

Healthcare Information Technology

{ ...patient's deserve the highest quality care

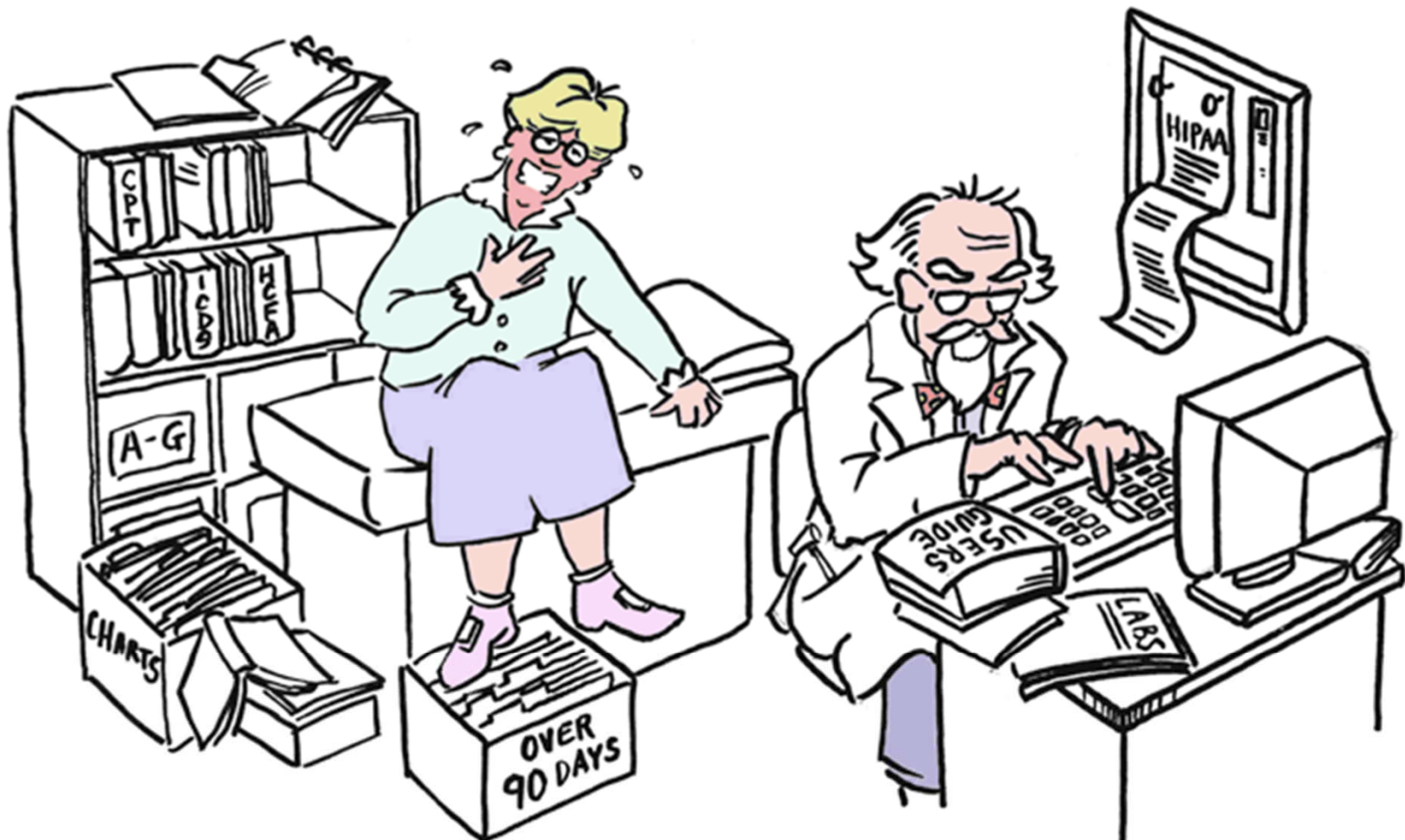
Dr. Jim Morrow
Morrow Family Medicine
Cumming, Georgia

Being Proactive

Skate to where the puck is going,
not to where it is.

Wayne Gretsky

Yes, yes Mrs. Jones... we'll talk about your chest pain in a minute! Right now, I'm trying to remember my password.



To this...

<p>Weston R Black 06/23/2004 3:19 PM Location: NFFM - Cumming Patient ID: TESTER DOB: 05/25/1969 Divorced/ Swahili/ Hispanic Male</p>
<p>History of Present Illness (Vicki Dummett; 06/23/2004 5:20 PM) Patient's words: cough x 3 days</p> <p>The patient is a 35 year old male who presents for a follow up visit for MRI OF LUMBAR SPINE (72148).</p> <p>Additional complaint:</p> <p><u>Cough</u> The onset of the cough has been acute and has been occurring in a persistent pattern for 3 days. The course has been increasing. The cough is characterized as dry. The amount of sputum produced is scanty. The cough occurs mainly at night. The symptoms are aggravated by supine posture. The symptoms have been associated with headache, hoarseness, runny nose, sore throat and wheezing, while the symptoms have not been associated with chest pain, fever or hemoptysis.</p>
<p>Allergies (Vicki Dummett; 06/23/2004 3:30 PM) Keflex. Anaphylaxis Penicillins. Angioedema, Anaphylaxis</p>
<p>Past Medical History (Vicki Dummett; 06/23/2004 4:25 PM) Mastectomy, Total</p>
<p>Family History (Vicki Dummett; 06/23/2004 3:31 PM) Father. CAD older sister. NIDDM</p>
<p>Previous Next Change Close Email... Print...</p>

And from this...

MEDICAL CENTER HOSPITAL
DEPT. OF MEDICINE ODESSA, TEXAS

Langley, Ramon AGE _____
11/11/1951 DATE _____

Zerdil 20mg # 12
20mg P.O. Q6hr

Ferron sulfate 300mg # _____

Or this...

Arundin 4 m p.d. cl

What Is e-Prescribing?



Process by which physicians use a computer to enter, modify, review and communicate drug prescriptions

Why e-Prescribe?

- ▶ 4 out of 5 patients who visit a physician leave with at least one prescription
- ▶ 65% of the U.S. population (91% of Medicare patients) use a prescription medication each year
- ▶ Over 4 billion prescriptions are dispensed each year

Why e-Prescribe?

Prescribing process is error prone

Adverse drug events (ADE)

- 4th leading cause of death
- Costs as much as \$136 billion each year

7,000 deaths a year attributed to prescription error

- Illegible handwriting
- Wrong dosage
- Missed drug-drug or drug-allergy interactions

Medication errors account for 1 out of 131 ambulatory care deaths

Interoperability

Receive reports

securely

electronically

legibly, and

much more quickly from area hospitals.

Current State of Prescribing

Poor compliance

Approximately 20% of prescriptions are never filled

Cost of poor compliance estimated between \$100 billion and \$150 billion annually

Benefits for Physicians

Prescription History

History ⚠️ 📧 < > ▾ Current Encounter

History Previous Medications My Short Lists Short Lists Search Free Text Fill History

History

- Problem List/Past Medical History
- Allergy
- Immunization
- Family
- Social
 - Travel
- Medication**
- Pregnancy/Birth
- Past Surgical
- Diagnostic Studies
- Health Maintenance
- Other Past History

Include | Explore

Medication	Last Written	Last Filled
+ PROMETHAZINE 25 MG TABLET 25 MG	02/10/2012	02/10/2012
✓ AVELOX 400 MG TABLET 400 MG	01/03/2012	01/03/2012
✓ TEGRETOL XR, 200MG (Oral Tablet Extended Release 12 Hour) [CARBAMAZEPINE]	03/14/2012	03/14/2012
✓ KLONOPIN, 1MG (Oral Tablet) [CLONAZEPAM 1 MG TABLET 1 MG]	03/14/2012	03/14/2012
✓ MYCELEX, 10MG (Mouth/Throat Troche) [CLOTRIMAZOLE 10 MG TROCHE 10 M...]	01/06/2012	01/06/2012
✓ DEMECLOCYCLINE 150 MG TABLET 150 MG	03/27/2012	03/27/2012
✓ PROLIXIN, 1MG (PO Tab) [FLUPHENAZINE 1 MG TABLET 1 MG]	03/14/2012	03/14/2012
✓ SYNTHROID, 50MCG (Oral Tablet) [LEVOTHYROXINE 50 MCG TABLET 50 MCG]	01/30/2012	02/29/2012
✓ METRONIDAZOLE 500 MG TABLET 500 MG	01/03/2012	01/03/2012
✓ MORPHINE SULE ER 60 MG TABLET 60 MG	02/14/2012	02/14/2012

DISCLAIMER: Prescription history may not be complete due to over-the-counter medications, low cost prescriptions, prescriptions paid for by the patient, nonparticipating sources, or errors in insurance claims information. The provider should independently verify medication history with the patient.
















Current Encounter

✖️ ✎️ ⬆️ ⬇️ Note... ⚠️ Interactions Clear

Benefits for Physicians

Fill History

Medications Filled

-  PROMETHAZINE 25 MG TABLET 25 MG
-  AVELOX 400 MG TABLET 400 MG
-  **TEGRETOL XR, 200MG (Oral Tablet Extended Release 12 Hour) [CARBA...**
-  KLONOPIN, 1MG (Oral Tablet) [CLONAZEPAM 1 MG TABLET 1 MG]
-  MYCELEX, 10MG (Mouth/Throat Troche) [CLOTRIMAZOLE 10 MG TROCH...
-  DEMECLOCYCLINE 150 MG TABLET 150 MG
-  PROLIXIN, 1MG (PO Tab) [FLUPHENAZINE 1 MG TABLET 1 MG]
-  SYNTHROID, 50MCG (Oral Tablet) [LEVOTHYROXINE 50 MCG TABLET 50...
-  METRONIDAZOLE 500 MG TABLET 500 MG
-  MORPHINE SULF ER 60 MG TABLET 60 MG
-  MORPHINE SULFATE IR 30 MG TAB 30 MG
-  OXYBUTYNIN 5 MG TABLET 5 MG
-  TEMAZEPAM 22.5 MG CAPSULE 22.5 MG
-  TERAZOSIN 1 MG CAPSULE 1 MG
-  TRAZODONE 150 MG TABLET 150 MG

Fill History Details

Expand View

Date Written	Date Filled	Quantity	Days Supply
03/14/2012	03/14/2012	150	30
02/13/2012	02/13/2012	150	30
01/11/2012	01/11/2012	150	30

The IOM Reports

40,000 to 98,000 Americans die yearly
from preventable medical errors in
hospitals


Equivalent to a jumbo jet crash every day

Medical errors cause more deaths than
MVAs, breast cancer and AIDS

North Fulton Family Medicine, P.C. - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www.afsecure.net/index.asp> Go Search Web AutoFill Optik



North
Fulton Family
Medicine

North Fulton Family Medicine, P.C.

Thursday, April 14, 2005
Welcome, Jmorrow

My Health Portfolio

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Select range: Year(s)

Profile/Panel/Test	Value	Units	Range
PSA, TOTAL	Collect: 1/31/2005 10:48:00 AM		
PSA, TOTAL	1.1	NG/ML	< OR = 4.0
TRIGLYCERIDES	Collect: 2/13/2004 9:07:00 AM		
TRIGLYCERIDES	135	MG/DL	<150
CHOLESTEROL, TOTAL	Collect: 2/13/2004 9:07:00 AM		
CHOLESTEROL, TOTAL	174	MG/DL	<200
HDL CHOLESTEROL	Collect: 2/13/2004 9:07:00 AM		
HDL CHOLESTEROL	39	MG/DL	> OR = 40
LDL-CHOLESTEROL	Collect: 2/13/2004 9:07:00 AM		
LDL-CHOLESTEROL	108	MG/DL (CALC)	<130
CHOL/HDL-C RATIO	Collect: 2/13/2004 9:07:00 AM		
CHOL/HDL-C RATIO	4.5	(CALC)	<5.0
COMPREHENSIVE METABOLIC PANEL	Collect: 2/13/2004 9:07:00 AM		
GLUCOSE	83	MG/DL	65-109
UREA NITROGEN (BUN)	19	MG/DL	7-25
CREATININE	1.3	MG/DL	0.5-1.4
BUN/CREATININE RATIO	15	(CALC)	6-25
SODIUM	140	MMOL/L	135-146
POTASSIUM	5.0	MMOL/L	3.5-5.3

Done

Start HIMSS/RHIO - Microsoft... Adobe Reader - [05325... North Fulton Family ... Microsoft PowerPoint - [...]

Internet 6:44 AM

Clinical Module - Messages

Session Charts Office Patient Explore Options Tools Launch Help

Web Message

Delete Face Sheet... Pull Chart Save to Chart Reply... Reassign... Print

To: Morrow, James R M.D.
Sent: 8/17/2006 12:37 PM
Patient: Heap, Stuart
Phone: (678) 455-7609
Patient ID: 044038
Prof. Caregiver: James R. Morrow M.D.
Birth Date: 11/15/1948
Subject: cholestrol levels
Message Type: Message

Hyperlipidemic in England





Jim, just had my cholestrol checked on the 6 minute device I told you about

TC	149
HDL	48
TRG	71
LDL	86
non-HDL	100
TC/HDL	3.1
GLU	90

Office M
Lipitor works

20

Encounter Details

 Collapse View  Print  Email...  Note...

Diabetic in Dubai

Re:

Caregiver: Morrow, James R M.D.

Patient:

Sent: 3/16/2005 10:11 AM

> From:

> Sent: 3/13/2005 7:34 AM

>

Yes--have them call 011-965-635-8989--

-----Original Message-----

Date: 03/08/2005 11:27

From: Morrow, James R M.D.

Subject: Re:

Does the cell with the 965 area code work there? I found it. Glad about the foot. Thanks.

> From:

> Sent: 3/8/2005 11:25 AM

>

My cell number in 0119656358989--remember, there is a 8 hour time difference--you just add 8 hours to your time.

My foot is already feeling better--I started taking a gugulipid supplement from the health store as well--

-----Original Message-----

Date: 03/02/2005 11:44

From: Morrow, James R M.D.

Subject:

Bob, your sugar was way high, The change in meds is likely to help a lot. The numbness in the foot might very well be d level.

Go from this...

The screenshot shows a 'Web Message' window with a blue title bar. The window contains a toolbar with 'Send', 'Save to Chart', and 'High Priority' options. Below the toolbar are input fields for 'To...', 'Subject', 'Patient ID', 'Pref. Caregiver', and 'Birth Date'. A 'Note' section contains a rich text editor with a toolbar and the text 'z x z'.

Web Message

Send Save to Chart High Priority

To...

Subject:

Patient ID:

Pref. Caregiver:

Birth Date:

Note:

z x z

To this...

Web Message

Send Save to Chart High Priority

To...

Subject:

Patient ID:

Pref. Caregiver:

Birth Date:

Note:

All of the labs from your recent visit are normal. No problems are identified. Frequently there are minor abnormalities that are not of any clinical significance. These do not impact poorly on your health. If you are concerned about these minor abnormalities, I would encourage you to schedule an appointment to discuss them. If you have concerns in the future please contact us.

You can view the lab results by clicking on the "Lab Results" icon on the left side of the screen. Don't be alarmed if you do not understand the meaning of the tests, but they are there for you if another medical professional should need to access them.



North Fulton Family Medicine, P.C.

11/5/2006 7:49 AM
Welcome, jmorrow

Health Portfolio

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Patient: [REDACTED]

[Inbox](#)[Sent Items](#)[Saved Items](#)

You have 1 messages.

[Compose](#) [Check All](#) [Clear All](#)

	From:	Subject:	Sent:
<input type="checkbox"/>	James R Morrow, M.D.		9/22/2006 7:36:27 AM

11/5/2006 7:51 AM
Welcome, jmorrow

To request refill, please select medications and press the Request button.

Patient:

Medication Refills

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Medications:

- BIOHIST LA, 12-120MG (PO Tab SR 12HR)
- PROVIGIL, 200MG (PO Tab)

Pharmacy:

Lakeside Pharmacy, 1100 Northside Forsyth Drive, Cummin

Comments:

11/5/2006 7:52 AM
Welcome, jmorrow

[Review lab results](#)

Patient:

Range: 6 Month(s)

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Expand All Results

[Profile/Panel/Test](#)

.-COMPREHENSIVE METABOLIC

10/10/2006 12:00:00 AM

Profile/Panel/Test	Value	Unit	Normal Range
UREA NITROGEN (BUN)	23	mg/dL	7-25
CREATININE	1.2	mg/dL	0.5-1.4
BUN/CREATININE RATIO	19	(calc)	6-25
SODIUM	142	mmol/L	135-146
POTASSIUM	4.8	mmol/L	3.5-5.3
CHLORIDE	106	mmol/L	98-110
CARBON DIOXIDE	28	mmol/L	21-33
CALCIUM	9.3	mg/dL	8.5-10.4
PROTEIN, TOTAL	6.5	g/dL	6.0-8.3
ALBUMIN	4.3	g/dL	3.5-4.9
GLOBULIN	2.2	g/dL (calc)	2.2-4.2
ALBUMIN/GLOBULIN RATIO	2.0	(calc)	0.8-2.0
BILIRUBIN, TOTAL	0.5	mg/dL	0.2-1.5
ALKALINE PHOSPHATASE	71	U/L	20-125
AST	26	U/L	3-50
ALT	32	U/L	3-60
GLUCOSE	101	mg/dL	65-99

Comment:

FASTING REFERENCE INTERVAL

GFR ESTIMATED

>60

mL/min/1.73m2

> OR = 60

Comment:

IF THE PATIENT IS AFRICAN-AMERICAN, PLEASE MULTIPLY THIS RESULT BY 1.21. THIS RESULT HAS BEEN CALCULATED ASSUMING THE PATIENT IS NON-AFRICAN AMERICAN.

TRIGLYCERIDES

10/10/2006 12:00:00 AM

Vital Signs

11/5/2006 7:53 AM
Welcome, jmorrow

[Review vital signs data](#)

Patient:

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Date	Temp °F	Pulse per min.	Resp. per min.	BP mm Hg	Weight	Height
10/21/2005 08:13 AM		80	12	160/90		
08/10/2004 03:49 PM	98	80	14	120/82	228.0 lb	6' 1"

Connected

Edit Transcription

File Edit Navigation Caregiver

Icons: Home, New, Save, Print, Undo, Redo, Copy, Paste, Checkmark, X, Home, Bold, Italic, Underline, List, ABC

Patient: [Redacted] Status: Submitted
Date of Birth: [Redacted] Dictated: 04/04/2005
Transcribed: 04/04/2005

Index | Comment | General

CT SCAN OF THE CHEST WITH CONTRAST 04/04/05

I do not have any comparison studies.

CLINICAL HISTORY- Chest swelling and mass.

TECHNIQUE- Transaxial images are obtained through chest. The patient received 95 cc of intravenous nonionic contrast material without complications. The risks, benefits and alternative of the contrast media were discussed with the patient after which informed consent was signed. The patient was given an opportunity to ask questions.

FINDINGS- Imaging of the mediastinum fails to show any evidence of significant adenopathy. Heart, pericardium, great vessels and esophagus all appear normal. Both hila appear normal.

Imaging of the lung parenchyma show at least three nonspecific small nodules on the right. The first is in the right upper lobe peripherally and measures 5.2 mm. The second is in the right lower lobe superior segment peripherally 6.0 mm and the third is in the right middle lobe anteriorly abutting the pleura measuring 5.9 mm. All of these appear to be noncalcified. Malignancy cannot be excluded. Close interval follow-up or PET scan may be helpful. There is no evidence of pleural effusion. There is some mild atelectasis in both lower lobes posteriorly.

Tracking Tests & Procedures

Ability to monitor practice compliance

Search for labs not yet resulted or reviewed

Search for procedures not yet resulted or reviewed

Limiting Access-Securing PHI

Data is secured...

Three levels of passwords necessary
to access the data

Passwords change regularly

Never a pre-determined password

Firewall/Antivirus/Backup

What Does All This HIT Do
For Us and Our Patients?

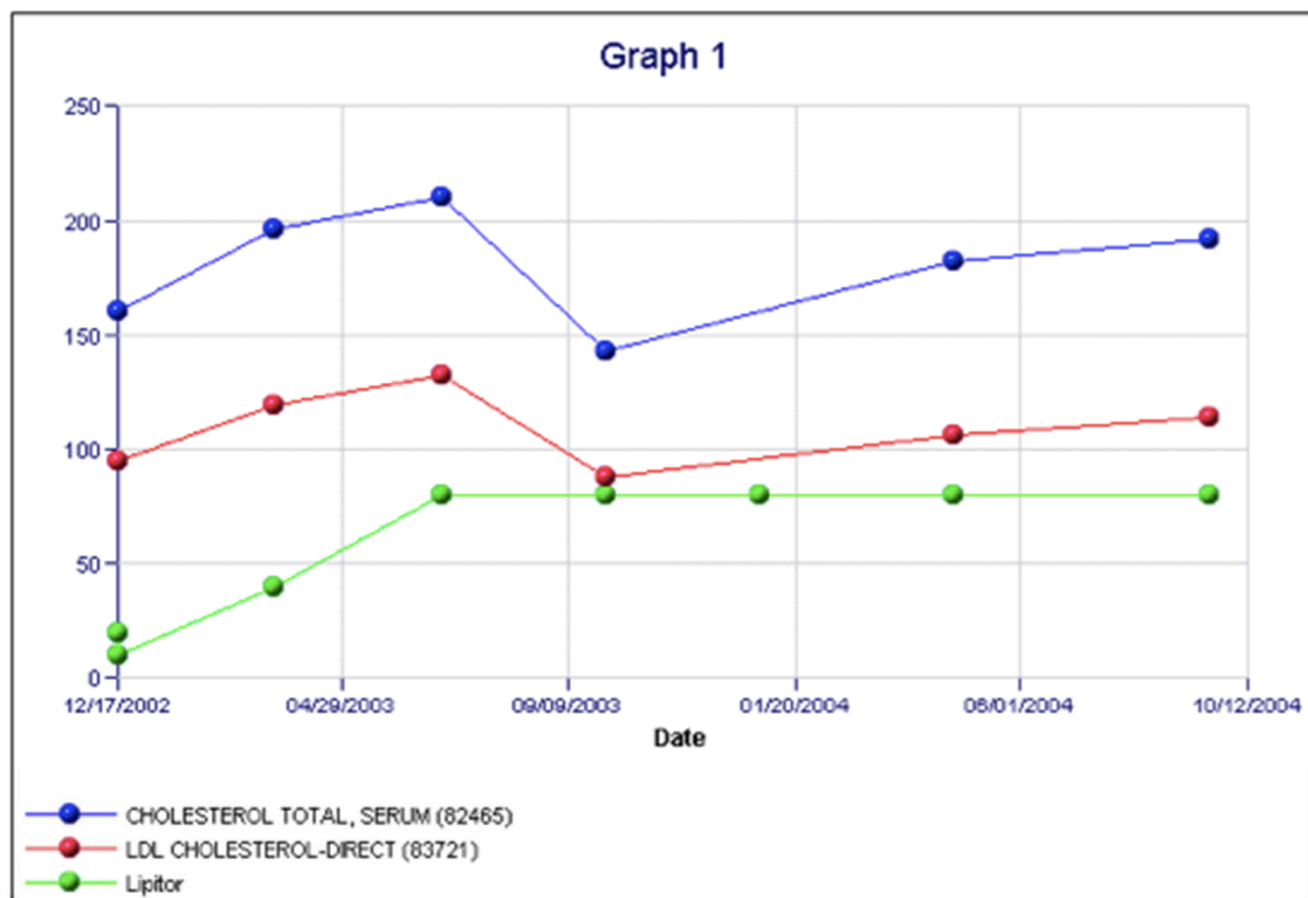
Outcomes Are The Real Rewards

We can track quality of care at an outcomes level

Track A1c's, LFT's, PT's, PSA's, cholesterol,
blood pressure levels

Monitor compliance rates of routine
screenings (colonoscopy, mammography,
bone density, exercise stress testing, etc)

Visual Reinforcement



So, What's the Holdup?

Physician Perspectives: Recent Data

Physician Attitudes

84% agree that computers improve quality

78% think computers have beneficial effect
on interactions within the health care team

Physician Perspectives: Attitudes vs. Intentions

85% believe we should computerize prescriptions, yet 49% do not intend to

89% believe we should computerize patient summaries, yet 48.5% do not intend to

83% believe we should computerize treatment records, yet 48.7% do not intend to

Top Reasons for Disconnect

Initial capital cost

Time investment

Security concerns

Maintenance costs

Biggest Reason for Disconnect

People Are Reluctant to

CHANGE!

The Hard Truth

The time has come

No more choices in the near future

Patients deserve the best care they can get

They get better care with HIT in place

Conclusion

Success depends on you

The evolution of IT and healthcare is upon us now

The return on your investment can be measured in real dollars

The ultimate ROI is job satisfaction, a sense of accomplishment, and success in today's changing world

Healthcare Information Technology

{ ...patient's deserve the highest quality care

Dr. Jim Morrow
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