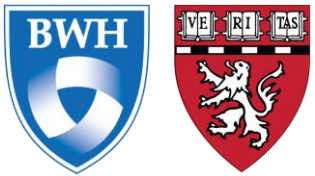
Remember Why We're Here!

A cranky call for action

Jonathan Teich, InterSystems, Brigham & Women's

June 22, 2018

InterSystems
Health | Business | Government



Once upon a time…

Mommy, I want to grow up to help humanity document reviews of systems and prevent referral leakage!

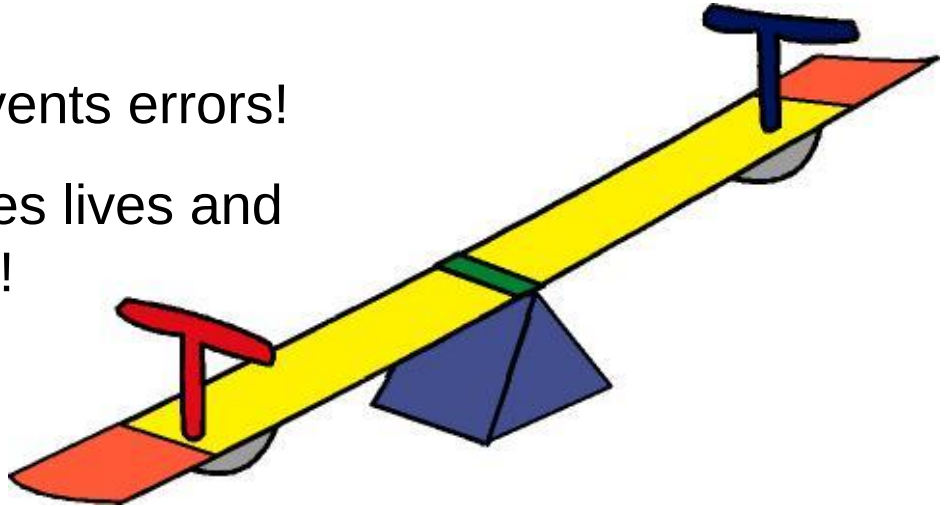
News seems to fluctuate

Causes errors!

Hurts patients!

Prevents errors!

Saves lives and $$!



Physicians equal to two medium sized medical school graduating classes commit suicide each year. Connection to stress from EHR and other computer related impositions that were meant to help, not harm?@...

10 7 Comments

Meanwhile…

- We don’t have continuity of care
- Can’t make an appointment
- Don’t have logistics for opioid treatment, social services, detox
- Miss tests
- Poorly manage chronic conditions
- Don’t transmit end of life wishes
- Lack access to care
- Delayed or unavailable services

Catalog of Helping Your Mom

Smart Group

- Quality / Care management
- Safety (preventive and reactive)
- Cost of care
- Knowledge awareness (WDIDN)
- Learning through data (incl research support)

Easy Group

- Situational awareness
- User satisfaction (operational)

Patient Group

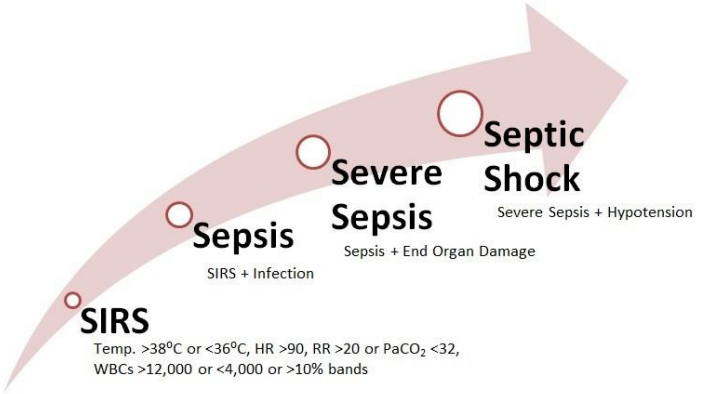
- Patient awareness
- Patient participation
- Patient access to services

Elsecare

- The underserved
- Global health
- Other venues
- Crises (fast and slow)

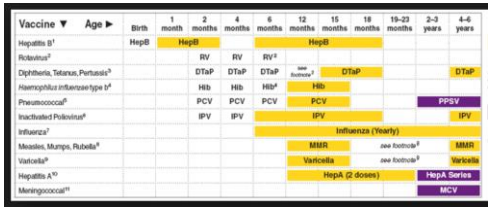
(Smart group) Proactive quality CDS

- **Acute:** sepsis, stroke tx, ERAS
- **Transition:** care continuity, med rec, pre-/post-procedure, care plans
- **Health targets:** immunization, opioids, suicide risk, readmission, end of life



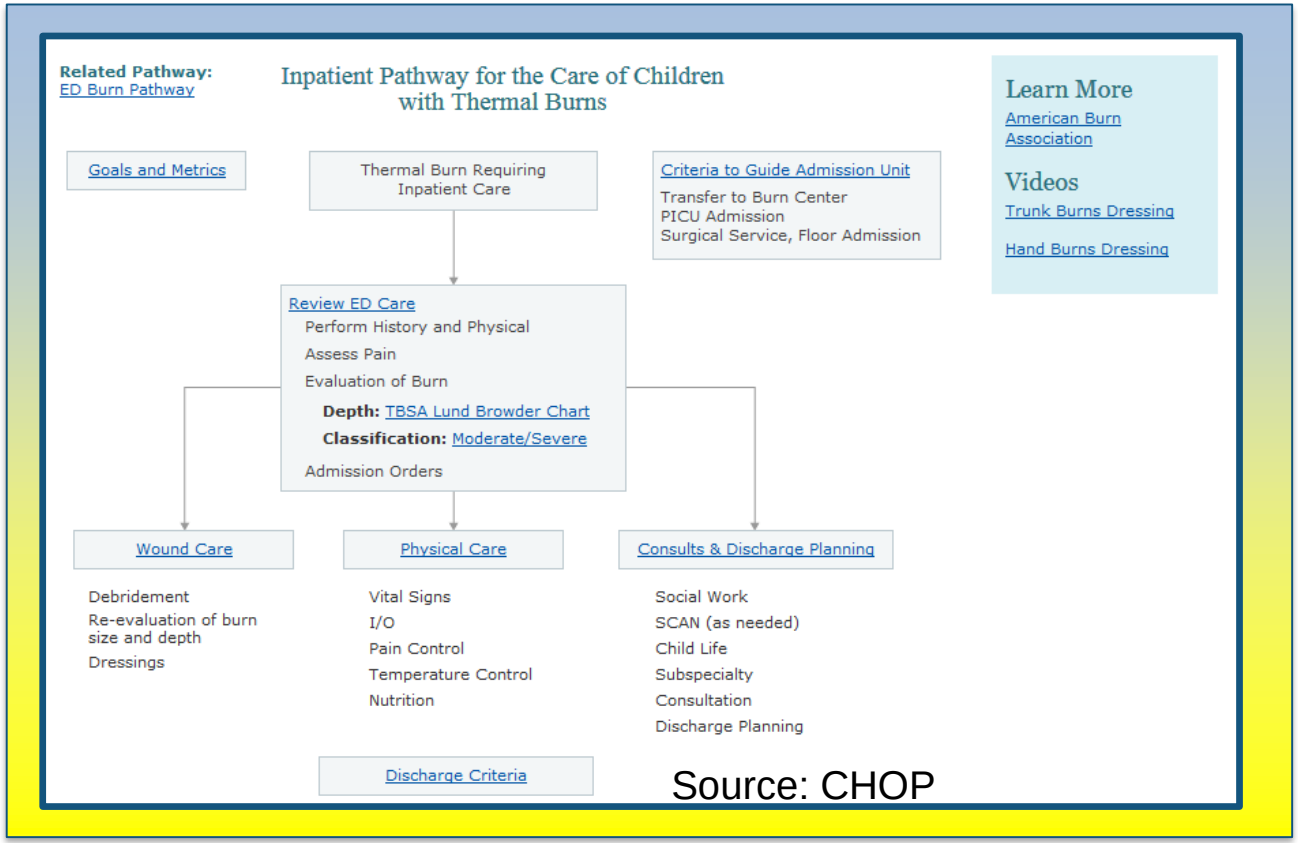
ERAS®

MAT Medication-Assisted TREATMENT



(Smart group) Care plans / pathways

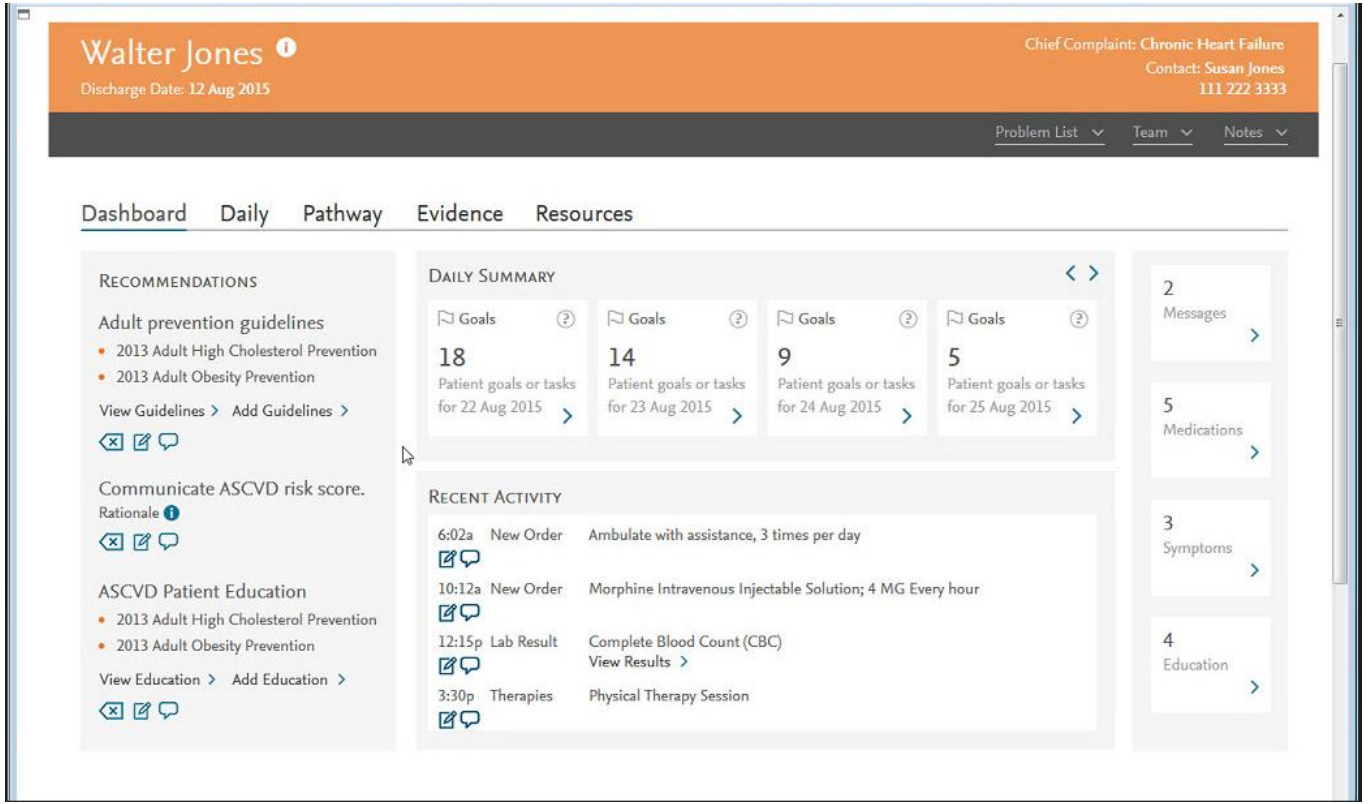
- Multi-person, -step, -venue
- Promote timely care
- Prevent omissions
- Combine info and action



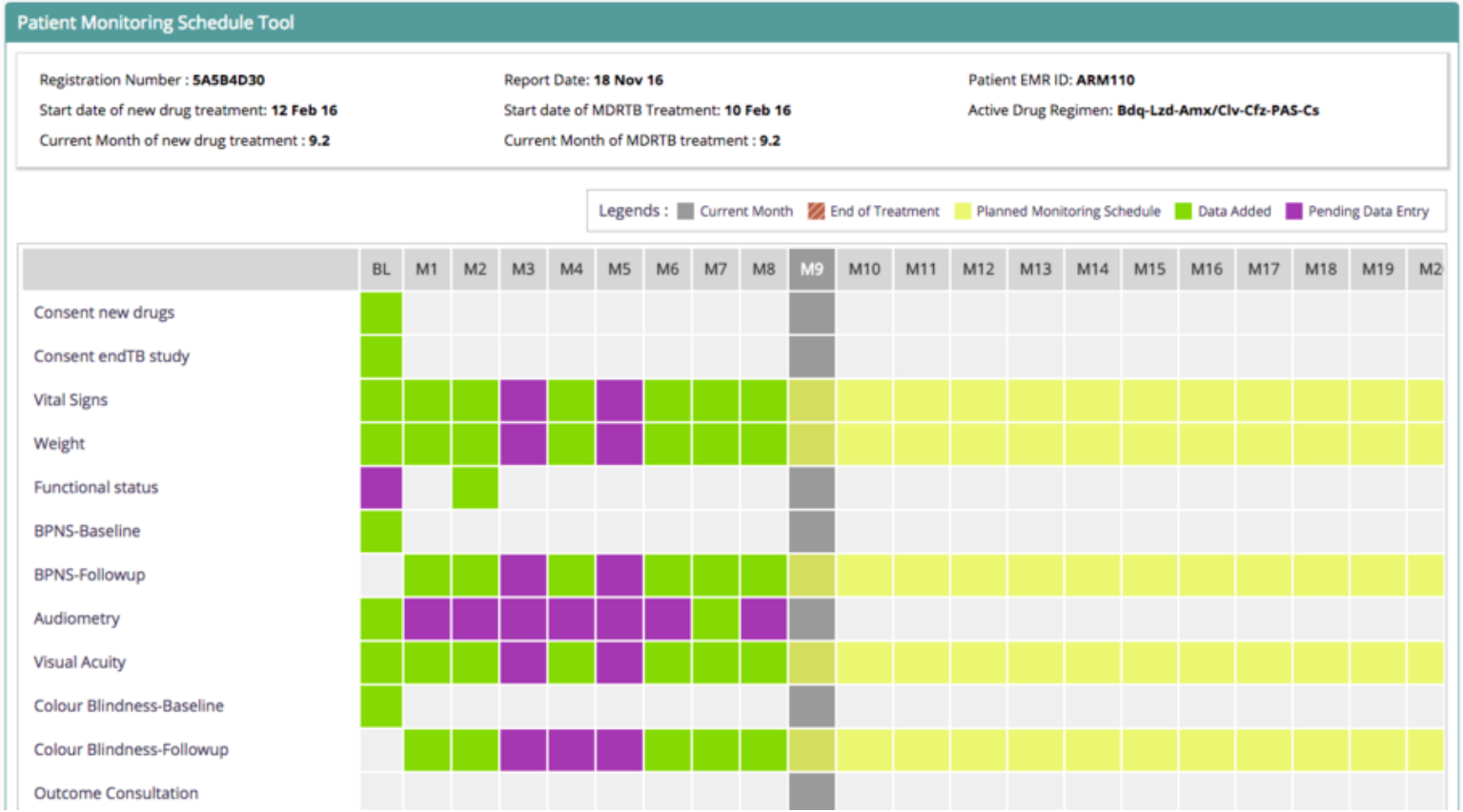
Source: CHOP

Also: Connect to services

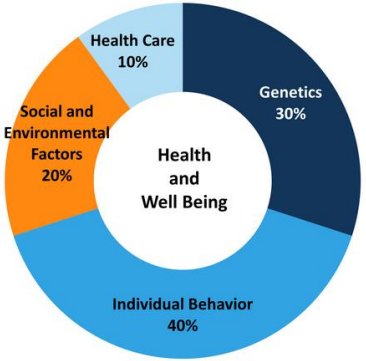
- Transportation
- Communication
- Referral
- Monitoring



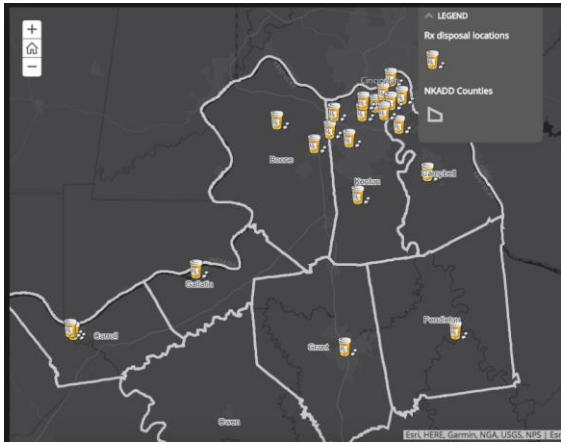
MSF/PIH worldwide Tb drug testing



New data sources

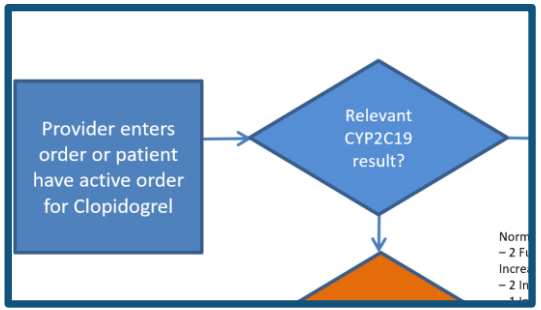


SDoH

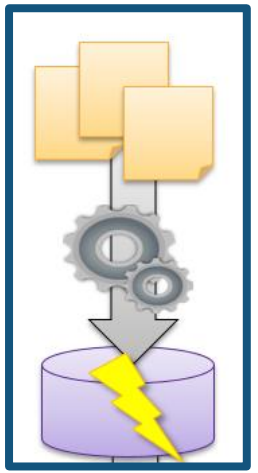


GIS

Genomics



NLP



Others in Smart group

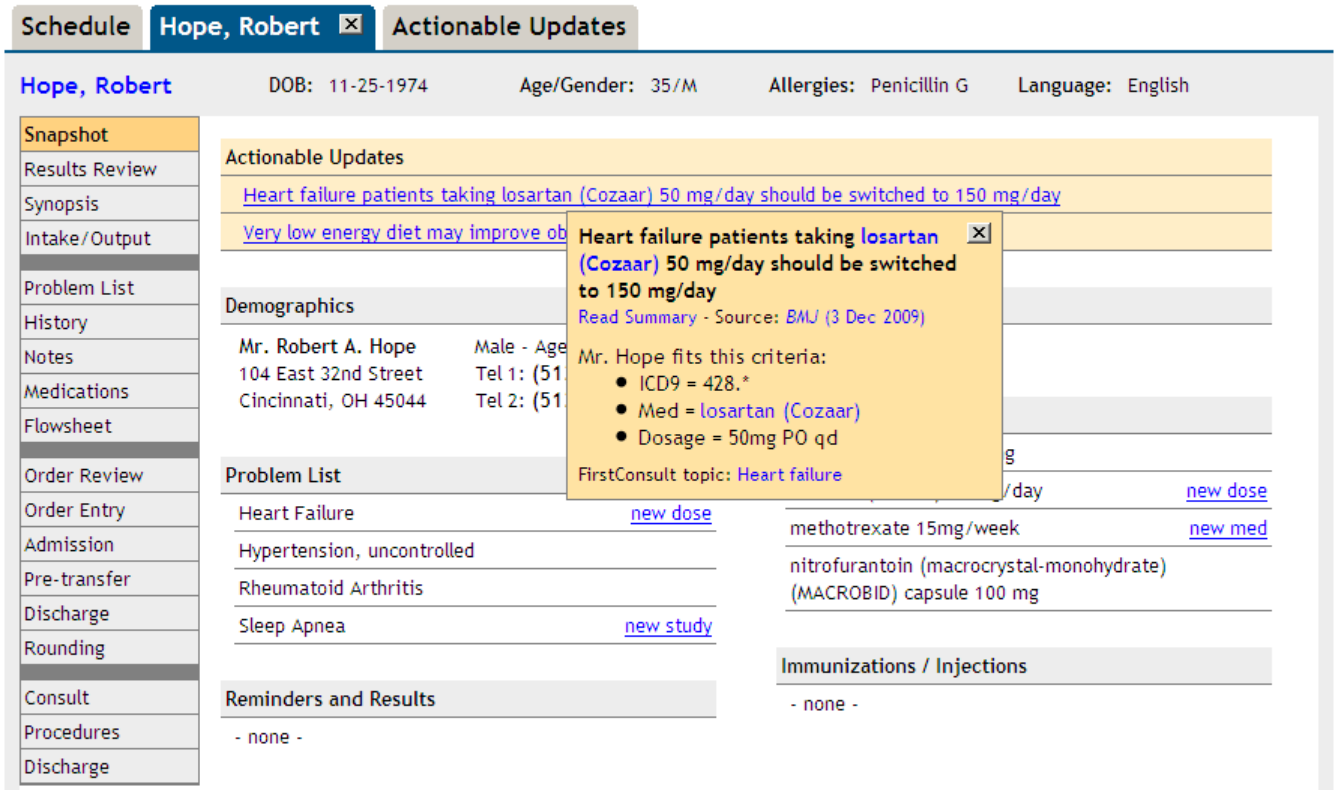
- Readmission prediction and prevention – Indian Health
- Evaluate patients for Harvoni – U. Kentucky
- Intervene on care plan patients in the ED – Healthix
- Highlight relevant order sets – Brigham
- ED frequent flyer detect/intervene – Chicago

(Easy group) Smart summary *

In general:

Write less

Read less



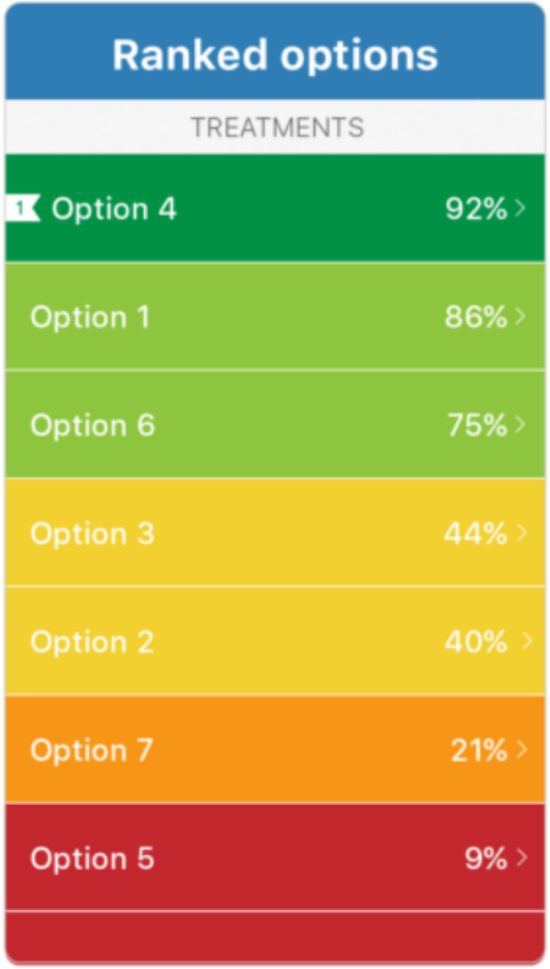
Focused views

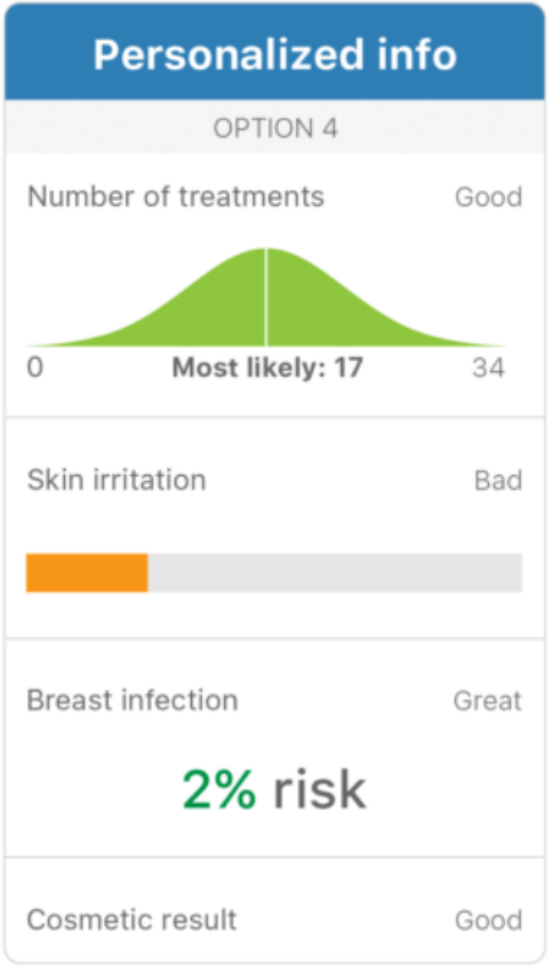
Others in Easy group

- Cut-and-paste compressor
- Simplified documentation (hello, CMS…)
- Intelligent chart review
- Summaries for oncology, ICU, anticoag…
- Concierge: summarize patients, initiate communication, notify

(Patient group)

- Data views for patients
- Shared decision-making
- Self-assessments
- Visualizations
- Report PROMs



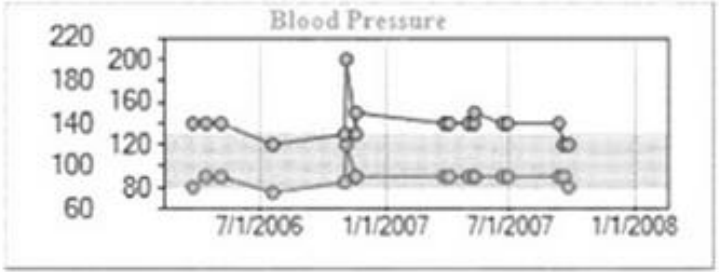


Automatic patient info sheets

should take aspirin regularly. Tip: Enteric-coated aspirin is effective and often safer than non-coated aspirin.

Blood Pressure

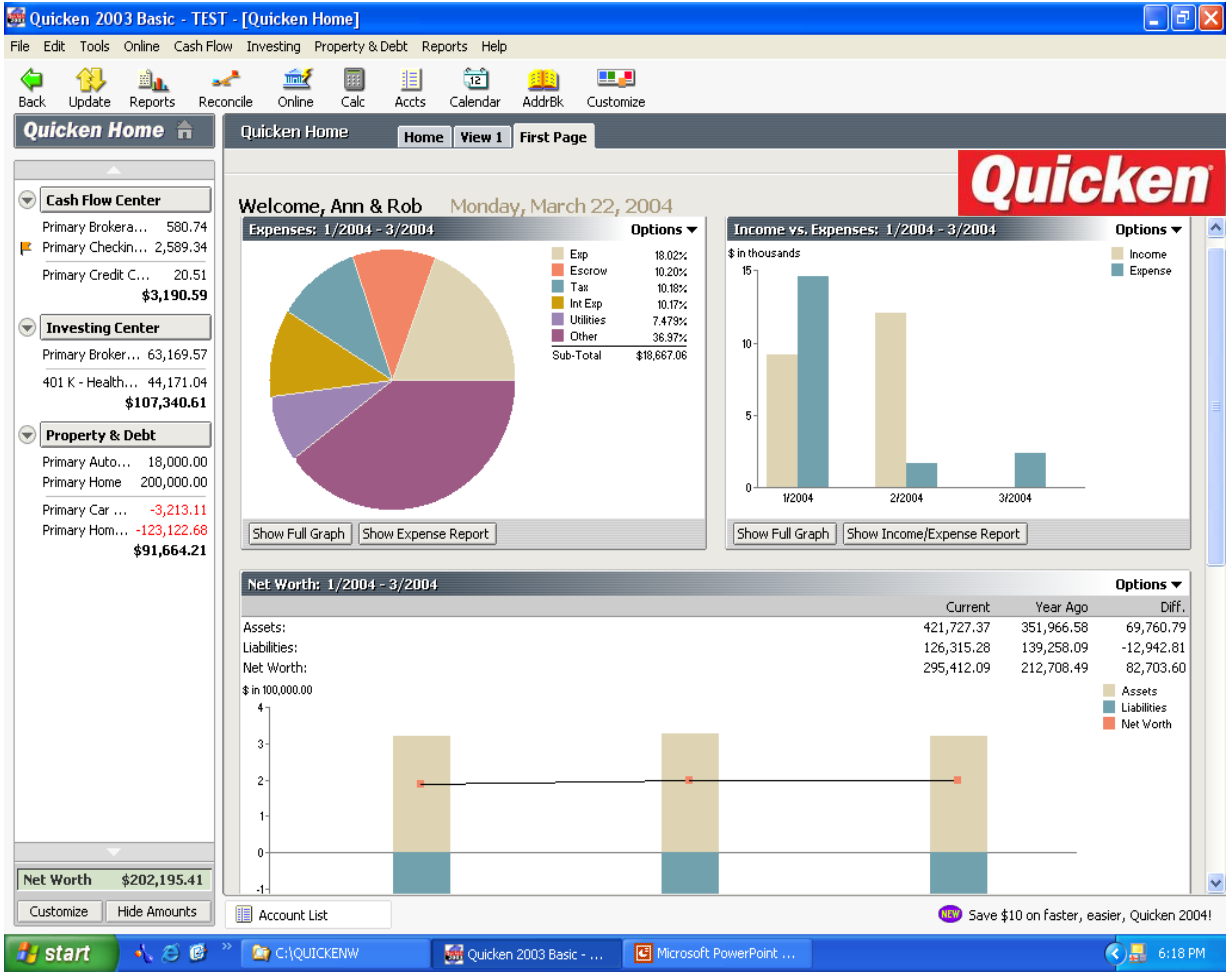
On average, your blood pressure has been running high recently (average of 120/85 from your last two visits). The recommended blood pressure goal is 130/80. If your blood pressure medicine has not been recently adjusted or you are not on blood pressure medicine, you should talk with your provider about steps you can take to help lower your blood pressure.



Urine Protein

People with diabetes have a higher risk of kidney

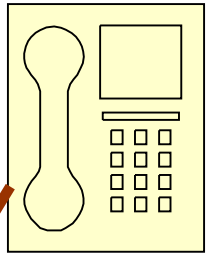
Awareness & transaction support



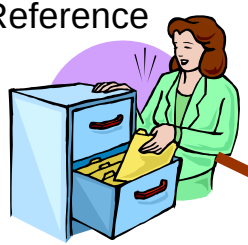
Reference

Forums

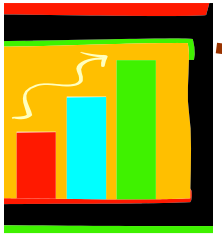
Classes



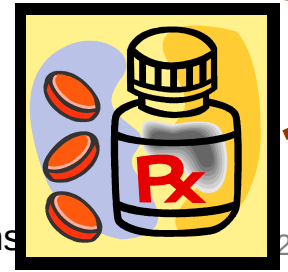
Appointment



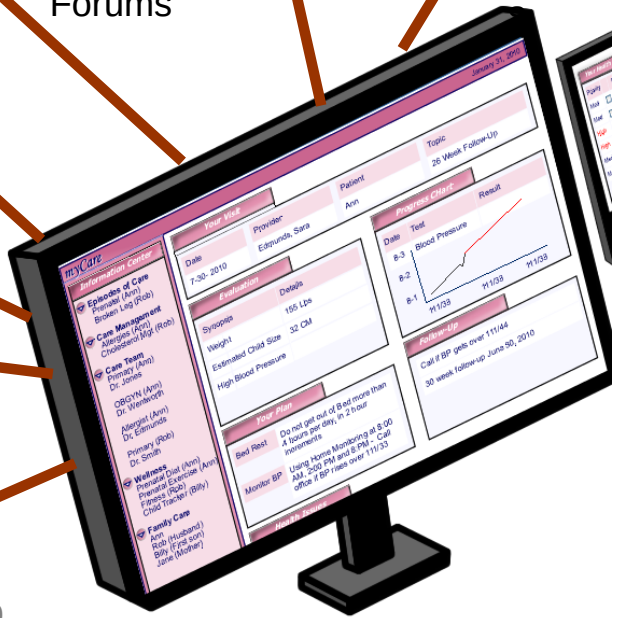
Personal record



Home monitoring



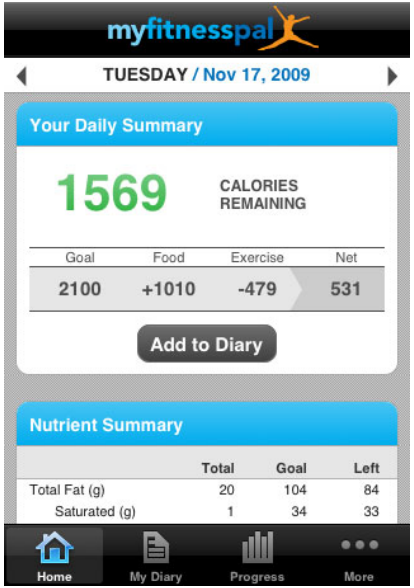
Medications



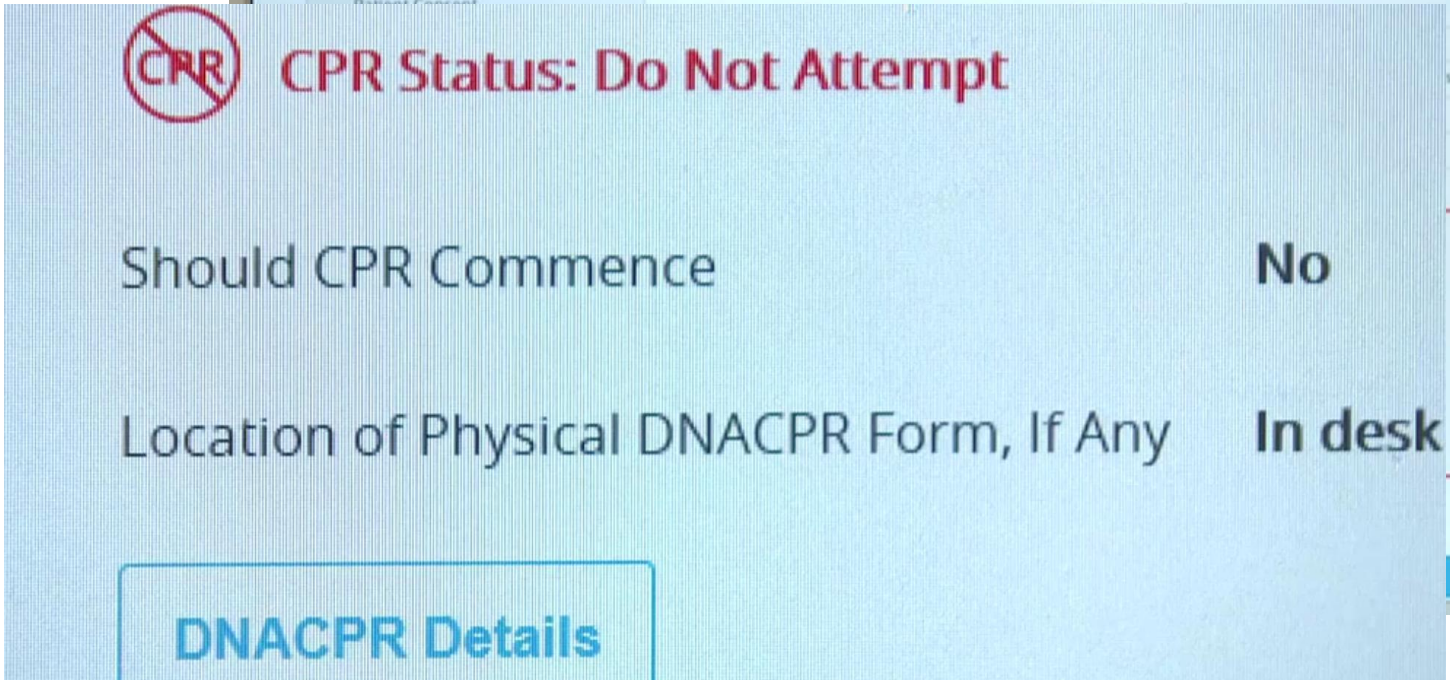
Sicken

Patient CDS

-38 AT&T
6:27 PM
80%
“How do I treat a pulmonary embolism”
OK, here you go:
Input interpretation
pulmonary embolism and infarction
drugs prescribed at visit
Result
male
female
all
coumarins and indandio⋱nes
34%
40%
38%


myfitnesspal
TUESDAY / Nov 17, 2009
Your Daily Summary
1569
CALORIES REMAINING
Goal
Food
Exercise
Net
2100
+1010
-479
531
Add to Diary
Nutrient Summary
Total
Goal
Left
Total Fat (g)
20
104
84
Saturated (g)
1
34
33
Home
My Diary
Progress
More

End of life


coordinate my care
Home
Help
Contact CMC
QUTUB SAMINA
COORDINATE MY CARE TEAM
My Account
Logout
Kenny (Kenny) BAJWA
NHS No: 999 024 8966
Born: 7 May 1951 (Age 66)
Gender: Male
Address: 1528 First Blvd
Boston, Shropshire PA70 6HE
State of Care
Plan: Published, View Only
Last clinical approval: 6 Mar 2018 at 15:28
Last clinical approver: James Champion at TRINITY HOSPICE
UPDATE CARE PLAN
PATIENT ENROLLED
SUBSCRIBE
CPR Status: Do Not Attempt
Should CPR Commence
No
Location of Physical DNACPR Form, If Any
In desk
DNACPR Details

Others in Patient group

- Rides
- Bill understanding
- Coverage helper
- Appointment scheduling
- Telehealth (real-time and store/forward)
- Home hospital
- Social care (Eu)

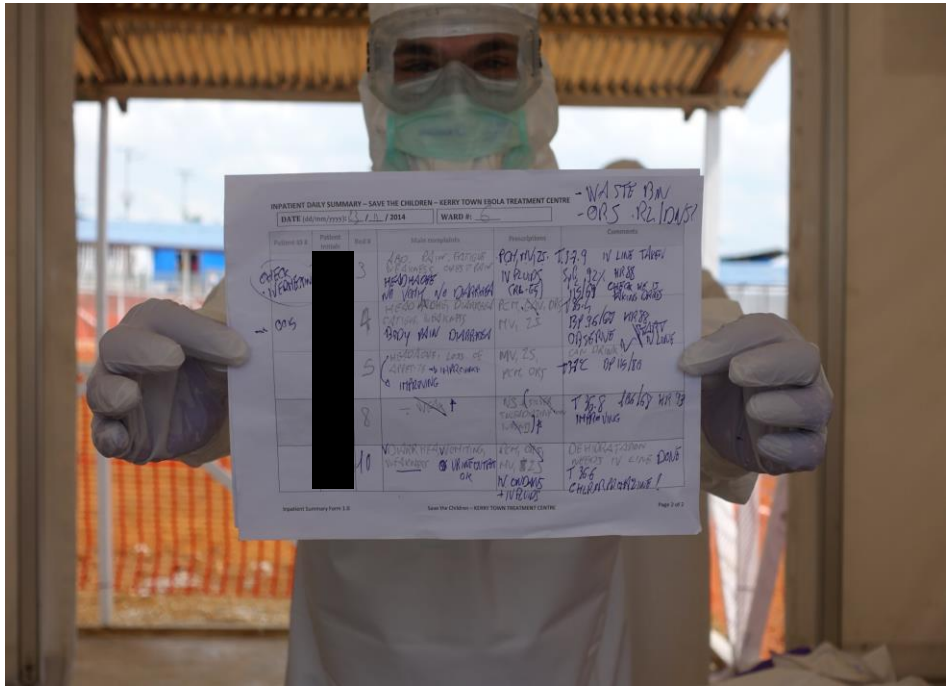
(Elsecare group) Global health informatics

A world of…

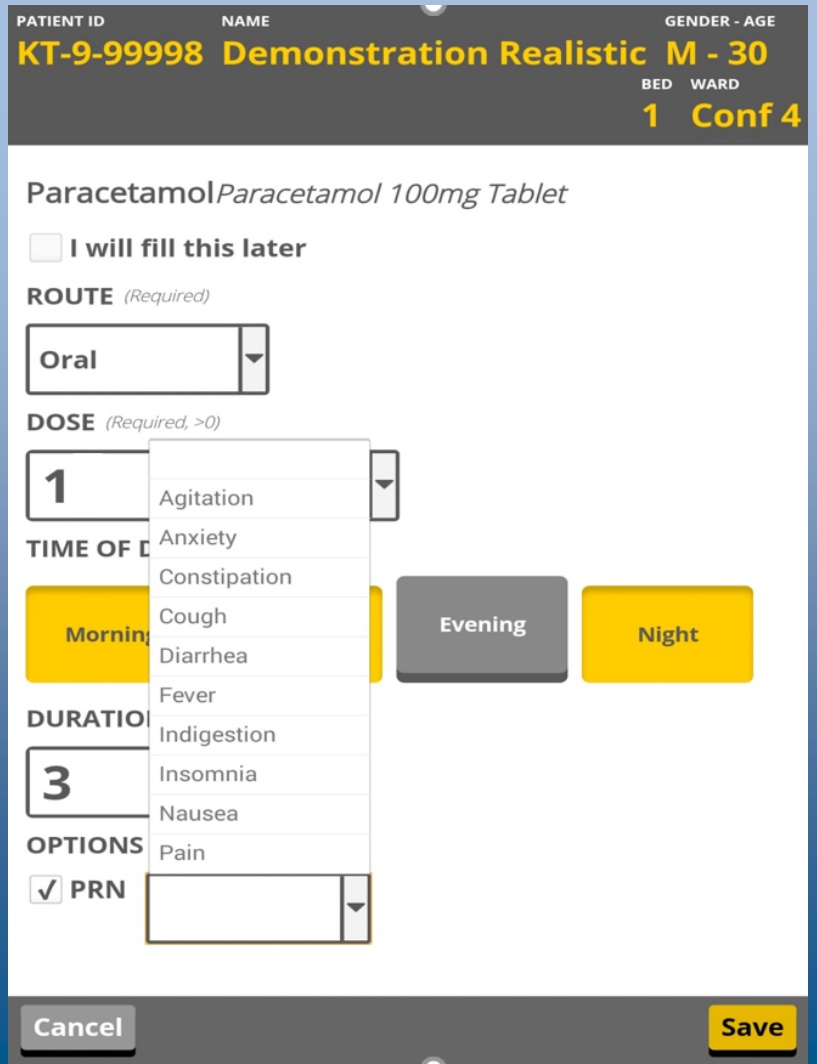
- Great health and healthcare needs
- Low resources – technical, medical, supplies
- Poor infrastructure – electric power, transportation, sanitation

- Repeatable problems
- Great opportunities to help
- (Relatively) low regulation

Ebola 2014-15



Yellow = we tried it…


PATIENT ID
NAME
GENDER - AGE
KT-9-99998
Demonstration Realistic
M - 30
BED
WARD
1
Conf 4
Paracetamol Paracetamol 100mg Tablet
I will fill this later
ROUTE (Required)
Oral
DOSE (Required, >0)
1
TIME OF D
Morning
Evening
Night
DURATIO
3
OPTIONS
PRN
Agitation
Anxiety
Constipation
Cough
Diarrhea
Fever
Indigestion
Insomnia
Nausea
Pain
Cancel
Save

Opioid crisis

Elfvengren K	Clinical Decision Support System for Opioid Substitution Therapy - uploaded to academia.edu	Smart forms	Ch t
VHA	Clinical Pain Reminders	Reminder/ Assessment	Pai
Venebio	Venebio Opioid Advisor (commercial)	Risk calculation	ic
Regenstrief Institute	CPOE Opioid CDS	Alert	
CDC/ONC	CDC Opioid Guidance iOS app	Risk calculation	
Rutgers (Frank Sonnenberg)	CDS to conform to NJ opioid regulations	Smart forms	
U of Utah	CDS Hooks MME calculator	Dose calculator	

Pain Management Resources to Support Clinical Decision Support Artifact Development:
An Environmental Scan

AHRQ Agency for Healthcare Research and Quality
CDS Connect

Others in Elsecare group

- Community care – dev world and here too (prenatal, nutrition)
- Find patient meds data after Katrina
- Oak Street health – community-based care IT
- Long-term care
- Sub-acute care

All of these are within reach

- **S** ummarize
- **C** ommunicate
- **A** lert
- **R** ecommend
- **F** ollow

The future is…

- **Helpful, practical and usable**, rather than just fancy
- Simple > complex
- We will be helped by future tech…after a few bumps

Thank you!

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