

SMART on FHIR Use Cases: cPRO and TrueNTH

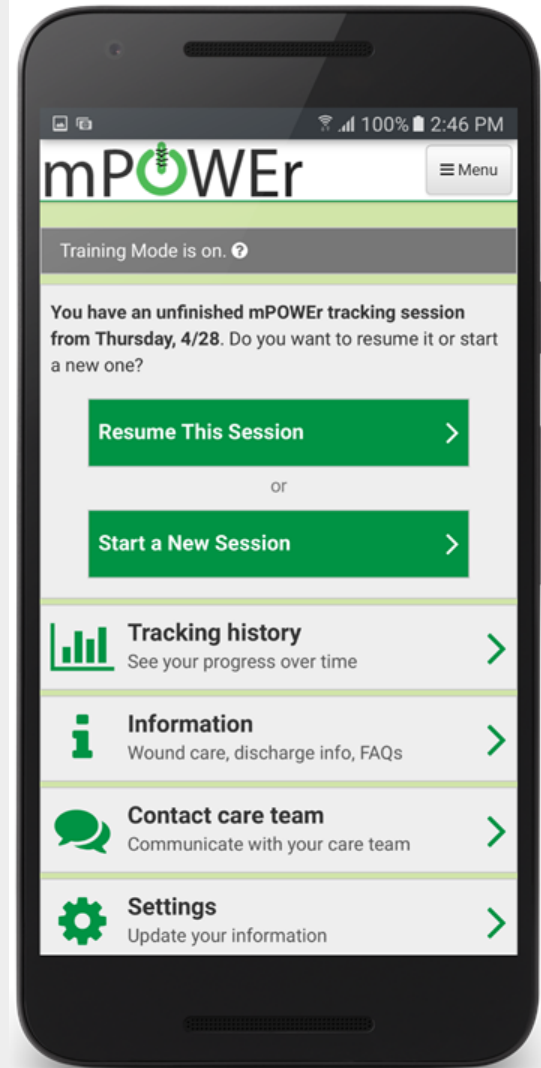
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Clinical Informatics Research Group
University of Washington

cPRO

(computerized)

Patient Reported Outcomes

<http://cprohealth.org>



What gender best describes you?

? What's this?



Male



Female



Male-to-Female Transgender/Transgender Woman



Female-to-Male Transgender/Transgender Man



A gender not listed above

◀ Previous



Next ▶

Change language:

English

Español

SUMMARY

URINARY
PROBLEMSSEXUAL
CONCERNSBOWEL
PROBLEMSTIRED, WEAK AND
HOT FLASHESEMOTIONAL AND
MENTAL HEALTHREPORT FOR
YOUR DOCTORS

Compare yourself to men aged

ALL AGES ▾

PRINT

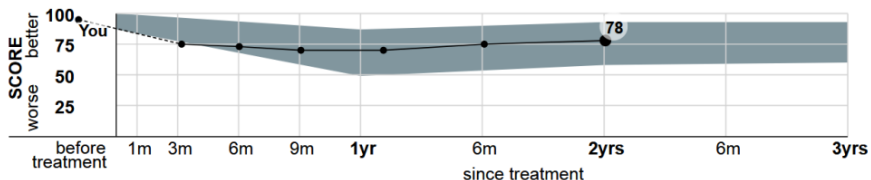
who have had

RADICAL PROSTATECTOMY (NON-NERVE-SPARING) ▾

Urinary Problems

Understanding the graphs

READ MORE

Your Urinary Problems
score:**78/100**

on year 2

You reported that this
is a **small problem**.

The Radical prostatectomy (non-nerve-sparing) journey

The graphs above show how symptoms change over time in the prostate cancer journey.

Your symptoms are the black dots on the charts. If your dot is within the blue-grey line, then your symptoms are similar to other men you are being compared to.


Summary of your responses


In your responses, you reported:

- Overall, problems with urinating are a small problem for you.
- More than once per week leakage.

Patient use of
PRO data in the
context of self
management

Interventions such as patient decision aids, and coaching for communication with providers


[Welcome, mcjustin+180214A@uw.edu mcjustin+180214A@uw.edu](#)



A NOVEMBER INITIATIVE

[P3P HOME](#)
[MY TOP CONCERNS](#)
[STATISTICS](#)
[MY DECISION ROLE](#)
[REPORT FOR MY DOCTOR](#)
[MORE ABOUT PROSTATE CANCER](#)
[WHAT DO YOU THINK?](#)
[ABOUT P3P](#)

Click to see other topics:

Outcomes

☒ Years I Expect to Live

☐ Bladder Function

☐ Sexual Function

☐ Bowel Function

Lifestyle

☐ Work or Occupation Activities

☐ Recreational Activities

People

☐ Spouse/Partner

☐ Co-worker

☐ Friend

☐ Family Member

Current Symptoms

☐ Sexual

☐ Bladder


☐ Bowel

My Top Concerns

Based on your answers, we have put the things that are most important to you right here. They are in groups that you will see in the list on the left. Read them at your own pace. You can stop and come back whenever you want. The first time you go through the topics, you need to go in order from top to bottom in the list of links on the left.

Years I Expect to Live

Based on your answers, how long you expect to live (this is also called survival) is important to you as you decide on your prostate cancer care. You should think about how long you expect to live based on your general health, not just your recent [diagnosis](#) of prostate cancer.



Age and other things that affect survival

Many men with [localized prostate cancer](#) will live at least 10 years after their diagnosis. However, some men will die sooner for another reason, like advanced age, accidents, or other illnesses (for example, diabetes or heart disease). Unhealthy behaviors like tobacco use can also affect survival.

Interventions such as patient decision aids, and coaching for communication with providers

Click to see other topics:
Outcomes
<input checked="" type="checkbox"/> Years I Expect to Live
<input type="checkbox"/> Bladder Function
<input type="checkbox"/> Sexual Function
<input type="checkbox"/> Bowel Function
Lifestyle
<input type="checkbox"/> Work or Occupation Activities
<input type="checkbox"/> Recreational Activities
People
<input type="checkbox"/> Spouse/Partner
<input type="checkbox"/> Co-worker
<input type="checkbox"/> Friend
<input type="checkbox"/> Family Member
Current Symptoms
<input type="checkbox"/> Sexual
<input type="checkbox"/> Bladder
<input type="checkbox"/> Bowel

Age and other things that affect survival

Many men with [localized prostate cancer](#) will live at least 10 years after their diagnosis. However, some men will die sooner for another reason, like advanced age, accidents, or other illnesses (for example, diabetes or heart disease). Unhealthy behaviors like tobacco use can also affect survival. There are certain tools, such as life tables, which list how long on average people will live based on their gender, race, and age. Your doctor may refer to such a table when he or she talks to you.

In general, prostate cancer is a slow-growing cancer. For men with a **low risk** of cancer spreading or returning, there is no proof that any one kind of care will help them live longer than another kind of care. In fact, for some men with **very low risk** cancer, treatment may cause more harm than good. For men with a **medium to high risk** (faster growing) cancer, studies show that removing or treating the cancer is better than not having treatment.

The most important thing that predicts the [risk](#) of your cancer growing or spreading is the [Gleason score](#). There is good research that this score will predict the chance that a man's cancer will spread and how many years he will live. Your doctor will talk to you about your Gleason Score and risk of your cancer spreading or returning.

TALK TO YOUR DOCTOR

Talk to your doctor about your age and how long you expect to live. For example, you might say:

"I feel like a young man at ... (say your age) and like I've got many years to go. What does this have to do with my decision about prostate cancer care?"

Or you might say:

"I've had a full life, and now I am ... (say your age) (OR say) I've had a full life, and I have ... (say another disease or illness you have). I'm not sure I'm going to live many more years. Help me understand how this fits in my decision about prostate cancer care."

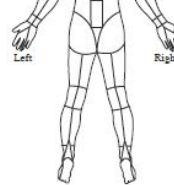
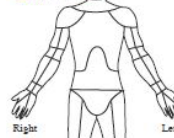
NEXT TOPIC: **BLADDER FUNCTION** >

OR

SKIP AHEAD TO **LIFESTYLE** >>

Clinician use of PRO data, contextualized to the domain

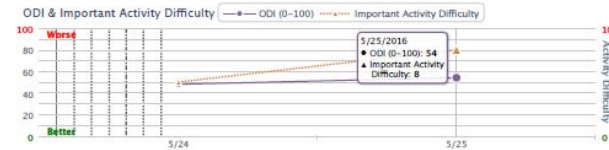
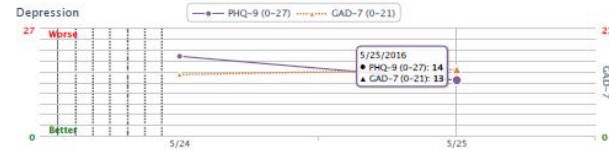
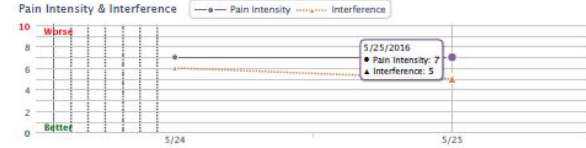
ORT Score	7 (0-26)
AUDIT-C	7 (0-12) ▲
PHQ-9	14 (0-27) ▲
SI	2 (0-3) ▲
GAD-7	13 (0-21) ▲
PTSD	2 (0-4)
STOP	1 (0-4)
FM	11 (0-31) 📄
Opioids	
Problems	N/A
Concerns	N/A
Helpfulness	N/A
Taper	N/A



Printed: 5/26/2016
Last Completed Session: 5/25/2016 2:41pm



Patient-reported Recent Treatments				Treatment Goals and Expectations	
Type	Last 3 Dates	Total	Rank	Goals (9/26/16)	Expectations (9/26/16)
Injection	5/24/16, 5/23/16, 5/23/16...	5	1st	A diagnosis	Consultation only
Started Phys. Therapy	5/23/16	1	2nd	Help in coping with the pain	Counseling
Started Psych. Therapy	5/9/16	1	3rd	Help getting back to important activities	Stress Management



PT.NO: five
FIVE, FIVE
DOB: 1955-01-01 SEX: F


UW Medicine
Harborview Medical Center -- Northwest Hospital & Medical Center
Valley Medical Center -- UW Medical Center
University of Washington Physicians -- Seattle, Washington
PainTracker
Page 1 of 2



UH0803 REV JULY 14

WHITE - MEDICAL RECORD

Provider-
customizable
content, to
minimize impacts
on workflow

FENWAY  HEALTH

MRN: jm043016AName: John DoeDate of Birth: 1950-01-01

Questionnaire Selection

Below is a list of questionnaires available for this patient. The "Questionnaires to Administer" list on the right shows what the patient is set to receive. You can add or remove questionnaires by dragging to and from the "Available Questionnaires" list on the left.

High Priority

Med Priority

Low Priority

Total time: 4:35

Available Questionnaires

AUDIT-C Alcohol Screen (0:46)

DAST-10 Drug Screen (0:46)

Generalized Anxiety Disorder-7 (0:40)

IPV (0:30)

Fall Risk Assessment (0:15)

Questionnaires to Administer

Learning Needs Assessment (LNA) (2:29)

Smoking and Tobacco (1:00)

PHQ-9 Depression (0:51)

Reset Questionnaires to Administer List

Start New Survey Session

Back

Survey Interface

cPRO & SMART on FHIR

EHR Integration

App / website launch &
user authentication from:

- EMR (providers)
- Tethered Patient
Portals (patients)

Reading data from the
EHR (and to a lesser
extent, writing to it)

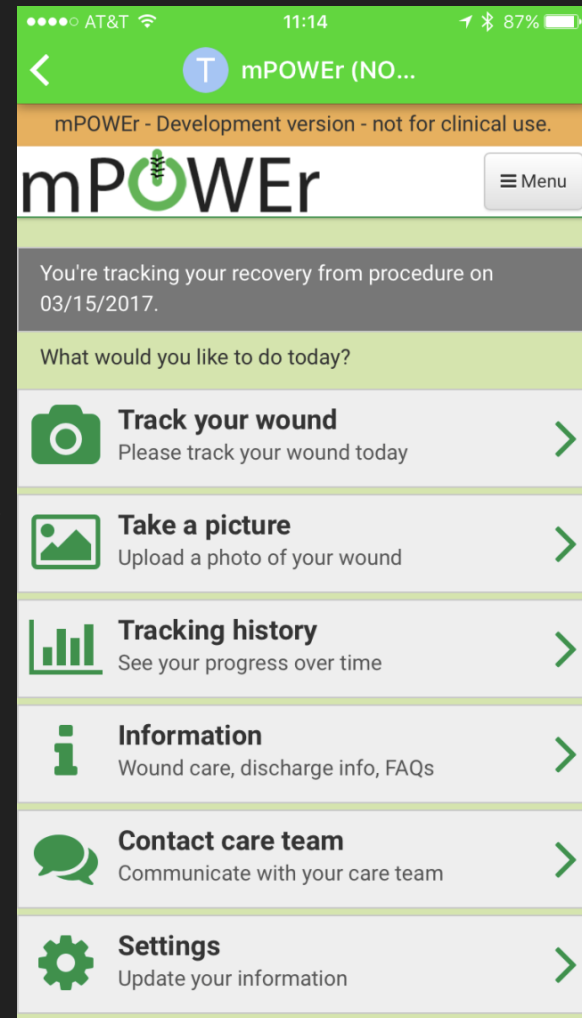
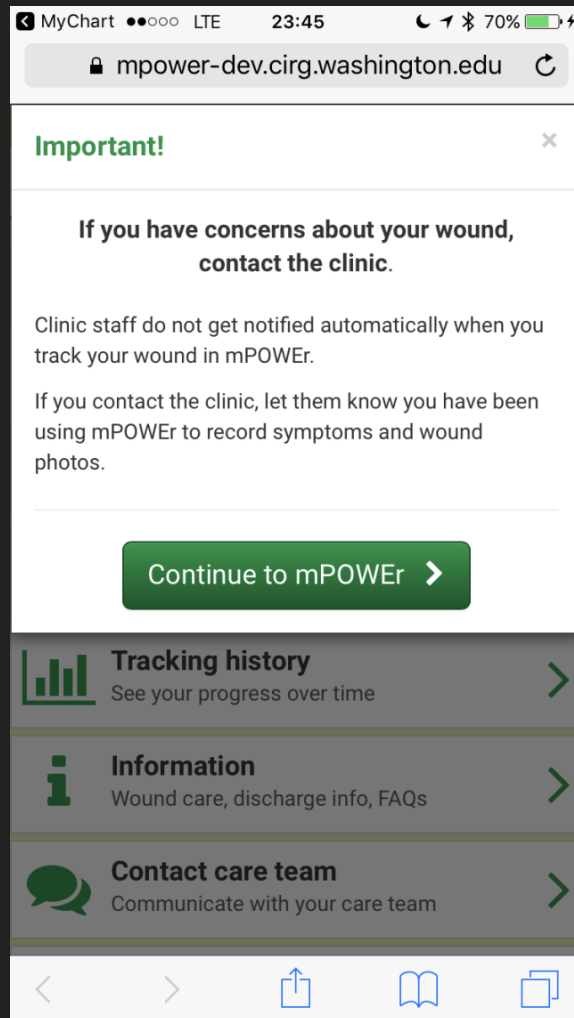
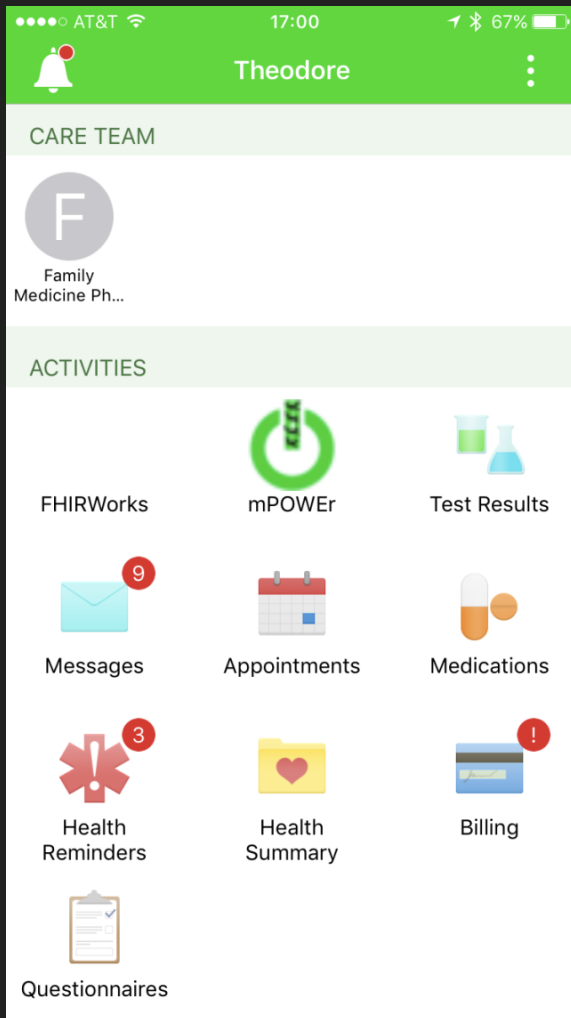
cPRO & SMART on FHIR

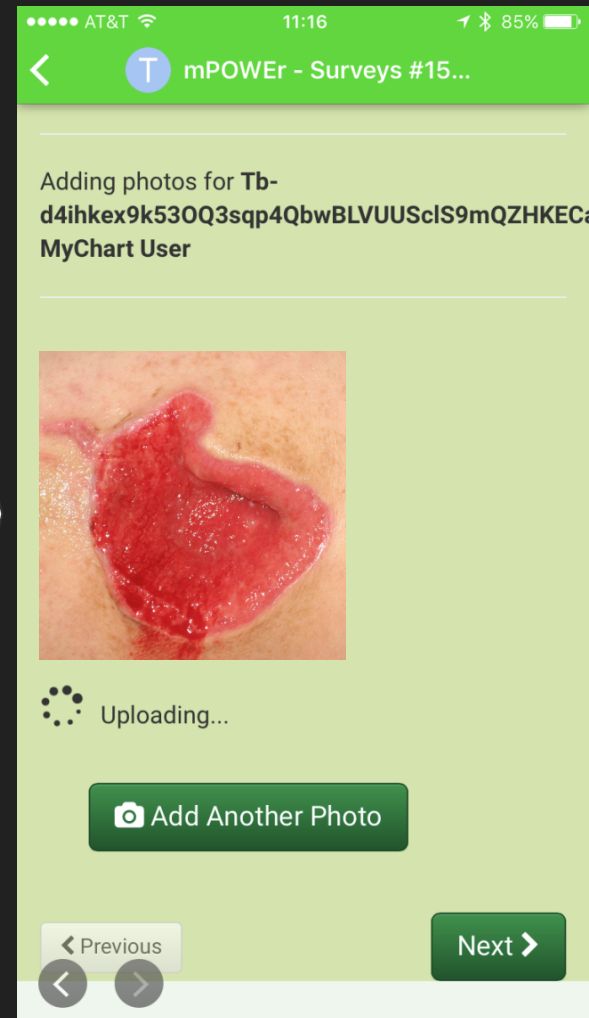
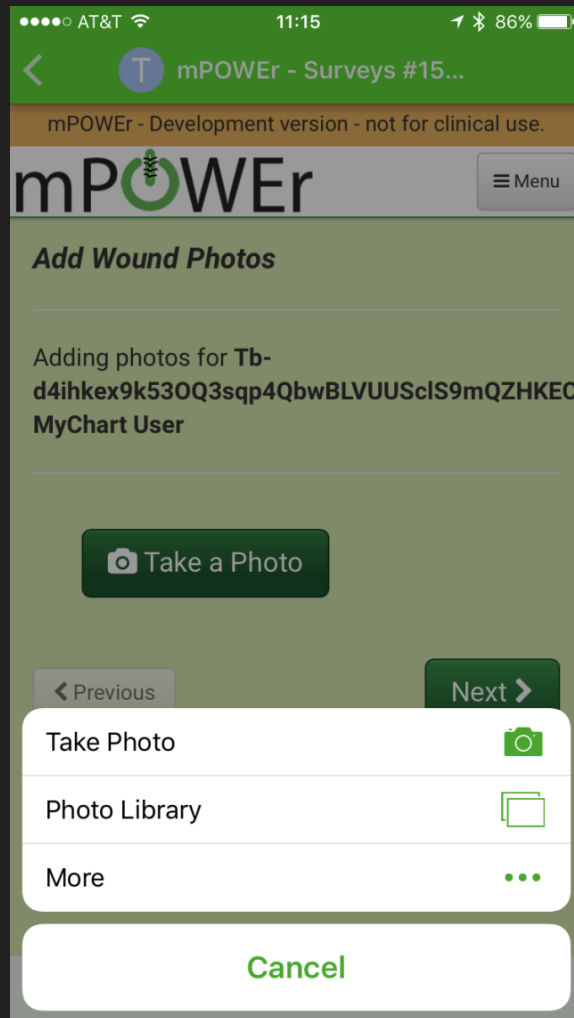
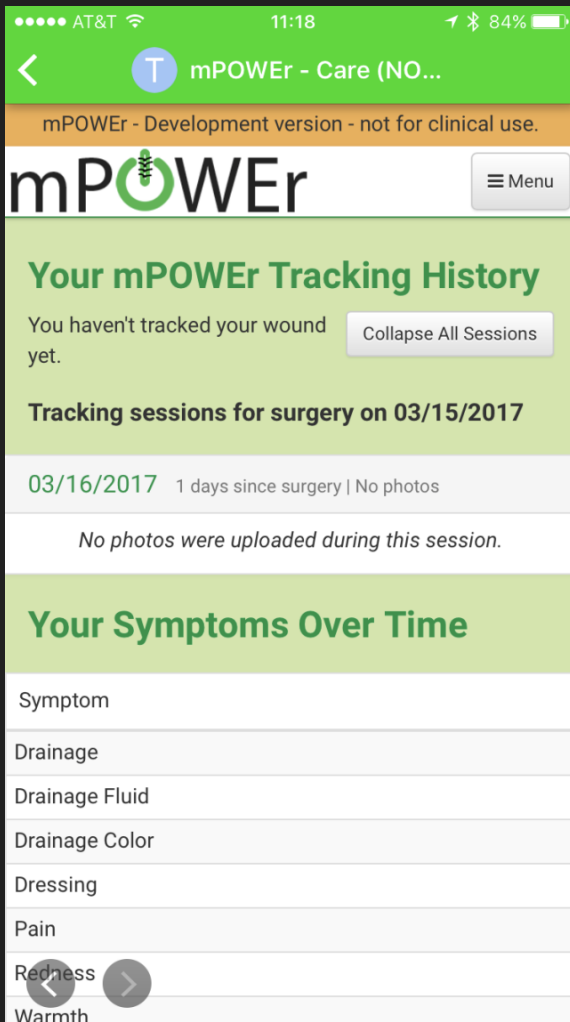
Epic FHIRWorks 2017 &
2018

Integrations with Epic
applications:

Hyperspace EMR

MyChart Patient Portal





mPOWER

Edit

Teams/Clinics:

(Graphic wound photos) John Smith

MRN: 9999999 | Male | DOB: 11/23/1974, 42

Recent Procedure

Trauma wound washout Surgeon: Evans
Procedure date: 07/13/2017 | POD: 15 days
Discharge date: 07/13/2017 | Post D/C: 15 days

Photo & Session Count

Photos uploaded by staff: 0
Photos uploaded by patient: 5
Symptom reports by patient: 5

Patient Drains

This patient isn't tracking any drains.

📷 Add New Photo(s)

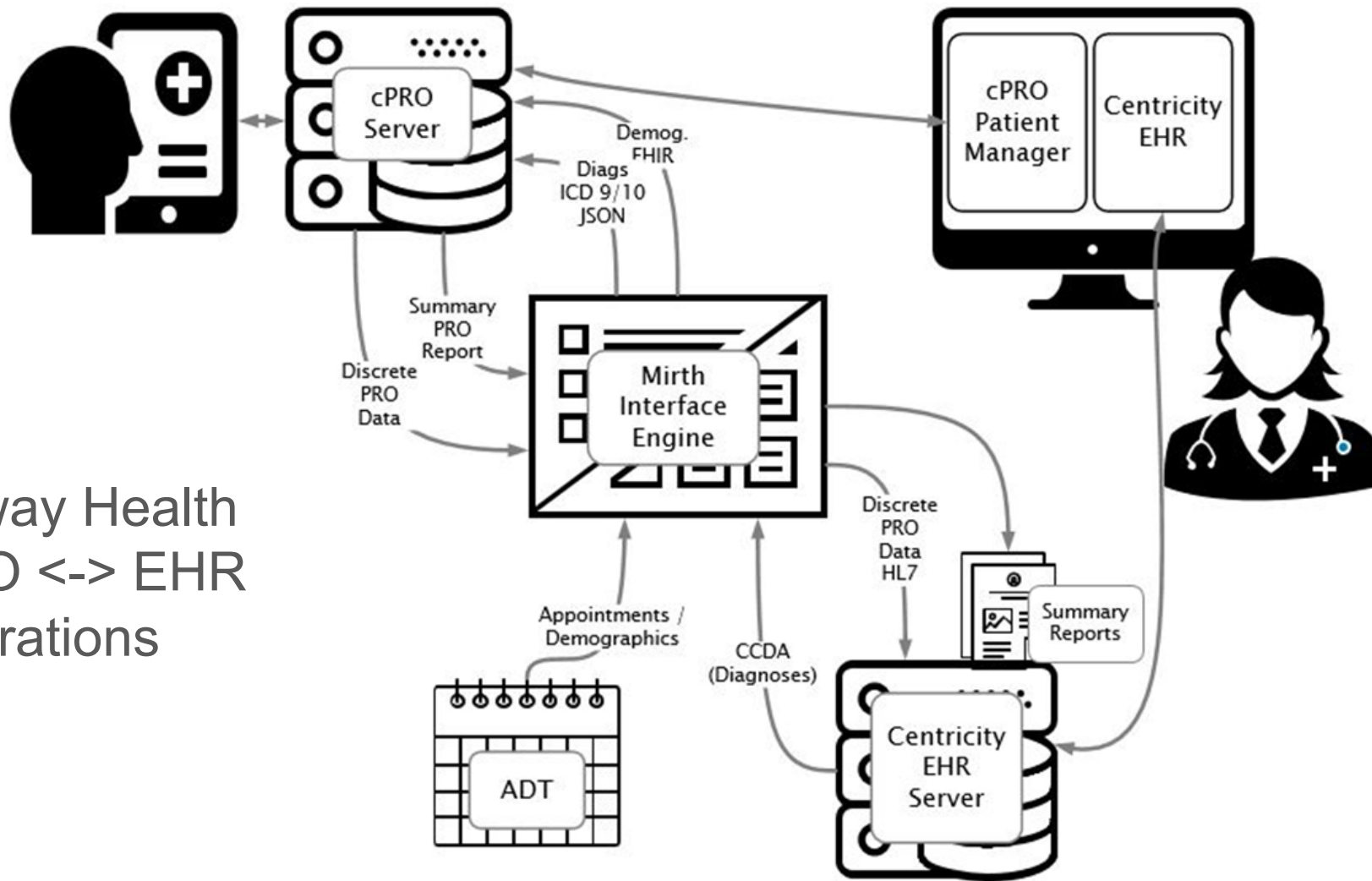
Expand All Sessions

Taken: 7/31/2017 8:10pm POD: 18 | Uploaded: 7/26/2017 by patient



cPRO
(mPOWER)
within the
EMR (Epic
Hyperspace)

Fenway Health cPRO <-> EHR Integrations



TrueNTH

A patient-centered portal for
men with prostate cancer

≡ MENU

TRUENTH
A NOVEMBER INITIATIVE

LOG IN

JOIN US

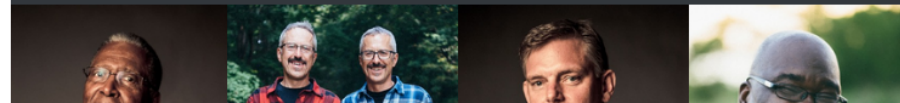
TrueNTH is a collective approach to improving your quality of life throughout your prostate cancer journey.



OBJECTIVE N°1: TRUENTH COMMUNITY

We are here to help you navigate your prostate cancer journey.

MORE ABOUT TRUENTH →



TrueNTH Apps

DECISION SUPPORT

Explore your values, your preferences, and the current medical knowledge to help you discuss your treatment options with your doctors.

GO TO DECISION SUPPORT →

SYMPTOM TRACKER

Compare your symptoms over time with men like you, and manage symptoms that bother you.

GO TO SYMPTOM TRACKER →

EXERCISE AND DIET

To provide men and the people in their lives with the tools and support they need to optimize their health through exercise and diet.

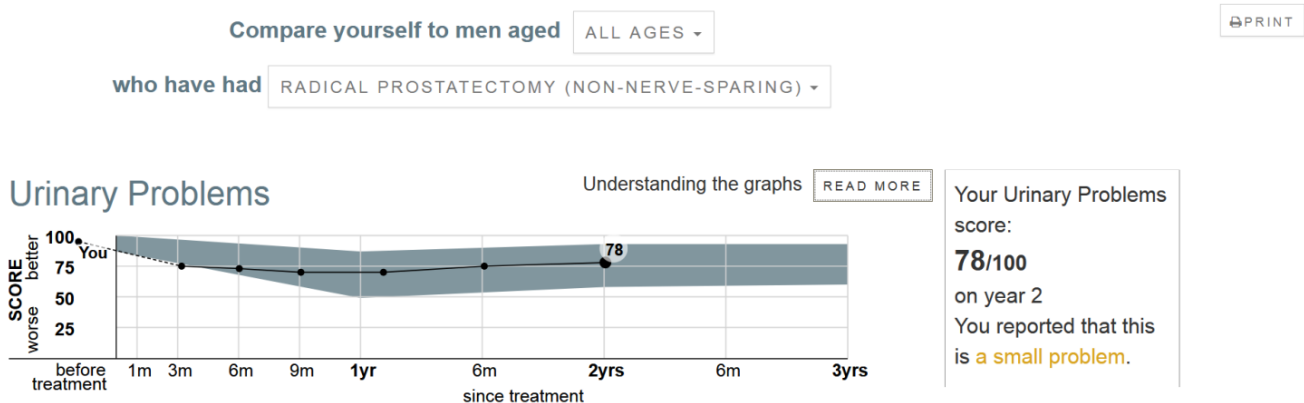
EXERCISE AND DIET →

LIVED EXPERIENCE

TrueNTH brings lived experiences from men, their caregivers and clinicians to help you in your prostate cancer journey.

LIVED EXPERIENCE →

TrueNTH Symptom Tracker



The Radical prostatectomy (non-nerve-sparing) journey


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Your symptoms are the black dots on the charts. If your dot is within the blue-grey line, then your symptoms are similar to other men you are being compared to.

Summary of your responses

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 MENU

TRUE^{NT}H
A MOVEMBER INITIATIVE

LOG IN

JOIN US

Decision Support

Choosing which treatment path to go down can be confusing and overwhelming. Being informed of the different options and how each fits into your life is critical in making the best choice for you.

START →

LEARN MORE

WATCH

