

Connecting the Patient

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What Does Connecting the Patient Mean?

- Using information and communications technologies to enable:
 - Sharing of the medical record
 - Jointly developing a care plan
 - Delivering care at home or work
 - Improving access to a provider

What is Fueling This?

- Consumer desire for more of a partnership with their care providers
- Consumer demand for more convenience and access to quality care
- Payer/employer/provider interest in managing care costs and improving quality
- Extensive adoption of low-cost and potent communication devices in the home and on the person



Patients are Ready for This

- A WSJ/Harris Poll (10/14/05) found that:
 - 83% favor the use of home monitoring devices
 - 81% favor the use of email to communicate with their doctor





BWH Women's Health Center PATIENT GATEWAY

- Home
- Logout
- Feedback
- Policies
- Sitemap
- Research

- Mail
- Requests
- Health Record
- Health Library
- My Providers
- My Profile
- Help

Welcome

Dear Hi////////// Oetest,

You have [2 new messages](#)

You have no future [appointments](#)

You have a [task to complete](#) in the Prepare for Care study

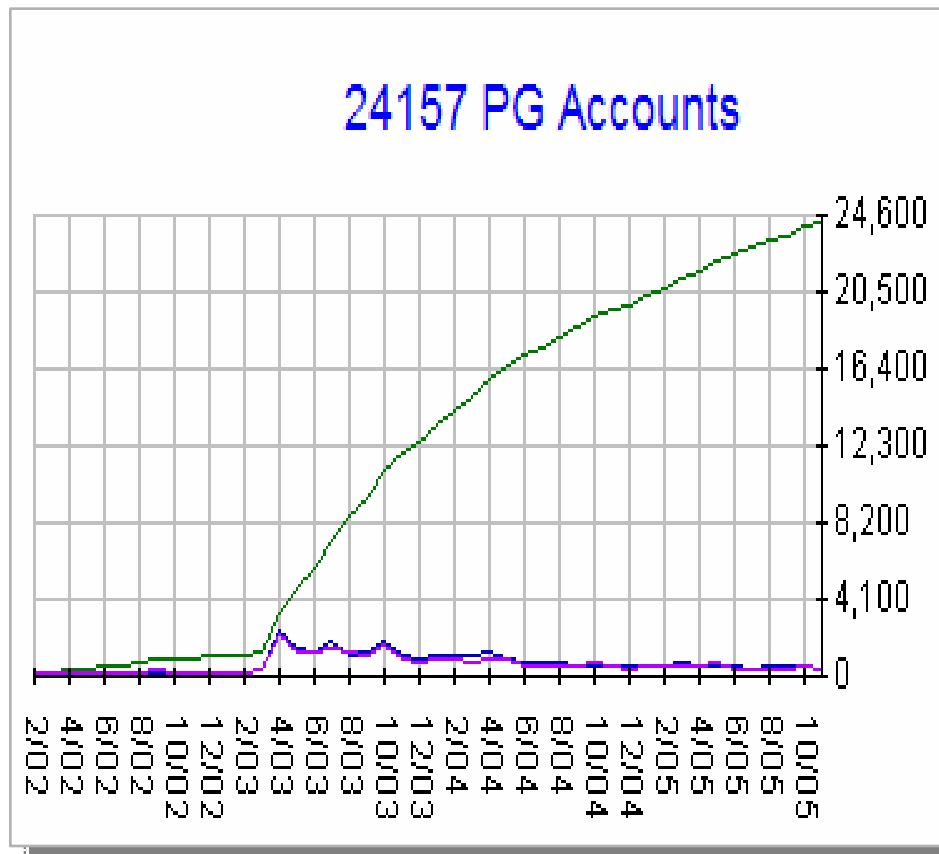
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The **Women's Health Center at Brigham and Women's Hospital** provides comprehensive primary care to adult patients. From routine checkups to complex



Rapid Growth in Adoption



- Over 24,000 accounts
- September 2005
 - 2400 requests from patients
 - Over 200 Partners physicians
- Advanced features being studied:
 - Shared medication list
 - Chronic disease plan development
 - Family history recording

https://webqa.partners.org - Patient Gateway :: Research Home :: Office Chart Information :: Me - Microsoft Int...

Patient Gateway
Connecting with care.

Back Print Close


Medications -- H

Research Home > Office Chart Information > Medications

Medication information from your physician's office chart is shown below. For more details about an item, click on the "i" icon next to the name. Medication information is usually reviewed at the time of your office visit. [More about medications](#)

Need to discuss allergy or medication changes or concerns? See below...

Current Medications

Cefzil SUSP (CEF)	CEFZIL SUSP (CEFPROZIL SUSP)  500 MG (250MG/5ML SUSP RECON take 10 ML) by mouth every 12 hours x 10 days, 10ML=2tsp (prescribed by Alexander Alexeyev on 05/25/2005)
Claritin (LORATA)	
Glyburide	
Hydrochlorothiaz	

If you want to discuss important changes or concerns about your medications or allergies, please request an appointment. To submit simple, non-urgent changes to your doctor's office without a scheduled visit, you can create a [medication/allergy update](#).

*** Medical information contained in these pages is extracted from the legal health record. ***

Done

More Info

EMR Details

List

Tele-care option

https://webqa.partners.org - Patient Gateway :: Research Home :: Journal :: Medications - Microsoft Internet Ex...

Current Medications

- Amoxicillin
- Bactrim DS (TRIM)
- Glucophage (METF)
- Glucophage XR (M)
- Lipitor (ATORVAS)
- Lisinopril
- Robitussin AC (G)

[Add Medication](#)

GLUCOPHAGE (METFORMIN)

1000 MG (1000MG TABLET take 1) by mouth twice a day ; Refills: 5 [Continue](#)
(prescribed by ? on 05/09/2005)

▶▶Your changes are saved

PLEASE ANSWER BELOW:

Are you still taking this medication **as shown above**?

- Yes -- I take it as shown above
- No -- I take it a **different way** (e.g. amount or how often I take it)
- No -- I am **no longer** taking it
- No -- I have never taken it
- I am not sure
- Skip

Please tell us how you take it now.
(Please use your prescription bottles, if necessary, to help answer these questions.)

Is this a medication that you take regularly? Regularly As needed Don't Know

How often do you take it?

What is the form of the medication?

What is the strength of the medication?
(eg., 40 mg tablet, 1% solution, 10 mg per puff)



How much do you take, each time you take it?
(eg., 2 tablets, 2 puffs, 4 drops in left ear)

Who changed this medication?

Please tell us about any medication concerns you might have.
(If this is not a medication, please skip to the last question below.)

Are you having any trouble at all with this medication? (For example, too expensive, side effects, does not work, etc.) Yes No Dont Know

- Trouble remembering
- Occasionally miss doses

Done   Internet

Discrepancy

Details


https://webqa.partners.org - Patient Gateway :: Research Home :: Journal :: Diabetes Care - Microsoft Internet E...

Goals **Referrals & Self-Care**

- ✓ Blood sugar control
- ✓ Cholesterol control
- ✓ Blood pressure control

BLOOD SUGAR CONTROL

Last HbA1c entry: **7.5%** (09/20/2004) Continue

Blood sugar control medications: **Glucophage (METFORMIN)**
Glucophage XR (METFORMIN EXTENDED RELEASE) 

PLEASE ANSWER BELOW:

Your most recent HbA1c blood test result, **7.5%** (09/20/2004), is from over one year ago. Please discuss having your HbA1c tested at your visit with your provider.

Would you like to improve your blood sugar control?

Yes

Comment:

No – I am satisfied with my blood sugar control

Not sure

Skip

Medications:



Medications that can play an important role in controlling blood sugar were found in your medical record. (Your medication concerns from this journal are also shown below).

- Glucophage (METFORMIN) (concerns you listed: incomplete)
- Glucophage XR (METFORMIN EXTENDED RELEASE) (concerns you listed: incomplete)

Would you like to discuss adding/adjusting medications for blood sugar control?

Yes No

Monitoring:



Patient Clinical Decision Support

Personalized information

Diabetes Care Plan

Patient's responses in the Care Plan

DIABETES CARE:

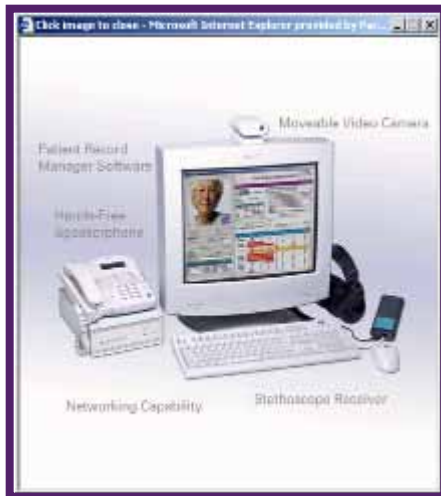
Goals:

Blood sugar control	***Would like to improve; Wants to discuss medications; Wants to discuss HbA1c testing
Cholesterol control	***Would like to improve; Doesn't want to discuss medications; Wants to discuss cholesterol testing
Blood pressure control	Is satisfied; Doesn't want to discuss medications; Wants to discuss blood pressure monitoring

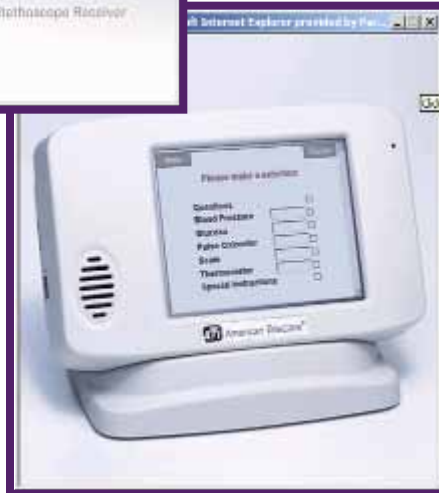
Referrals & Self-Care:

Eye care	Would like to discuss; Would like a referral;
Foot care	Doesn't want to discuss; Doesn't want a referral;
Nutrition	Doesn't want to discuss; Would like a referral to a nutritionist;
Exercise program	Would like to discuss; Would like a specific exercise program;
Smoking cessation	Does not smoke.
Daily aspirin	Would like to discuss; Already takes aspirin; Not allergic to aspirin;

CHF Remote-Monitoring



Remote monitoring of CHF patients in the homecare setting



Research finds:

- ✦ Patients using remote monitoring service required 40% fewer nursing visits to the home; Patients using remote monitoring service had a 33% reduction in hospital admissions
- ✦ Patients reported improved quality of life and increased involvement in their care
- ✦ Implementation underway

Acute Stroke Care Delivery



- ✦ 13 Hospitals across Massachusetts linked to the MGH Acute Stroke Service to meet DPH Primary Stroke Service licensure requirements for Emergency Departments
- ✦ Access to neurological expertise and rapid treatment options using teleradiology and real-time, video-enabled patient evaluations
- ✦ Brings tertiary level of acute stroke care into the community hospital setting
- ✦ Sustainable, shared-cost model

Stroke 1999;30:2141-2145

Prehospital Emergency Care 2002;6:210-214

Acad Emerg Med. 2004;(11):1193-7

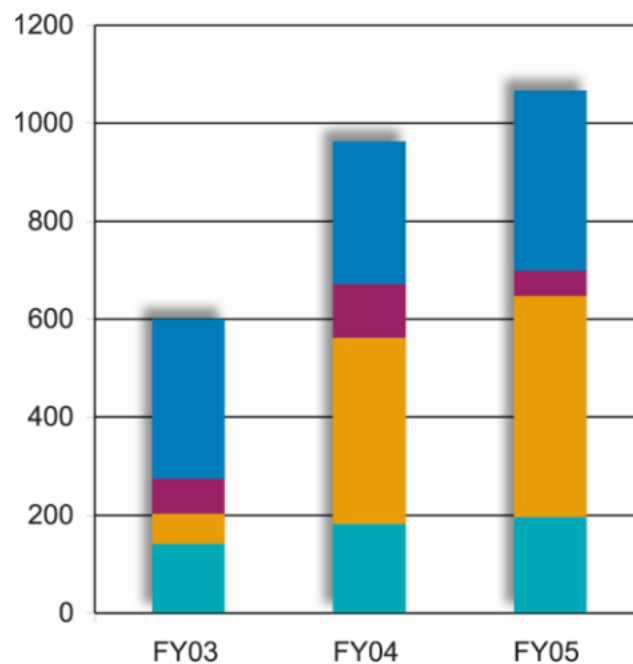
Circulation. 2005;111(8):1078-91

Nantucket Hospital Tele-dermatology



- ✦ Over 450 patients to date
- ✦ Increased patient convenience
- ✦ Sustainable business model; leverages lower costs of physical plant in Nantucket

Partners Online Specialty Consultations

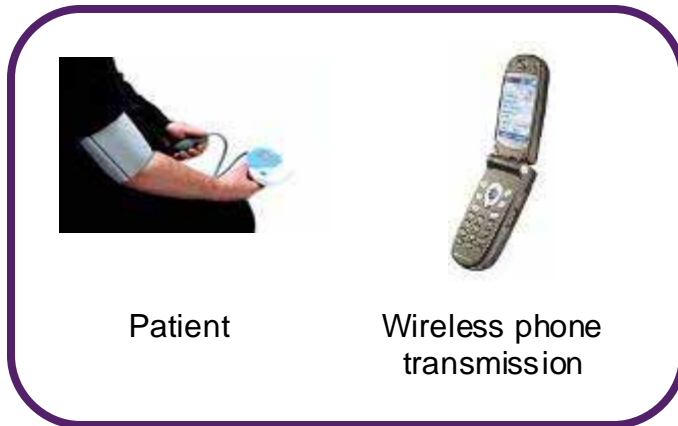


- Second opinion consults
- Radiology consults
- Pathology consults
- Other

- ✦ Web-based consultation service connecting patients and local doctors with Harvard Medical Faculty
- ✦ Growing corporate business
- ✦ 90% of online second opinions lead to a significant change in the patient's care plan

Kedar, I., Ternullo, JL., Weinrib, CE., Kelleher, KM. Kvedar, JC. Physician-to-Physician Internet-Based Consultations. BMJ. 2003. 396. 696-699

Hypertension Monitoring



Planned study – remote monitoring of blood pressure to allow dosages and medications to be managed by phone or Internet

Research objectives:

- ✦ Clinical outcomes of monitored patients
 - change in BP from baseline,
 - percentage of patients at goal, number of medication adjustments made
- ✦ Impact on number of office visits needed by this population
- ✦ Evaluation of change in efficiency and access

Dermatology e-visits

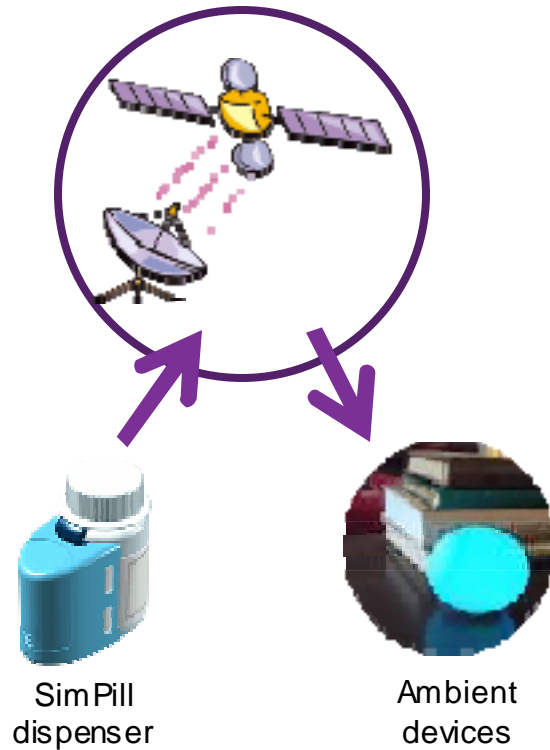


*Planned study – web-based “visits”
to substitute for follow-up in-office visits*

Research Objectives:

- ✦ Clinical outcomes for web-visits versus in-office visits
- ✦ Impact on patient and physician satisfaction – efficiency, convenience, willingness to pay, outcomes
- ✦ Impact on wait times and access to dermatologists
- ✦ Evaluate reimbursement value with Blue Cross/Blue Shield of MA

Hypertension Adherence



SimPill
dispenser

Ambient
devices

Research objectives:

- # Impact of real-time information and feedback on adherence rates
- # Patient view of using 'background' devices for personal reminders
- # Feasibility of development of automated feedback system

Planned study – using non-obtrusive devices to change patient behavior and improve adherence

Summary

- Healthcare will be safer, higher quality, less expensive and more convenient if we “connect the patient”
- Advances in information and communication technologies are bringing this vision to reality