



Technology and Knowledge: The Two Driving Forces of DM Innovation and Impact

Presented at

The Disease Management Colloquium
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Next Generation Challenges for DM

1. Improve the impact of existing programs
2. Develop new DM programs that can reduce costs and improve quality – for **NEW** diseases and patient populations
 - Beyond CHF, Diabetes, Asthma, COPD, and CAD....
3. Reduce the operational costs of current DM programs
 - Leverage valuable and expensive nursing personnel

In other words, the challenge is to simultaneously improve the efficiency and effectiveness of Quality Improvement programs.....

- **Efficiency can be significantly improved by deploying better technologies...**
- **Effectiveness is improved by deploying better clinical and care management knowledge...**

Types of Care Management Knowledge

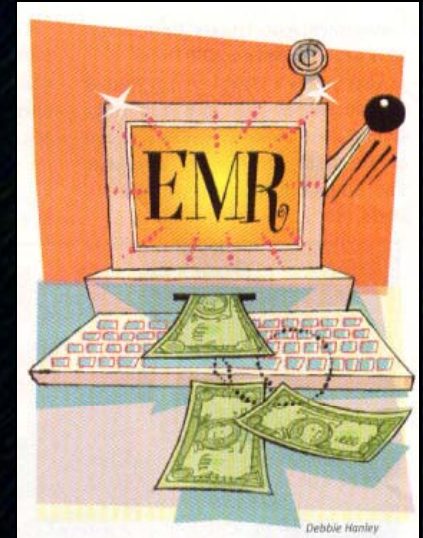
- **Clinical guidelines** (this is the easy one!)
- **Methods for identifying appropriate patients**
- **Risk stratification methodologies**
- **Interventions to create behavioral change & empower patients**
- **Interventions to encourage providers to follow evidence-based medicine**
- **Approaches to managing a complex case**
 - Assessment, Planning, Coordination, Advocacy
- **Tools to assess and monitor patients**
- **Approaches to defining and measuring outcomes**

Future “Killer Apps”?

- **EMR**
- **Remote Patient Monitoring**
- **E-Prescribing**
- **POE/Computerized Reminders**
- **Care Management IT Platforms**
- **Predictive Modeling**
- **Web-based patient education and interactivity**
- **Personal Medical Record and Self Care**
- **Self Monitoring Tools**
- **Secure messaging (physician to patient)**
- **Patient reminder systems**

Electronic Medical Record: Benefits

- Increased accuracy of data
- Sharing of data between providers across geographic sites
- Automatic reminders for preventive interventions or F/U visits
- Tracking and trending of data
- Profiling of outcomes
- Automated guidelines



Logician - Harry S. Winston MD @ Millennium Health System (LOCAL) - 5/13/2002 12:08 PM - [Chart]

Go Actions Options Help

Desktop Chart Appts Reg Reports New View Print Internet Help EXIT

Walter S. Caldwell **CHECK PROTOCOLS** Home: 503-555-6054 Work: 503-434-0090
63 Year Old Male (DOB: 04/13/1939) Patient ID: 234-TEST011 Insurance: CHC (Gold Plan) Group: CHC2342

Find Pt. Protocols Graph Handouts Update Phone Nt. Refills

Summary Problems Medications Alerts Flowsheet Orders Documents

Problems

Hx of ANGINA, FUNCTIONAL CLASS III
 Risk of CORONARY ARTERY DISEASE
 HYPERCHOLESTEROLEMIA
 CHRONIC AIRWAY OBSTRUCTION (COPD)
 PROSTATIC HYPERTROPHY
 ARTHRITIS
 HYPERTENSION, BENIGN ESSENTIAL

Medications

MEVACOR TAB 40MG (LOVASTATIN) 1 po qd
 NITROSTAT SUB 0.4MG (NITROGLYCERIN) 1 sl prn c/p, max
 ACCUPRIL 10 MG TABS (QUINAPRIL HCL) 1 po bid

Allergies

PERCOCET

Directives

DO NOT RESUSCITATE

Registration Notes

Likes to be called "Wally",
 hates "Walter"

Flowsheet: Enterprise/Cardiology/Cardiac

	Date	Value
BP SYSTOLIC	11/20/1996	150
BP DIASTOLIC	11/20/1996	105
PULSE RATE	11/20/1996	88
PULSE RHYTHM		
RESP RATE	11/20/1996	14
WEIGHT	11/20/1996	188
BMI		
AUSCUL HEART		
EXERCISE		
SMOK HX PPD		
ALCOHOL USE		

Documents: All

Date	Summary	Status
04/19/2002	Ofc Visit: Hypertension Visi	On Hold
03/11/2002	Ofc Visit: ENT Visit	On Hold
03/10/2002	Ofc Visit	On Hold
12/18/2001	Ofc Visit	Signed
04/05/1999	Cons Rpt: Cardiology Consu	Signed
03/30/1999	Hosp D/C: Acute MI	Unsigned
12/02/1996	Phone: Labs and PFT's disc	Signed
11/28/1996	Lab Rpt: CBC	Signed
11/25/1996	Lab Rpt: Lipids	Signed
11/25/1996	Diag Rpt: PFT and Oximetry	Signed
11/20/1996	Ofc Visit: FAJ chronic probl	Signed
05/20/1996	Phone: TC with patient to re	Signed

For Help, press F1

NUM

Vision – Real Time Web Reports

Medscape : Practice Profiles - Microsoft Internet Explorer provided by MSN

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print

Address D:\Encounter_Screens\2_Problems\Medscape_Practice_Profiles.htm Go Links Flash

Log Out *practice profiles* Current User: Dr. Harry Winston

Chart Room

Practice Profiles

- Problems**
 - Current
 - Over Time
- Medications**
 - Current
 - Over Time
- Orders and Tests**
 - Over Time
- Patient Visits**
 - Notes Over Time
 - Level of Service Over Time
- Immunizations Due**
 - By Patient Age
 - By Age Normally Given

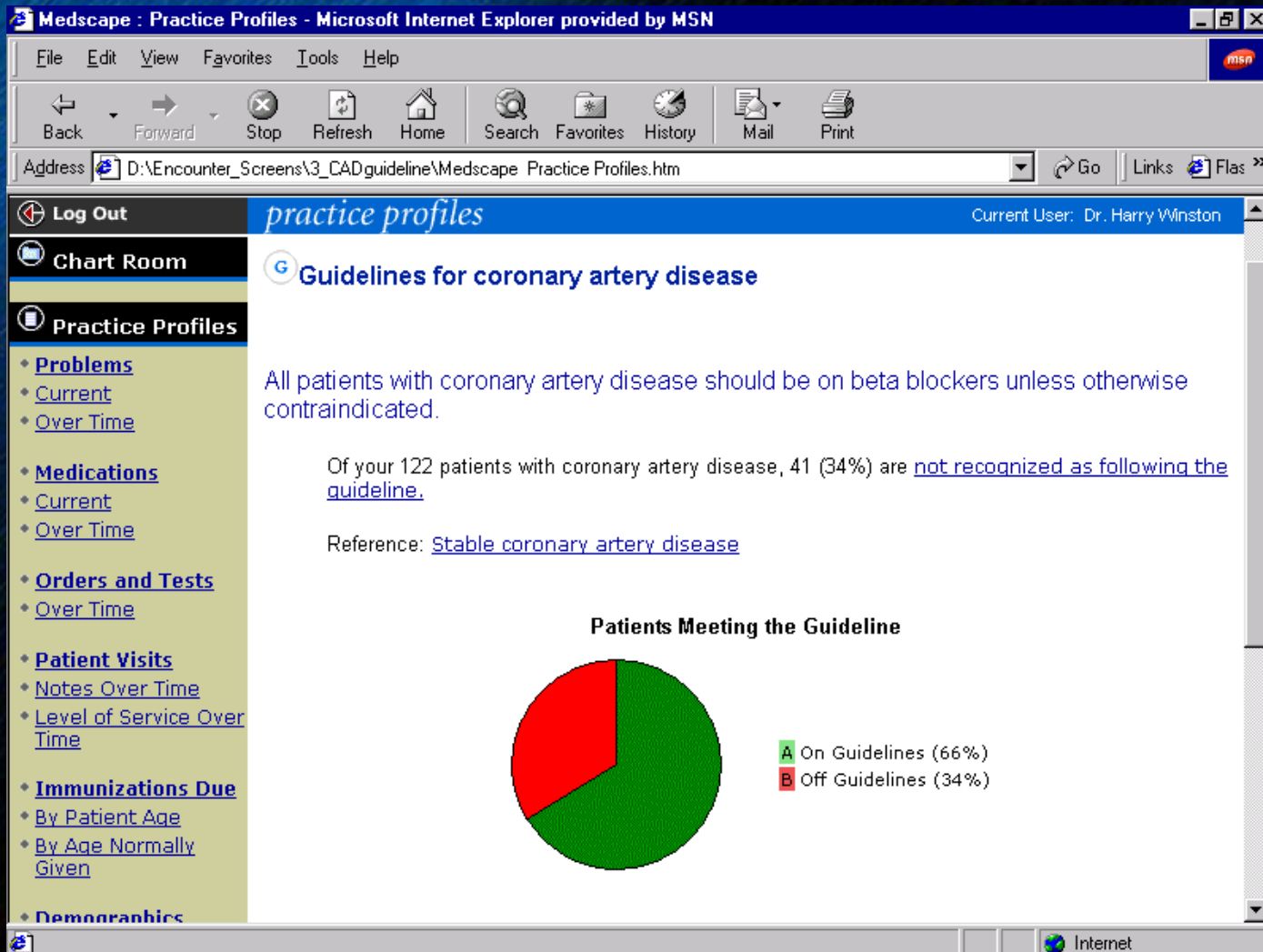
Current Problems for My Chart Room

[There are 2 Unrecognized Problems](#) [Graph Top Five](#)

	Problem Name	ICD-9	Patients ▲ (%)*
	Hypertension	401.9	512 (31%)
	Hyperlipidemia	272.4	205 (12%)
Rx	Depression	311	182 (11%)
	Diabetes mellitus, type II	250.00	176 (11%)
	Hypercholesterolemia	272.0	174 (10%)
	Gastroesophageal reflux disease	530.81	156 (9%)
	Osteoarthritis	715.90	144 (9%)
Rx	Hypothyroidism	244.9	138 (8%)
G	Coronary artery disease	414.00	122 (7%)
Rx	Obesity	311	116 (7%)
Rx	Asthma	493.90	108 (7%)
Rx G	Allergic rhinitis	477.9	100 (6%)

Internet

Vision - Web Reports



Inpatient EMR/Computerized Reminders

- RCT of computerized reminders for preventive Rx
- 6,372 patients and 10,065 admits over 18 months
- Physicians in intervention group viewed reminders when using POE

<u>Preventive Rx</u>	<u>Control Group</u>	<u>Intervention Group</u>
Pneumovax	0.8%	35.8%
Flu Vaccine	1.0%	51.4%
Heparin SQ	18.9%	32.2%
CV/ASA	27.6%	36.4%

Quality and the EMR

- A POE/EMR system offers user organizations:
 - Reduced errors
 - **Disease management reporting**
 - Quality of care reporting
 - Practice profiling
 - Computerized reminders
 - The ability to use ambulatory data for clinical research
 - A potential revenue stream from data

E-Prescribing

Provides integrated prescribing, drug reference, and charge capture in one wireless handheld device.

- Fully connected, from a Palm to 95% of pharmacies
- Accessible anywhere with a wireless handheld device
- Secure with an encryption technology
- Easy to use



In 1996, a Texas jury decided that due to illegibility, this prescription caused the patient to die.

The patient received not only the wrong medication, but at 8x the drug's usually recommended strength

MEDICAL CENTER HOSPITAL

500 - 800 W. 4TH STREET

ODessa, TEXAS

79701-1110

FOR Varguez, Ramon

AGE _____

ADDRESS 1800 W. 4th St.

DATE 6/23/96

NO REFILLS ☐

REFILL

LATE ☐

Levulin 20mg # 120 -
20mg P.O. Q6hr

Ferron sulfate 300mg # 100
300mg P.O. TID E meals

Humulin N
30 units SQ BID

Ram - Kohn

PROBANCY SELECTAIDN PERMITTED

DISPENSE AS WRITTEN

DEA #

PHARM 1418

PH 202-2 747

Experts believe that 25% of medication errors might be related to illegible handwriting.

--CNN Health

E-Prescription Capture: Allscripts EP module

1. Select Patient
2. Select Diagnosis
3. View Formulary & Select Drug
4. Confirm Dosing & Print/Fax Rx



EPrescribing through a formulary list strongly encourages compliance

1. Physician clearly sees preferred v. non-preferred drugs
 - Physician risks callbacks from pharmacists, plans and patients by prescribing off formulary
2. It takes longer to prescribe off formulary

EMRs contain Electronic Prescribing modules within comprehensive patient information systems

Logician - Harry S. Winston MD @ Southside Clinic [LOCAL] 2/2/99 11:41 AM [Chart]

Judy S. Pullman
39 Year Old Female (DOB: 06/29/1959) Patient ID: 121-TEST011
Home: 503-299-7222 Work: 503-531-7036
Insurance: CHC (Gold Plan) Group: CHC3497

Find PT | Problems | Graph | Handouts

Summary | Problems | Medications | Alerts | Flowchart | Orders | Documents | Update

Problems: ASTHMA, SINUSITIS, ACUTE NOS

Medications: PROVENTIL AERS 90 MCG/ACT, BECLOVENT AER 42MCG, PREDNISONE TAB 10MG

Allergies: ASPIRIN, ERYTHROMYCIN

Directives: ORGAN DONOR

Flowchart: Enterprise Medicine Internal Medicine

Date	Value
HEIGHT	02/17/1997 64
WEIGHT	10/01/1998 122
TEMPERATURE	10/01/1998 98.6
TEMP SITE	10/01/1998 oral
PULSE RATE	10/01/1998 64
PULSE RHYTHM	
RESP RATE	10/01/1998 12
BP SYSTOLIC	10/01/1998 128
BP DIASTOLIC	10/01/1998 72
CHOLESTEROL	11/02/1998 146
HDL	01/28/1997 90
LDL	01/28/1997 64

Documents: All

Date	Summary	Status
02/02/1999	Otc Visit: My Asthma manag	In Progress
11/03/1998	Phone: PAP Smear Results	Signed
11/03/1998	Immunos: Physical Exam	Unsigned
11/02/1998	Lab Rpt: Chemistry	Signed
11/01/1999	Lab Rpt: CBC	Signed
10/01/1998	Lab Rpt: Urinalysis	Signed
10/01/1998	Path Rpt: PAP Smear	Signed
10/01/1998	Otc Proc: Fluorid	Signed
10/01/1998	Otc Visit: Annual Medl Viste	Signed
09/12/1998	Otc Proc: Pneumonia	Signed
09/12/1998	Otc Visit: Asthma much imp	Signed
10/01/1998	Otc Visit: Renalvalue followu	Canceled

Registration Notes: Two children: Brandon (07/13/91) Alex (05/06/93)

NUM

New Medication

Name: Judy S. Pullman
Birth: 06/29/1959
Age: 39 Year Old Female
Height: 64 in (162.56 cm)
Weight: 115 lb (52.21 kg)
BSA: 1.546666 sqm
Creatinine: 0.9 mg/dl (11/02/1998)
Insurance: CHC (Gold Plan)

Current Medications

PROVENTIL AERS 90 MCG/ACT
BECLOVENT AER 42MCG

Current Allergies

ASPIRIN
ERYTHROMYCIN

Find Medication

Custom List: Internal Medicine Reference L

Formulary: CHC Gold

- ☐ Paxil 20 MG TABS is on formulary. The cost is \$\$\$
- ☒ There are no alternatives.

Prior authorization required at starting doses > 20mg

Search Formulary...
Select Formulary...
Choose Alternative
Status...

Define Medication

Medication: Paxil 20 MG TABS
Instructions:

Start Date: 02/02/1999 Stop Date:
Duration:
☒ Days ☐ Weeks ☐ Months

Prescription

Quantity: Refills: ☐ Print Pt. Handout

Pharmacy: Ideal Pharmacy
14625 SW Itasca
Beaverton, OR 97007 USA
Ph: 503-646-1194
Fax: 503-646-1196

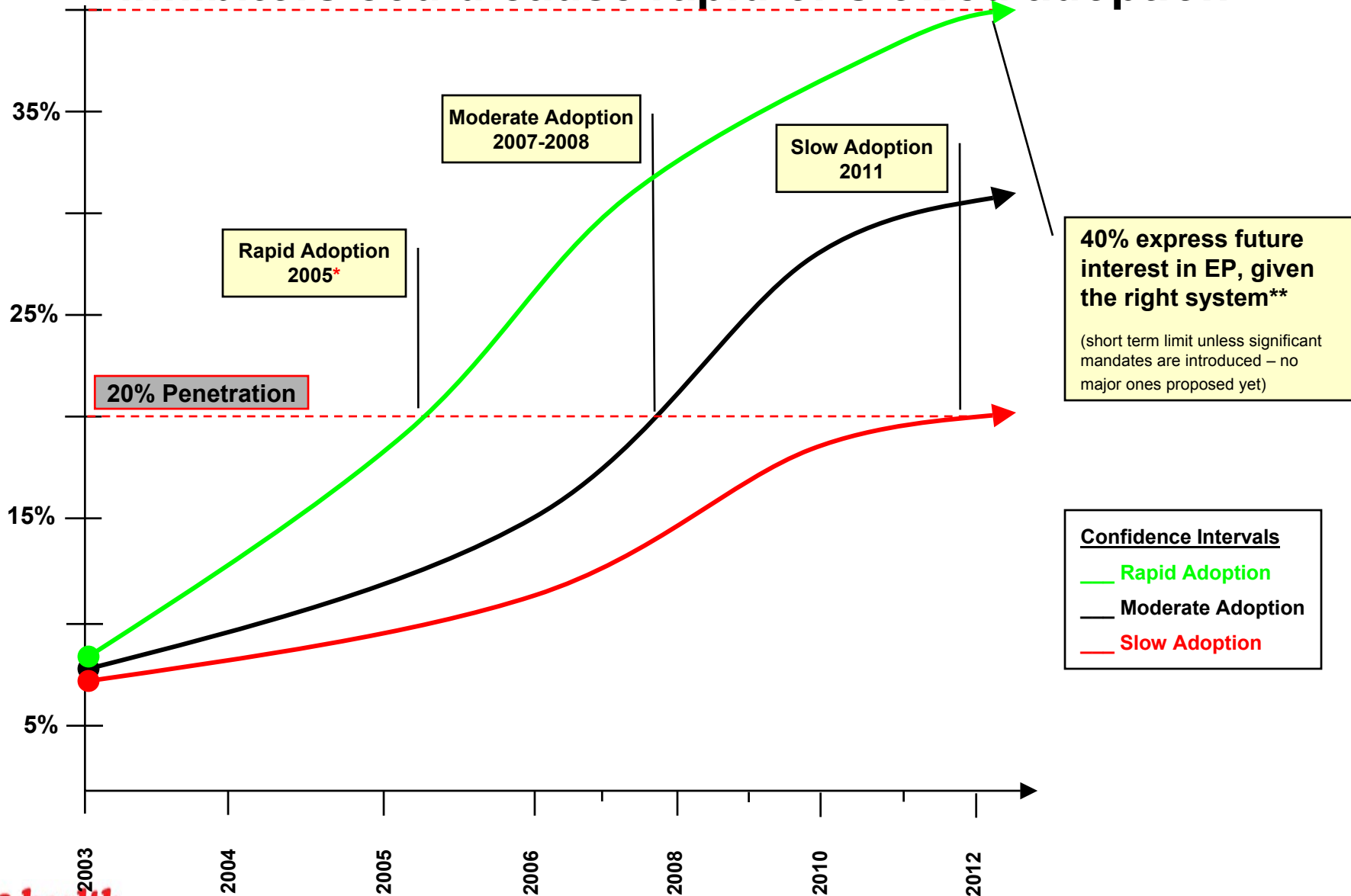
Authorized By: Winston MD, Harry S.
Prescribing Method: Telephone
State:

Add to custom list: ☐ Drug ☐ Instructions/Duration ☐ Qty/Refills

Save & Continue OK Cancel

Full prescribing capability including search & selection from formulary lists

Projected Adoption Rates: Various accelerators and inhibitors could cause rapid or slowed adoption



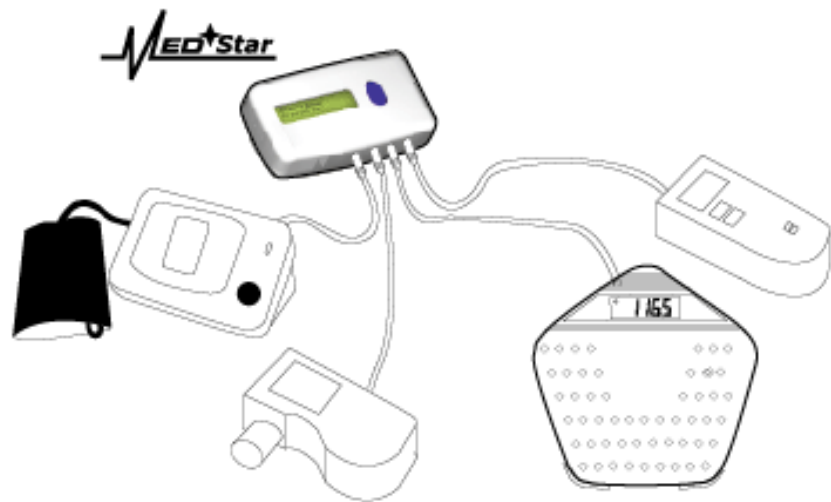
EP Could Provide a Powerful Tool to Engage Providers in DM

- 5-10% of prescribing physicians in the US currently use EP tools actively
- Short term limit on EP of ~40% To get beyond there within 10 years would require either:
 - usage mandates (Feds, MCOs, employers)
- EP can provide a powerful DM tool to:
 - disseminate guidelines
 - provide care management “prompts”
 - share confidential provider profiles and outcomes

Remote Patient Monitoring

- Monitor chronically ill patients
- Prevent hospital admissions
- Tracking/trend clinical data
- Data transmitted via phone
- Cost plummeting (\$30/month)
- Center of Excellence Tool
- Already used by many DM vendors and some MCOs





Digital Blood Pressure Monitor

Precision Health Scale

Spirometer

Pulse Oximeter

MEDSTAR SPECIFICATIONS:

Size: 4.94" x 2.75" x 1.28"

Weight: 5.7 Ounces with Batteries

Battery: 2 AA Alkalines

Battery Life: 6 Months

LCD DISPLAY:

Text: 2 Lines x 16 Characters Alphanumeric

PHONE COMMUNICATIONS TO
MEDSTAR SERVER

OPTIONAL WEB-BASED DATA MANAGEMENT SOFTWARE



Problems With Web Content

Turned Off

Why some consumers turn away from a health information site.

Site was too commercial

47%

Couldn't determine the source of the information

42%

Couldn't determine when information was last updated

37%

Site lacked endorsement of a trusted independent organization

30%

Site appeared sloppy or unprofessional

29%

Site contained information they knew to be wrong

26%

Information disagreed with own doctor's advice

20%

Source: Pew Charitable Trust



Personal Evaluation System



personal
evaluation
system



medical
library



health helpers



pharmacy



my cyberfile



help

step 1

step 2

step 3

step 4

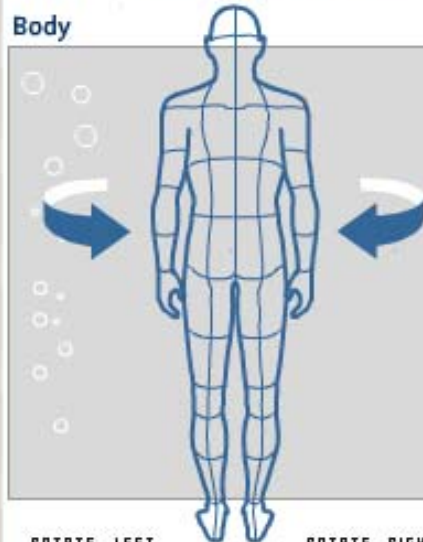
((Choose your area of concern or symptom))

((Choose from the body)), or...

((Choose from Other Areas)), or...

Choose a Symptom.

Body



ROTATE LEFT

ROTATE RIGHT

Other Areas

Dizziness / Fainting
Fatigue
Fever
I think I have a cold / Flu
Mood Or Feeling Problem
Normal Check-Up
Obesity / Weight Loss
Pregnancy Related Problem
Skin Problem

Symptoms

Abdominal Mass
Abdominal Pain, Upper
Abdominal Pain/Bloating
Abnormal Heartbeat
Ankle Problems
Bad Breath
Blood in Urine
Bloody Nose
Breast Lump
Breast Nipple Discharge
Chest Pain
Cold or Flu
Constipation
Cough
Crossed Eyes



Personal Evaluation System



personal
evaluation
system



medical
library



health helpers



pharmacy



my cyberfile



help

step 1

step 2

step 3


step 4

((Answer questions to create a profile))

Answer the following questions so we can determine possible causes of your symptom:

Did you fall or have trauma to the ankle?

- ☒ Yes
☐ No

When you press your thumb along the back of the achilles tendon, is it painful? 

- ☐ Yes
☒ No

Where is most of your pain in your ankle?

- ☒ On the outside of the ankle
☐ On the back of the ankle
☐ On the inside of the ankle

Push on the area of pain. Is it tender?

- ☒ Yes
☐ No

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[survey](#)
[directory](#)

Personal Evaluation System

personal evaluation system

medical library

health helpers

pharmacy

my cyberfile

help

step 1

step 2

step 3

step 4




((Review the results of your profile))

Profile:

You indicated Ankle Pain (not from Recent Injury).

This is not a substitute for a medical evaluation by a licensed physician. Your profile suggests the following possibilities. Click on the possibilities and read the explanation and treatment options. We hope this helps you with your health decisions.

Possibilities:

Name	Severity Level
BROKEN ANKLE	 severe
SPRAIN	 mild
ACHILLES TENDON TEAR (RUPTURE)	 severe

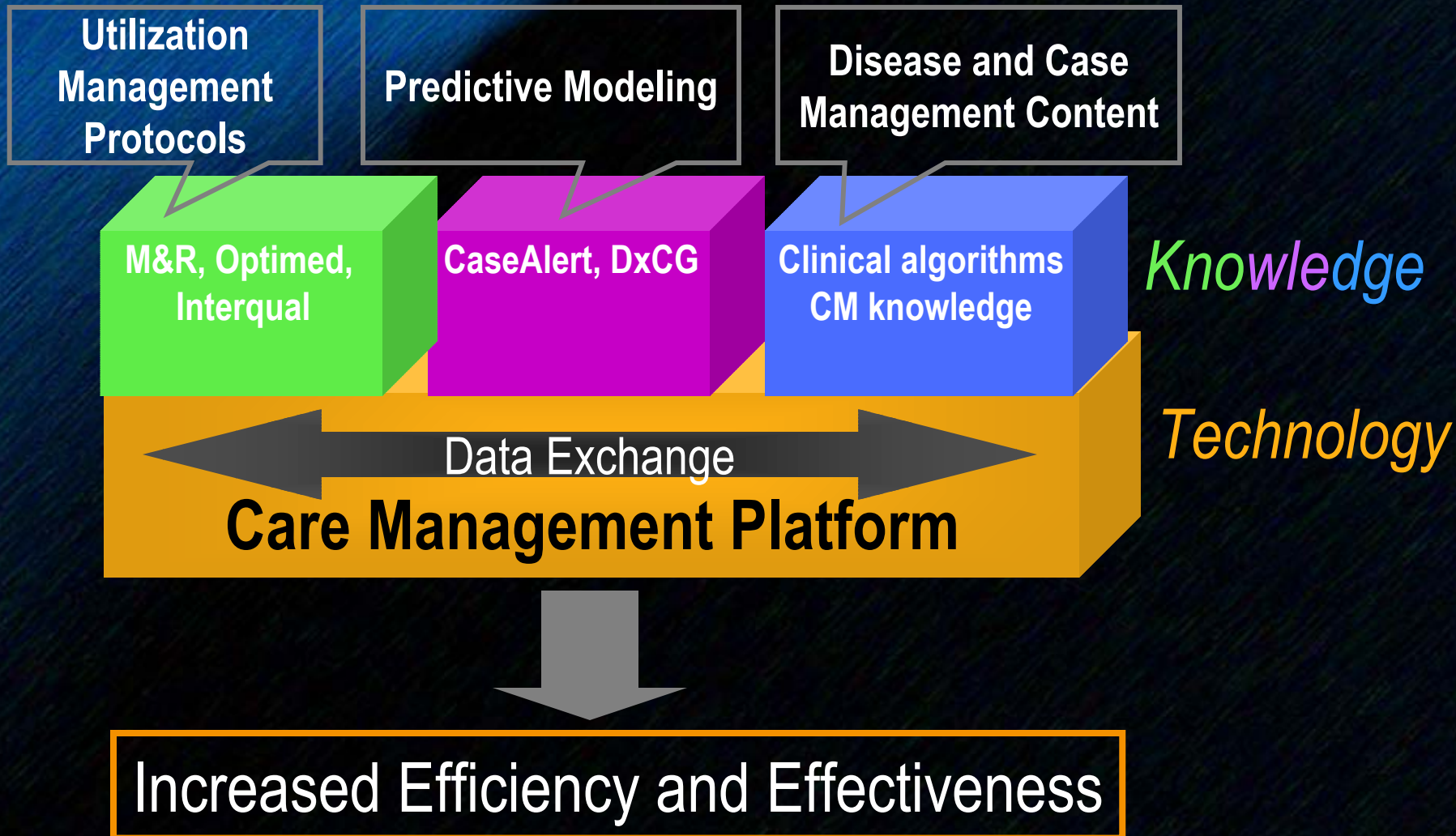
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Knowledge Embedded in Care Management Technology



What is DM “Clinical Content”?

The 5 Components

1. Care Manager workflow tools
2. Clinical best practices
 - Evidence-based medicine
 - Expert opinion
3. Care management processes (for providers and patients)
4. Reporting tools
 - To patients
 - To providers
5. Recommended outcomes metrics

Patient Identification and Primary Risk Stratification

Clinical Rules:

ID	EDF_DESCRIPTION	CM	OBS	RULE FREQ
21	DIABETES AND ACUTE MYOCARDIAL INFARCTION	2	365	3684
28	HIGH-RISK PATIENT WITH ALL OF THE FOLLOWING: DIABETES & HBP & ASCVD & HYPERLIPIDEMIA AND NO ADMISSIONS WITHIN LAST 12 MONTHS	2	365	3246
41	DIABETES WITH CHRONIC ISCHEMIC HEART DISEASE AND HYPERLIPIDEMIA ON NO LIPID-LOWERING MEDICATIONS	2	365	6983
42	DIABETES, HYPERTENSION, HYPERLIPIDEMIA AND OBESITY	2	365	995
91	DIABETES AND RECENT ACUTE MYOCARDIAL INFARCTION WITH ADMISSIONS	2	91	167

**CVD plus multiple risk factors:
no admissions**

**Diabetes and MI
within 91 days**

Diabetes, CVD, high lipids: no lipid lowering medications



New call

Case search

Patient search

Provider search

User preferences

Work queue report

Issue search

CarePlanner | MEDecision

[Help](#)|[How do I...?](#)|[Log out](#)

Work queue: CAD DM Prog/High Sev - CADH

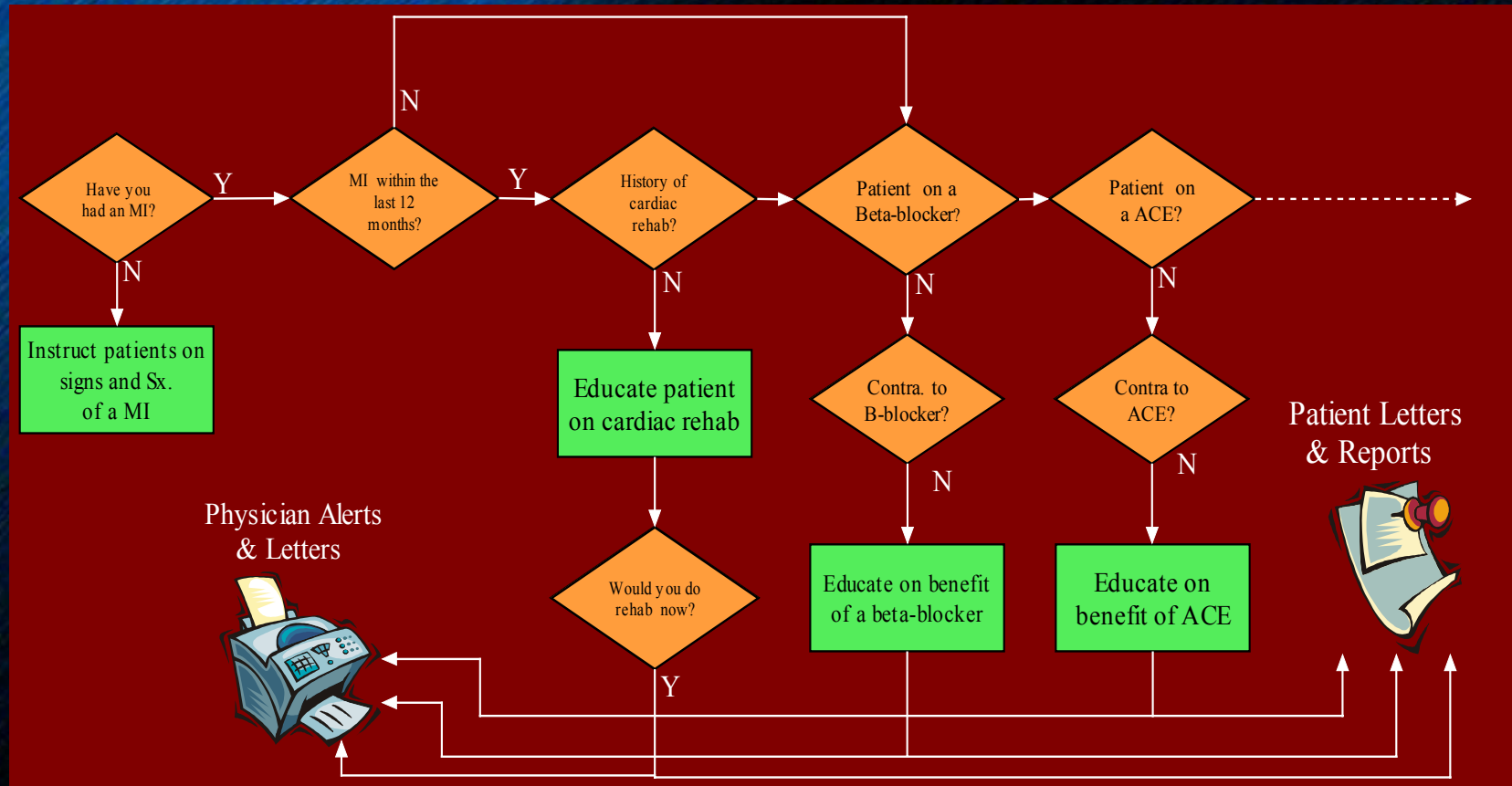
Through: 04/19/2004 Profile: Cases by due date/time GO

More functions: Go

Go to case Log new call Go to contacts View summary

	Due date & time	Priority	Receipts	Case/issue ID	Patient	Patient ID	Reason	Provider	Phone #	Tx setting
<input checked="" type="radio"/>	04/02/2004 11:59 PM	Normal		04079-0002	BARIS, ELMA	61547381400	CASEALERT IHD REFERRAL			Disease Manag
<input type="radio"/>	04/02/2004 11:59 PM	Normal		04079-0001	CAMPANY, PRISCILLA	6544277060	CASEALERT IHD REFERRAL			Disease Manag
<input type="radio"/>	04/03/2004 11:59 PM	Normal		04080-0010	CURBELO, MARTIN	33704388400	CASEALERT IHD REFERRAL			Disease Manag
<input type="radio"/>	04/03/2004 11:59 PM	Normal		04080-0009	WALLNER, LAURICE	30758397500	CASEALERT IHD REFERRAL			Disease Manag
<input type="radio"/>	04/03/2004 11:59 PM	Normal		04080-0008	MICHELSON, CORINA	33667856400	CASEALERT IHD REFERRAL			Disease Manag
<input type="radio"/>	04/03/2004 11:59 PM	Normal		04080-0007	FLYNT, CLAIRE	33674041500	CASEALERT IHD REFERRAL			Disease Manag
<input type="radio"/>	04/03/2004 11:59 PM	Normal		04080-0006	DRYER, DEMETRIUS	33473370500	CASEALERT IHD REFERRAL			Disease Manag
<input type="radio"/>	04/03/2004 11:59 PM	Normal		04080-0005	CAMBLE, FOSTER	3563515400	CASEALERT IHD REFERRAL			Disease Manag
<input type="radio"/>	04/03/2004 11:59 PM	Normal		04080-0004	MENNELLA, INOCENCIA	14354484000	CASEALERT IHD REFERRAL			Disease Manag
<input type="radio"/>	04/03/2004 11:59 PM	Normal		04080-0003	WHITEHEAD, FRANCINA	64571377000	CASEALERT IHD REFERRAL			Disease Manag
<input type="radio"/>	04/03/2004 11:59 PM	Normal		04080-0002	BALSON, LADONNA	61374516000	CASEALERT IHD REFERRAL			Disease Manag
<input type="radio"/>	04/03/2004 11:59 PM	Normal		04080-0001	SCHNEBLY, WOODROW	63355419	CASEALERT IHD REFERRAL			Disease Manag

Clinical “Branching Logic”





Questionnaire

Patient

Name: **BARIS,ELMA**

ID: **61547381400**

CAD DM/High

Sex: Female

DOB: 01/01/1952

Age: 52

LOB: POS

[Continue](#)

[Cancel](#)

1. Do you have heart disease?

2. Have you had a stroke?

2.A. Do you have any residual effects from your stroke?

2.B. Are you taking a anti-platelet medication?

2.C. (If yes) Did you have your stroke within the past 12 months?

3. Do you have TIA's?

3.A. (If yes) Is your physician aware that you are having TIA's?

3.B. Are you taking blood thinner medications such as aspirin or coumadin?

4. Have you had a heart attack?

4.A. (If yes) Have you made changes to prevent another MI?

4.B. How long ago was your heart attack?

4.C. Did you attend cardiac rehabilitation classes?

4.D. (If no) Would you consider cardiac rehabilitation now?

4.E. Are you taking a beta-blocker medication?

4.F. Are you taking an ACE-inhibitor medication?

[Help](#)

[help](#)

Yes

No

No

Yes

Yes

< 12 months

Yes

No

No

Questionnaire history

Patient

Name: **BARIS,ELMA**

ID: **61547381400**

CAD DM/High

Sex: Female

DOB: 01/01/1952

Age: 52

LOB: POS

Coronary Artery Disease Management Questionnaire

[Help](#) | [Print friendly](#)

Question	03/22/2004 (Baseline) (Incomplete)
1. Aware of heart disease diagnosis	help Yes
2. Stroke	No
3. TIA	No
4. MI	Yes
4.A. Risk modification	Yes
4.B. MI date	< 12 months
4.C. Cardiac rehab	Yes
4.E. Beta blocker post MI	No
4.F. ACE post MI	No
4.G. Antiplatelet post MI	help No
5. Angina	Yes
5.A. Nitroglycerine for angina	Yes
5.B. Angina changes	No
5.C. Beta blocker for angina	No
5.D. Antiplatelets for CAD	No
6. Angioplasty	No
7. Stent	No
8. CABG	No



Proposed plan of care | Case ID: 04079-0002

Patient

Name: [BARIS, ELMA](#) ID: **61547381400**
Sex: Female DOB: 01/01/1952 Age: 52 LOB: POS
Plan code: Client code: Mega Corporation
CAD DM/High

New problems identified by: Coronary Artery Disease Management Questionnaire

Select to open	Problem description	Question/answer
<input checked="" type="checkbox"/>	BMI > 26	BMI > 26 - Yes
<input checked="" type="checkbox"/>	Elevated cholesterol	Hypercholesterolemia - Yes
<input checked="" type="checkbox"/>	Hypertension	Hypertension - Yes
<input type="checkbox"/>	Knowledge deficit: Sign-symptoms TIA	TIA - No
<input type="checkbox"/>	Knowledge deficit: Sign-symptom stroke	Stroke - No
<input type="checkbox"/>	Knowledge deficit: stable angina	Angina - Yes
<input checked="" type="checkbox"/>	Patient does not exercise	Exercise - Patient does not exercise
<input checked="" type="checkbox"/>	Patient has diabetes	Diabetes - Yes
<input checked="" type="checkbox"/>	Patient has not had a PPV	Pneumococcal - No
<input checked="" type="checkbox"/>	Patient is status post-MI	MI - Yes
<input checked="" type="checkbox"/>	Pt has not seen physician in past 6 mos	Last appt. - >6 months
<input type="checkbox"/>	Pt pos for depress scrn-not conclusive	Depression - Life stressful or difficulty relaxing?
<input checked="" type="checkbox"/>	Waist circumference > 35 inches	Waist - Female: >35 inches

[Return to Nursing Plan](#)

Nursing plan of care

[Print friendly](#)

Patient

 Name: [BARIS, ELMA](#)

ID: 61547381400

Sex: Female

DOB: 01/01/1952

Age: 52

LOB: POS

Plan code:

Client code: Mega Corporation

CAD DM/High

Existing problem(s)

[View all](#) | [View open](#)

[Add a new problem](#)
[Assessment](#)
[Proposed plan of care](#)

	Problem & status	Goals	Interventions	Outcomes	Barriers	Target Date	Opened
<input checked="" type="radio"/>	Elevated cholesterol (Open-In Progress)	<ul style="list-style-type: none"> - Patient will discuss statin therapy with physician for LDL > 100 mg/dL - Patient will learn target LDL level: 100mg/dL - Patient will maintain LDL cholesterol below 100 	<ul style="list-style-type: none"> - Instruct patient on the efficacy of statins in reducing cholesterol with the addition of diet and exercise. - Instruct patient on the importance of cholesterol reduction to help reduce risk for heart attack and stroke. - Instruct patient on the significance of LDL cholesterol levels and the importance regular screening and learning LDL values 				03/22/2004
<input type="radio"/>	Patient is status post-MI						03/22/2004

 New call
  Case search
  Patient search
  Provider search
  User preferences
  Work queue report
  Issue search



[Help](#)|[How do I...?](#)|[Log out](#)

Work queue: Kristel Schimmoller - KSCHIMMO

Through: 04/21/2004 Profile: Cases by due date/time GO

More functions: Go

Go to case
Log new call
Go to contacts
View summary

	Due date & time	Priority	Receipts	Case/issue ID	Patient	Patient ID	Reason	Provider	Phone #
<input checked="" type="radio"/>	03/30/2004 09:00 AM	High/Red		04082-0002	THOMPSON, SALLY	020720021	Med Education & Counseling		
<input type="radio"/>	03/30/2004 02:30 PM	Mod/Yellow		04082-0005	HUMPHREY, MARIA	49430107001	Exercise Ed & Counseling		
<input type="radio"/>	03/31/2004 04:00 PM	Mod/Yellow		04082-0001	REESE, SHELLY	48938702401	FOLLOW-UP ASSESSMENT		
<input type="radio"/>	04/01/2004 01:00 PM	Low/Green		04082-0004	BARNEY, NATALIE	28618813101	Diet Education & Counseling		
<input type="radio"/>	04/02/2004 11:00 AM	Mod/Yellow		04082-0003	FISHER, AMBER	33028216701	CALL PROVIDER - CARE PLAN DISCUSSION		

The “Help” Function

“The main treatment goal for survivors of an MI is to prevent a recurrent MI. Patients who recently had an MI should be strongly encouraged to enroll in cardiac rehabilitation. In all patients, the first step to preventing another MI is to develop a plan to modify lifestyle-related risk factors. **Patients should quit smoking, lose weight if necessary, exercise regularly, follow a diet that is high in fiber and low in fat, and manage stress.**”

“All patients who have suffered a heart attack should be started on daily **aspirin therapy** unless contraindicated or intolerable. In addition, the American Heart Association (AHA) guidelines recommend that all post-MI patients receive **beta blockers and ACE inhibitors** to help reduce the workload of the heart following the myocardial injury unless contraindicated. ACE inhibitors are particularly important in decreased myocardial function following an MI to reduce the risk for developing heart failure. Both ACE-inhibitors and beta blockers should be continued indefinitely.

“Finally, because of documented efficacy in preventing a recurrent heart attack, the AHA recommends all **patients with elevated LDL-cholesterol levels (>100mg/dl) should be given lipid-lowering therapy** with an HMG CoA-reductase inhibitor, also known as a statin.”

Letters, Action Plans, and Reports

- Targeted at patients
 - Health risk assessments
 - Educational materials
 - Ask-your-doctor guides
- Targeted at providers
 - Program participation notices
 - Alerts and prompts
- Program level outcomes reports

The Best Care Management Programs

- Have talented, well-trained care managers
- Have state-of-the art care management knowledge and processes
- Imbed their knowledge in technology to:
 - Increase program efficiency
 - Provide easy access to care management knowledge
 - Increase ROI of DM programs
 - Enhance the ability to analyze data and improve program intervention
 - More effectively communicate with patients and providers

What Will be a Killer App?

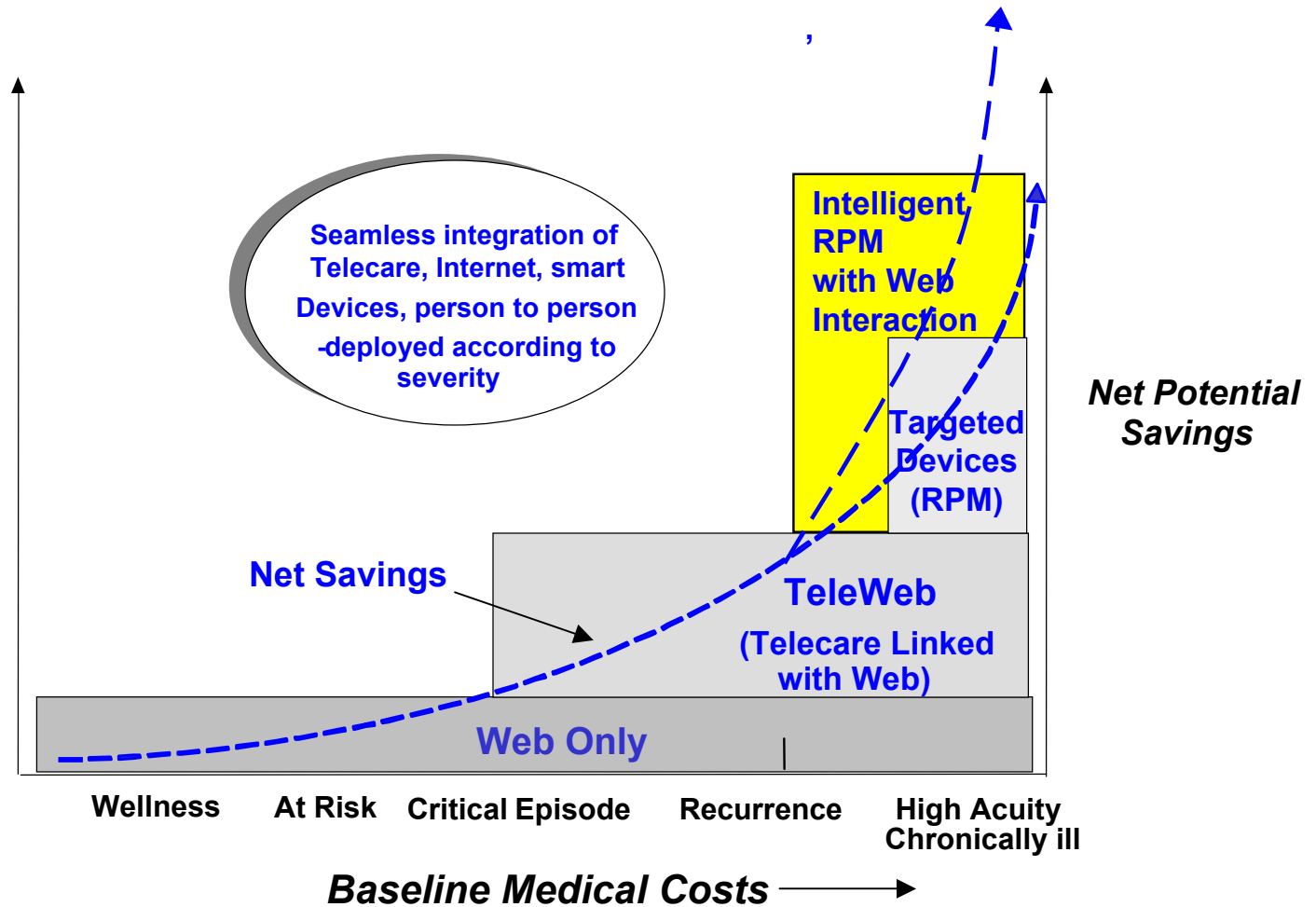
- We don't really know yet?
- Technology market is very fragmented
- Cost and capital is still a major issues
- Remember Betamax!

Nonetheless, we believe that EMRs, E-prescribing, web-based tools, RPM, and care management platforms are the most likely “winners”

Forces Driving Technology Adoption

- The need to improve patient safety
- Aging of the population: need to managed multiple co-morbidities
- Spiraling healthcare costs
- Consumer adoption of Internet tools/technologies
- Employer-driven consumer models
- Increased physician acceptance of technology
- **Growth of Disease Management programs**

Technology and Disease Management





Discussion