List	618
Messaging	443
Enter or Exit Proxy Page - Delegate	363
Lab Test - View Results	341
Future or Past Appointments - View List	339

MyChart @ CHEO

Pilot Feedback

- Pilot of System and Use Survey (eViews)
- 14 respondents
- Complete Survey in July

Computer Skills	• 92% have general or advanced skills
Gender	• 69% female; 23% males; 8% missing value
Age	• 77% between 35 to 49 years
Participant Type	• 11 proxies; 1 patient; 1 unknown

MyChart @ CHEO

Pilot Feedback: User Friendliness

- 85% of end users *strongly or moderately* agreed the registration process was easy.
- 92% *strongly or moderately agreed* the portal is easy to use.
- 92% *strongly or moderately* agreed they feel confident their personal information is secure and private.
- 16% *strongly or moderately disagree that results were received in a timely fashion.*

MyChart @ CHEO

Pilot Feedback: Access to Resources

In the past 12 months, end users have made telephone calls to the healthcare provider:

- Over 5 times (23%)
- 1-5 times (38%)
- None (31%)

15% *avoided* a phone call because of the access to health information electronically (38% not applicable).

69% *strongly or moderately* agreed that the portal makes it more convenient to get care or services.

MyChart @ CHEO

Pilot Feedback: Accuracy of Health Information

23% reported the medication information to *not be accurate*.

Medication on the list that is no longer used

Medication missing from the list

MyChart @ CHEO

Pilot Feedback: Recommending to Family or Friends

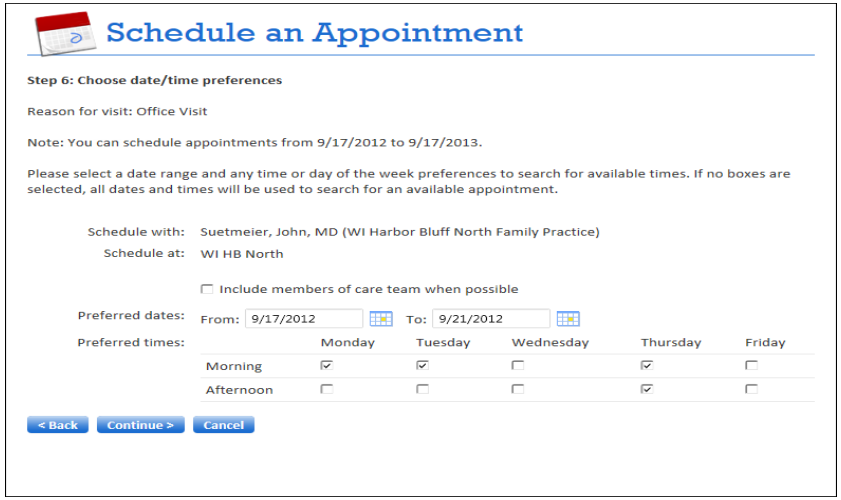
77% of users would recommend MyChart to family or friends as a tool to support their health care

Lessons Learned

- Technology piece – no problem
- Focus on organizational and process pieces
  - *Good change management framework*
  - *Stakeholder involvement*
- Pilot approach
- Operational ownership
  - *Patient engagement vs Business strategy*

MyChart @ CHEO: Long Term

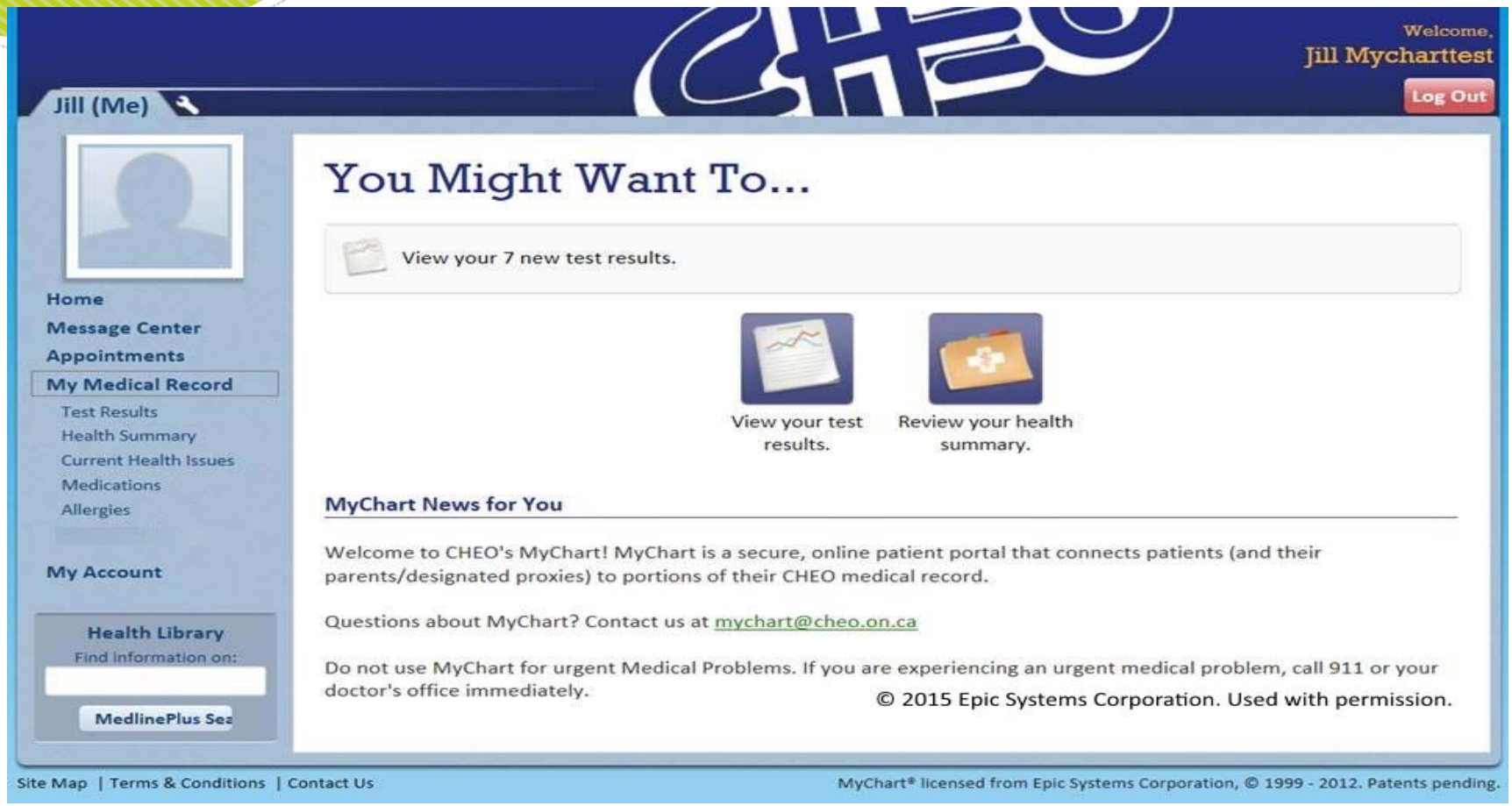
- Appointment requests & Self-scheduling
- Sharing notes with patients & families
- Patient questionnaires
  - Clinical & Research
- Video e-visit



MyChart @ CHEO: Long Term

Population health & Disease management

Apple Health App sync with MyChart mobile app


Welcome,
Jill Mycharttest
Log Out
Jill (Me)
You Might Want To...
View your 7 new test results.
Home
Message Center
Appointments
My Medical Record
Test Results
Health Summary
Current Health Issues
Medications
Allergies
My Account
Health Library
Find information on:
MedlinePlus Sea
View your test results.
Review your health summary.
MyChart News for You
Welcome to CHEO's MyChart! MyChart is a secure, online patient portal that connects patients (and their parents/designated proxies) to portions of their CHEO medical record.
Questions about MyChart? Contact us at mychart@cheo.on.ca
Do not use MyChart for urgent Medical Problems. If you are experiencing an urgent medical problem, call 911 or your doctor's office immediately.
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AST - Details

About This Test

Details | Past Results | Graph of Past Results

Comments from the Doctor's Office

We will discuss these results at your next visit.

Component Results

Component	Standard Range	Your Value
AST	*8-45 U/L*	**42**

General Information

Collected:	30/01/2015 8:22 AM
Resulted:	30/01/2015 8:23 AM
Ordered By:	CHEO Physician Pediatrics, MD
Result Status:	Final result

Back to the Test Results List

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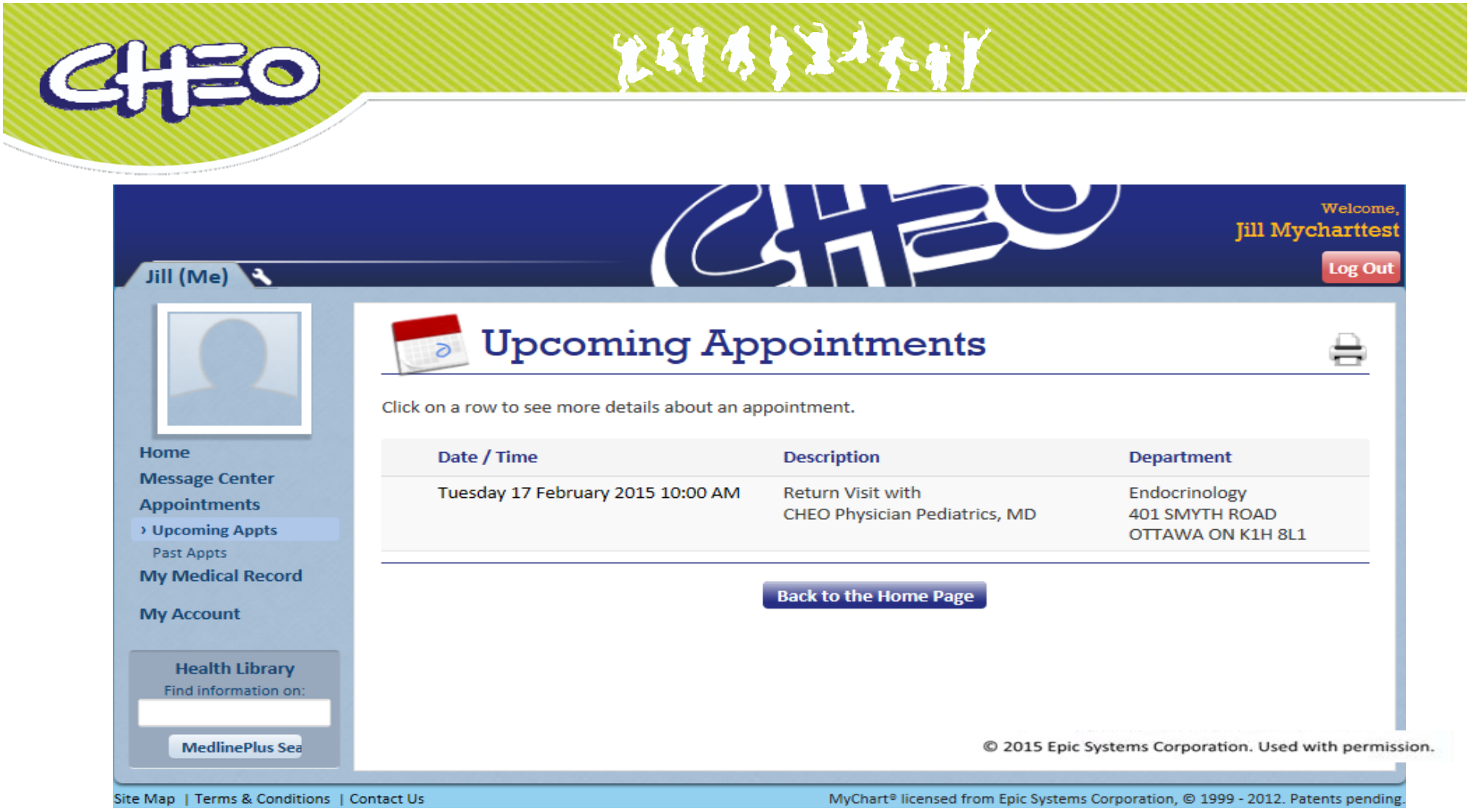
Welcome,
Jill Mycharttest
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Jill (Me)
Home
Message Center
Appointments
› Upcoming Appts
Past Appts
My Medical Record
My Account
Health Library
Find information on:
MedlinePlus Sea
Upcoming Appointments
Click on a row to see more details about an appointment.
Date / Time
Description
Department
Tuesday 17 February 2015 10:00 AM
Return Visit with
CHEO Physician Pediatrics, MD
Endocrinology
401 SMYTH ROAD
OTTAWA ON K1H 8L1
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Past Appts
My Medical Record
My Account
Health Library
Find information on:
MedlinePlus Sea
Appointment Details
Printed on 3/2/2015 9:40 PM
Page of
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28/1/2015 2:30 PM Office Visit
Provider:Cheopediatrics, Physician, MD
Department:Endocrinology
Dept Phone:613-737-7600 x3719
Instructions
Reminder List - Using CGM
During Saline Week
1. Do practice boluses at meals and bedtime snack
2. Do a reservoir and set change every 3 days
3. Do an upload to website (Carelink/Diasend)and bring in a printed test page
4. Prepare DKA Prevention Kit
5. Obtain items at pharmacy if required
6. Calibrate sensor 3 times a day, before breakfast, before supper and before bed
7. On day 6: Recharge the transmitter and change the sensor
8. Do a complete food diary with all food weighed and liquids measured
What to Bring to Pump Start Appointment
*Remember to not take NPH in a.m of Pump Start/ Decrease Levimer by half night before pump Start
1. Lunch with exact amount of CHO
2. Food diary with all foods weighed (liquids can be measured)
3. DKA Prevention Kit that you have prepared
4. Bring insulin in vial, and ketone test strips
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Current Health Issues

Click on the issue name for more in-depth information on that particular issue.

Health Issue	Date Noted
Diabetes mellitus type 1	30/01/2015
Hypothyroidism	30/01/2015
Asthma	30/01/2015

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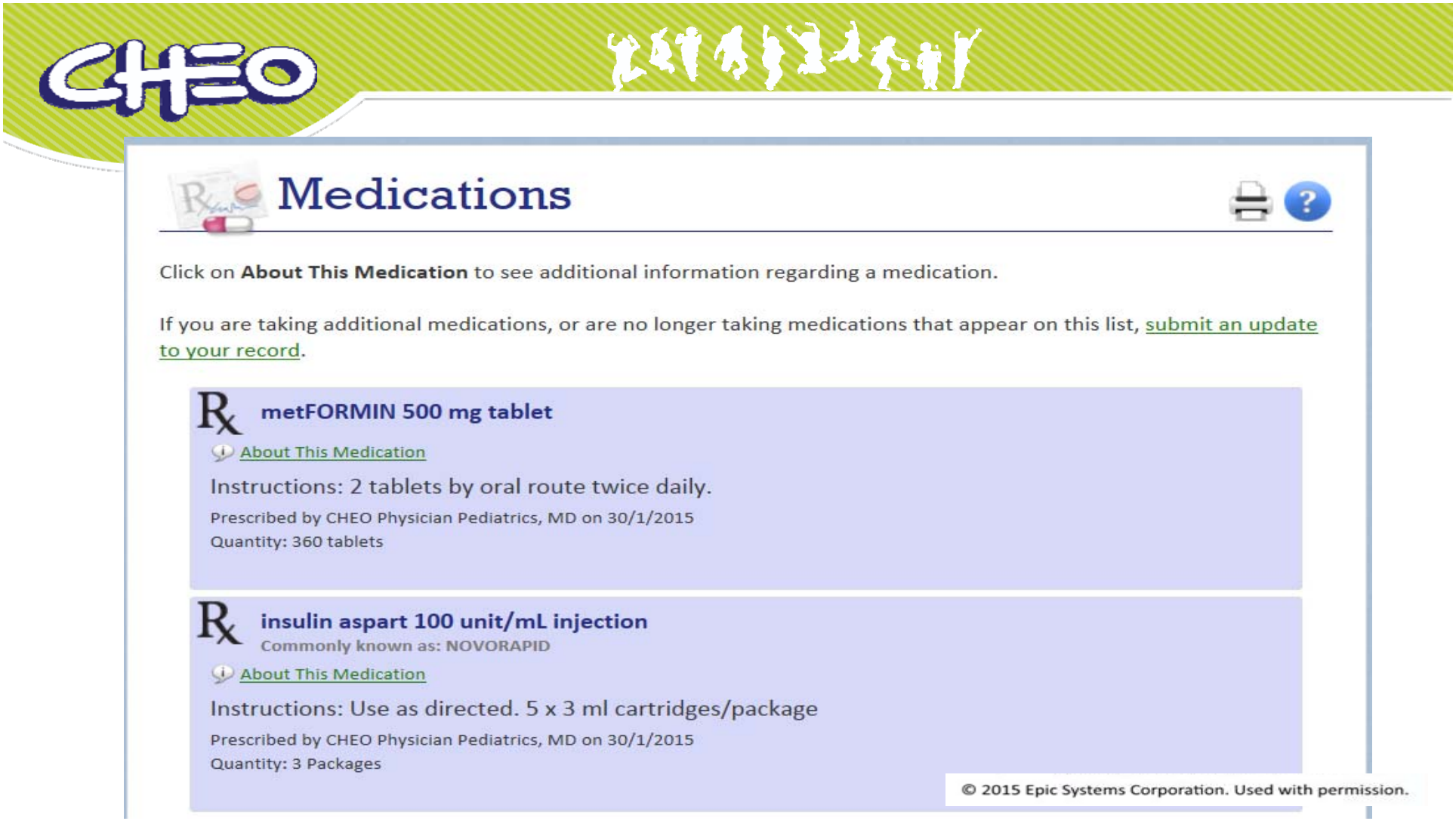

Medications

Click on **About This Medication** to see additional information regarding a medication.

If you are taking additional medications, or are no longer taking medications that appear on this list, submit an update to your record.

metFORMIN 500 mg tablet

About This Medication

Instructions: 2 tablets by oral route twice daily.

Prescribed by CHEO Physician Pediatrics, MD on 30/1/2015

Quantity: 360 tablets

insulin aspart 100 unit/mL injection

Commonly known as: NOVORAPID

About This Medication

Instructions: Use as directed. 5 x 3 ml cartridges/package

Prescribed by CHEO Physician Pediatrics, MD on 30/1/2015

Quantity: 3 Packages

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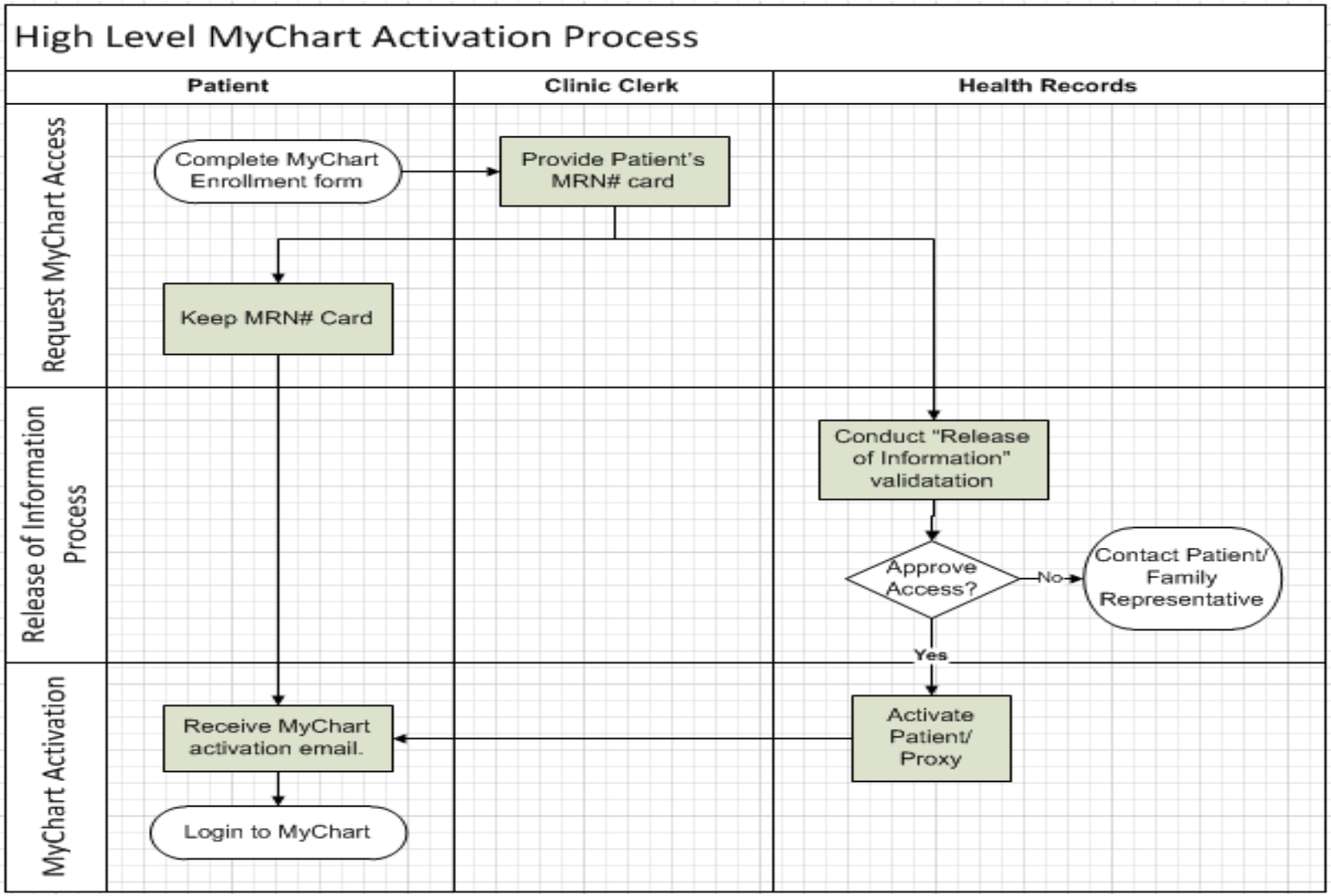
High Level MyChart Activation Process
Patient
Clinic Clerk
Health Records
Request MyChart Access
Release of Information Process
MyChart Activation
Complete MyChart Enrollment form
Provide Patient's MRN# card
Keep MRN# Card
Conduct "Release of Information" validatation
Approve Access?
No
Contact Patient/ Family Representative
Yes
Activate Patient/ Proxy
Receive MyChart activation email.
Login to MyChart