We Live In The Same House, But Do We Talk?

Presented by Jill Mason
Chief Nursing Officer
July 22, 2011

Blessing Hospital
ANCC Magnet Recognition

About Blessing

367 Bed Community Health System

2,000 Employees

240+ Physicians

Affiliates include:

- Illini Community Hospital (critical access hospital)
- Community Outreach Clinic
- Denman Medical Equipment
- Denman Biomedical
- Quincy Health Care Management
- Blessing Physician Services

Schools of Nursing, Radiology and Laboratory

IT Clinical Systems

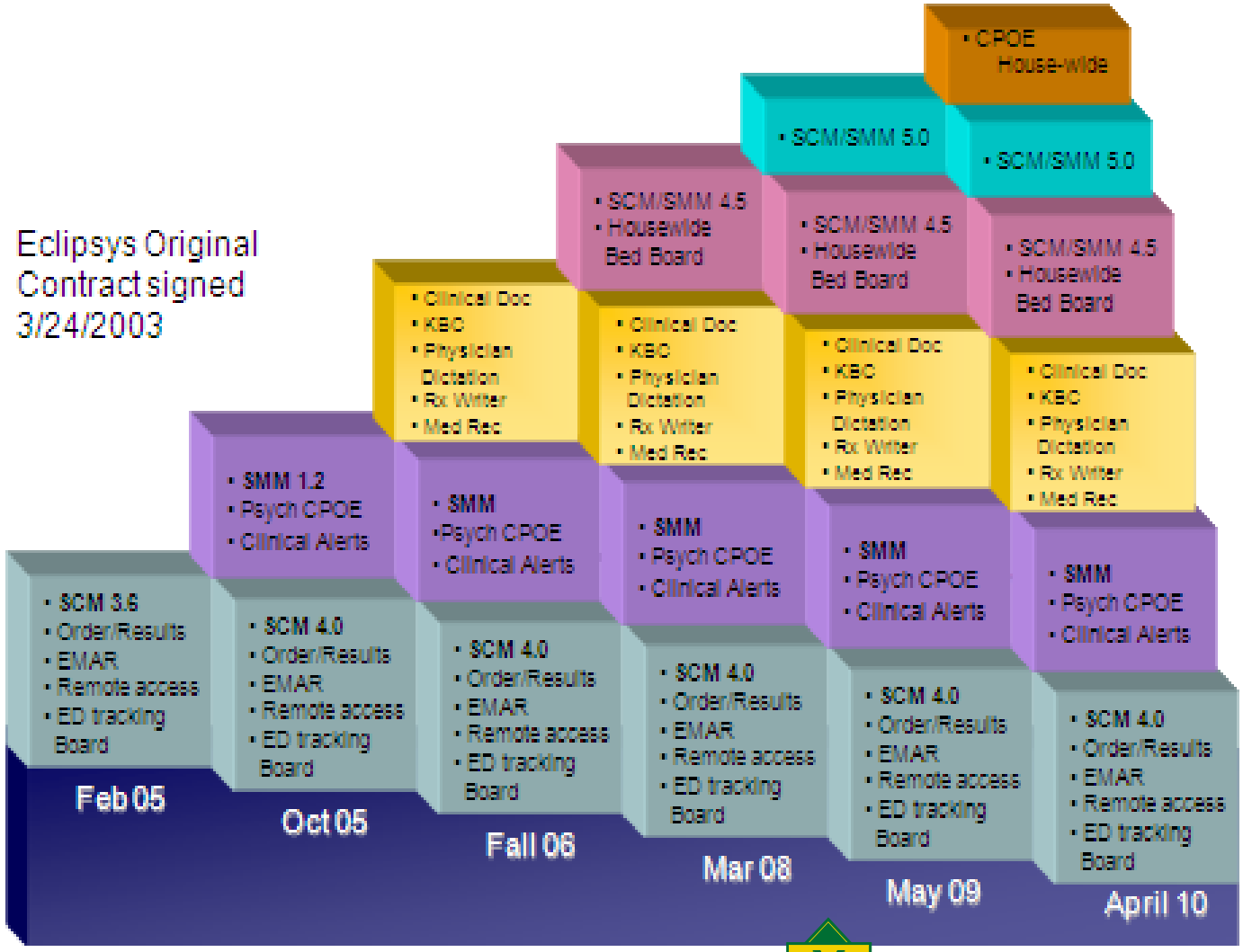
Allscripts
- Sunrise Clinical Manager
- Sunrise Emergency Care
- Sunrise Medication Manager
- Sunrise Clinical Analytics
- Sunrise Disease Manager
- Enterprise Person Identifier
- Knowledge-Based Transcription
- KBC & Clinical Documentation
- CPOE housewide
- eLink
- Allscripts Ambulatory
- Sunrise XA 5.5
- Rothman Index

In Process (not all inclusive):

Allscripts
- Order Reconciliation & KBMA
- Sunrise Patient Access, Scheduling Financial Manager & Record Manager

***McKesson**
- Healthquest Patient Management
- Patient Accounting
- Medical Records
- Pharmacy Robot & AcuDose Cabinets
- Patient Scheduling & Compliance
- Horizon Surgery Manager
- Pathways HomeCare & Hospice

Other Vendors
- PACS/ScImage Image Distribution
- Sunquest & CoPath Lab
- Peritronics OB documentation system
- Phillips EKG system
- Apollo Cardiology Systems
- Cloverleaf Interface Manager
- Remote Access via Citrix
- ACTION O-I (Solucient)
- AtStaff Acuity/Staff Scheduling
- IMPAC Radiation Oncology
- Telemetry


Eclipsys Original Contract signed 3/24/2003
• SCM 3.6
• Order/Results
• EMAR
• Remote access
• ED tracking Board
Feb 05
• SMM 1.2
• Psych CPOE
• Clinical Alerts
• SCM 4.0
• Order/Results
• EMAR
• Remote access
• ED tracking Board
Oct 05
• Clinical Doc
• KBC
• Physician Dictation
• Rx Writer
• Med Rec
• SMM
• Psych CPOE
• Clinical Alerts
• SCM 4.0
• Order/Results
• EMAR
• Remote access
• ED tracking Board
Fall 06
• SCM/SMM 4.5
• Housewide Bed Board
• Clinical Doc
• KBC
• Physician Dictation
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• Med Rec
• SMM
• Psych CPOE
• Clinical Alerts
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Mar 08
• SCM/SMM 5.0
• SCM/SMM 4.5
• Housewide Bed Board
• Clinical Doc
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• Physician Dictation
• Rx Writer
• Med Rec
• SMM
• Psych CPOE
• Clinical Alerts
• SCM 4.0
• Order/Results
• EMAR
• Remote access
• ED tracking Board
May 09
• CPOE House-wide
• SCM/SMM 5.0
• SCM/SMM 4.5
• Housewide Bed Board
• Clinical Doc
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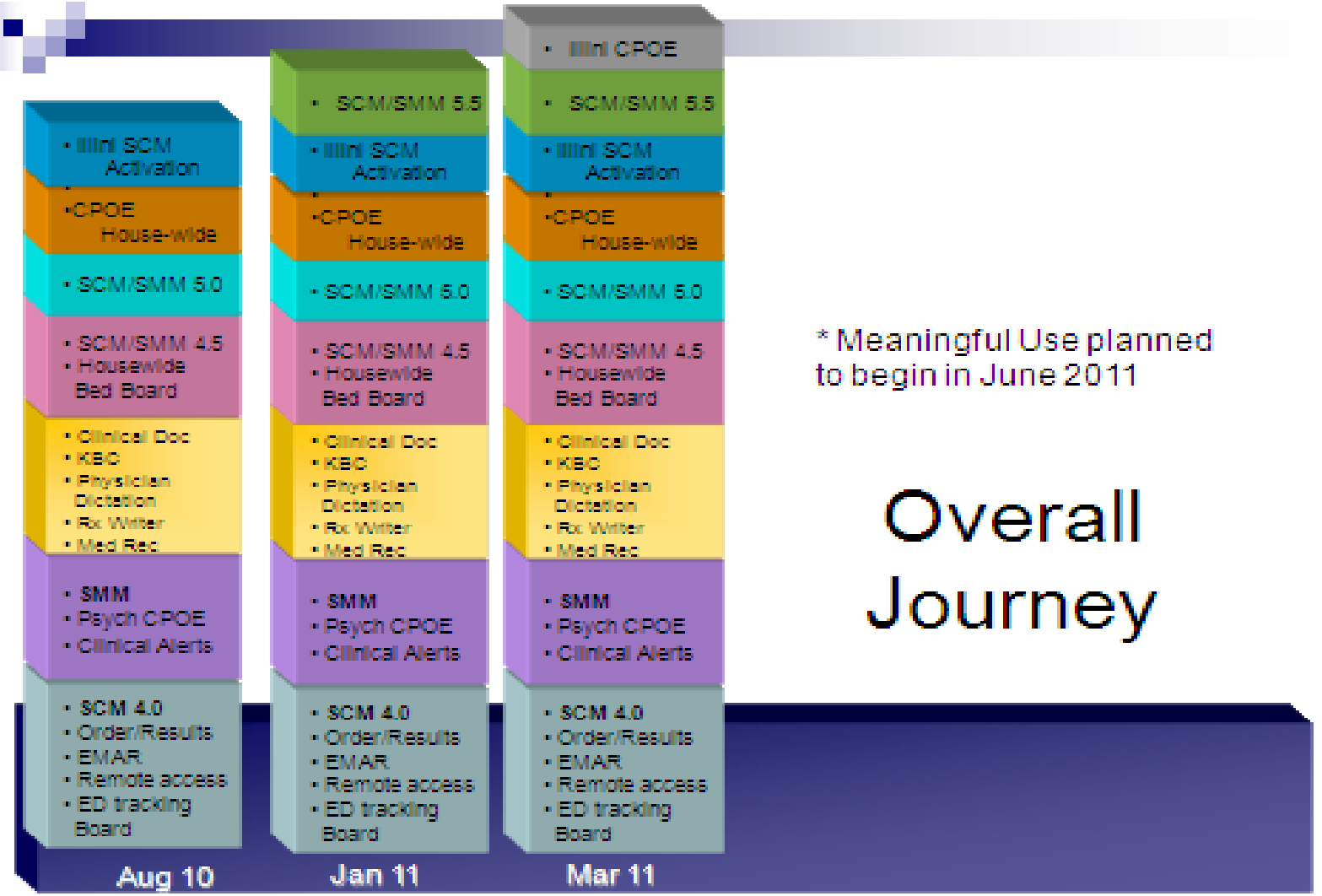
• EMAR
• Remote access
• ED tracking Board
April 10



* Meaningful Use planned to begin in June 2011

Overall Journey

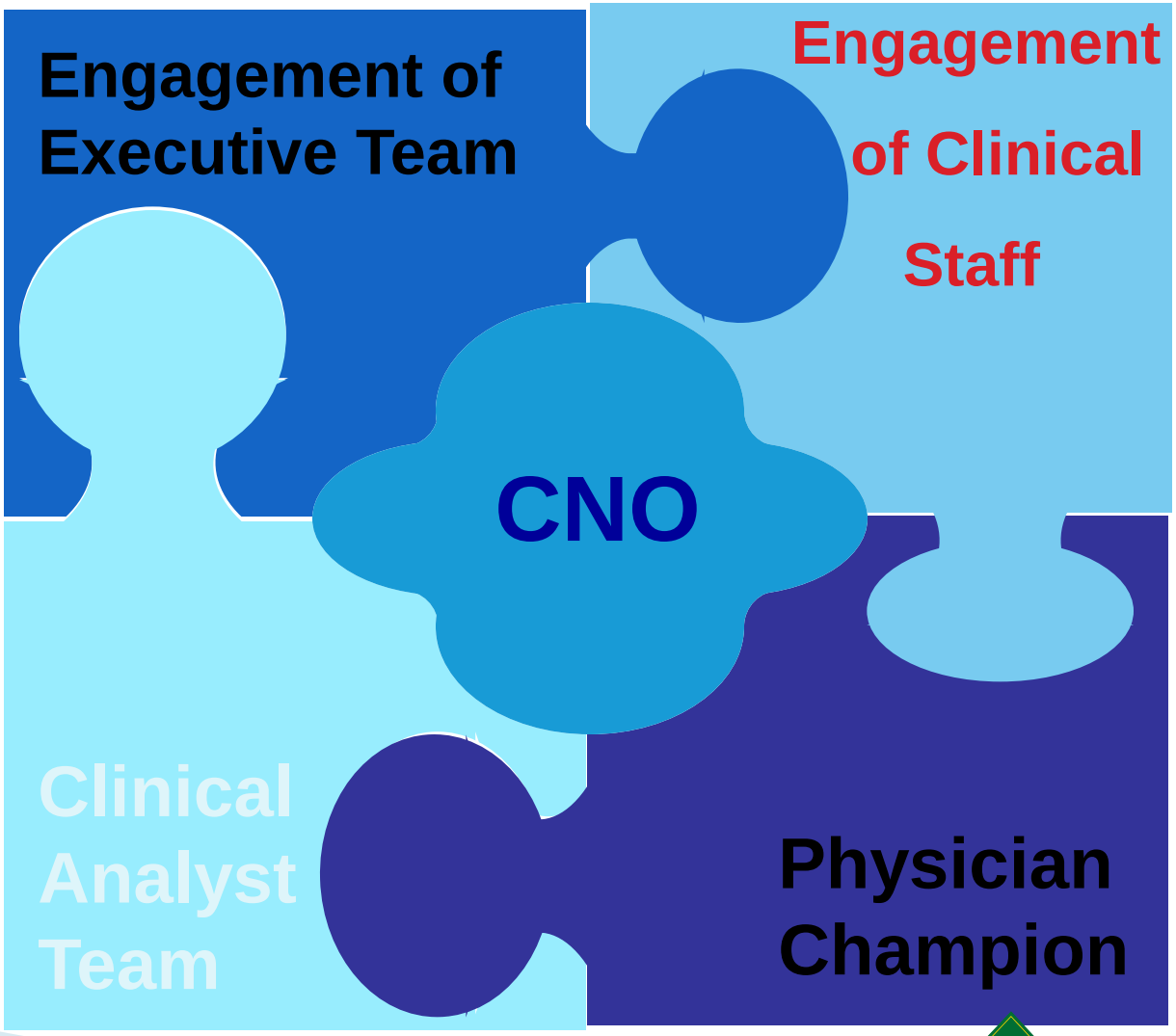
Vision Aligned With Our Projects

- Provider of Choice
  - Improved quality focus with evidence based practice
- Employer of Choice
  - Improved customer service
- Partner of Choice
  - Reduction in clinical practice variation
  - Increased Physician satisfaction

Leadership Philosophy

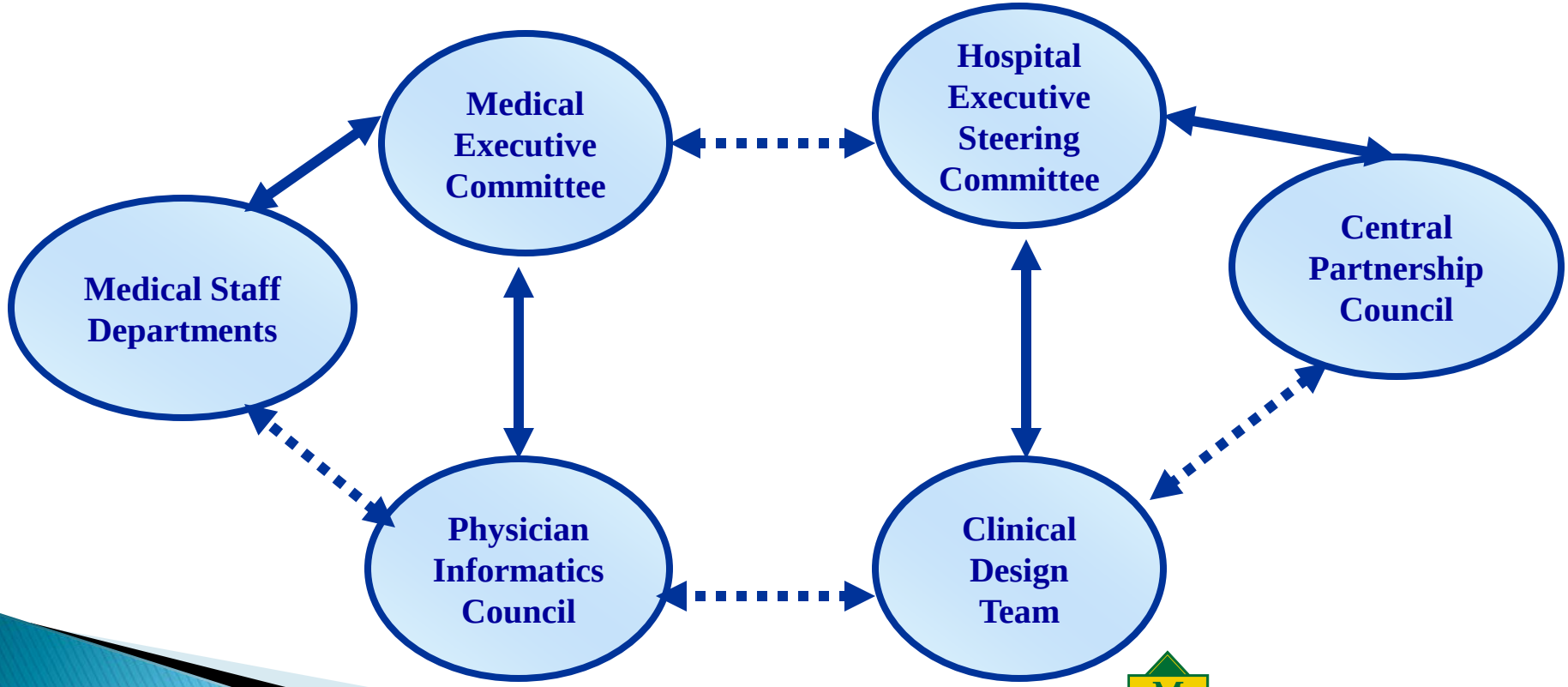
- Mission, Vision and values aligned with project
- Three primary goals
  - Improved quality with focus on
    - Patient Safety
    - Evidenced-Based practice
    - Outcome Management
  - Improved financial performance
    - Reduction in clinical practice variation
    - Reduction in clinical resource utilization
    - Improve data capture *(revenue cycle)*
  - Improved customer service *(value added physician service)*
    - Patient
    - Staff
    - Physician

Five Keys to Success

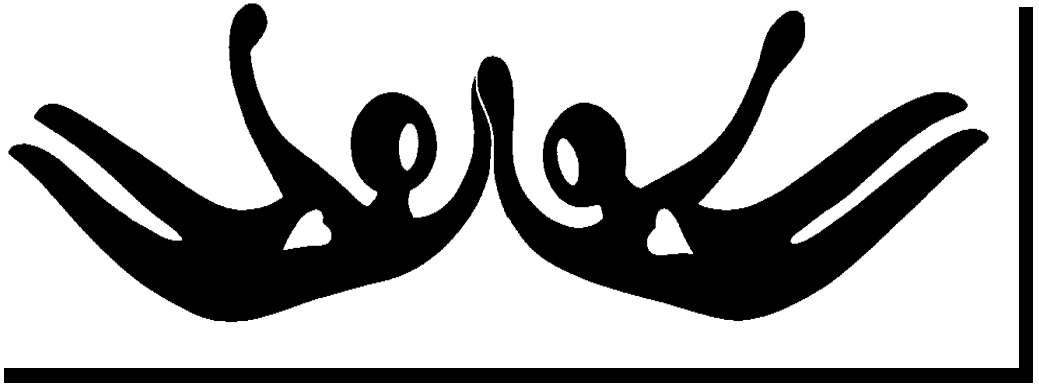


Integrating Workflow

Content and Adoption Council Structure

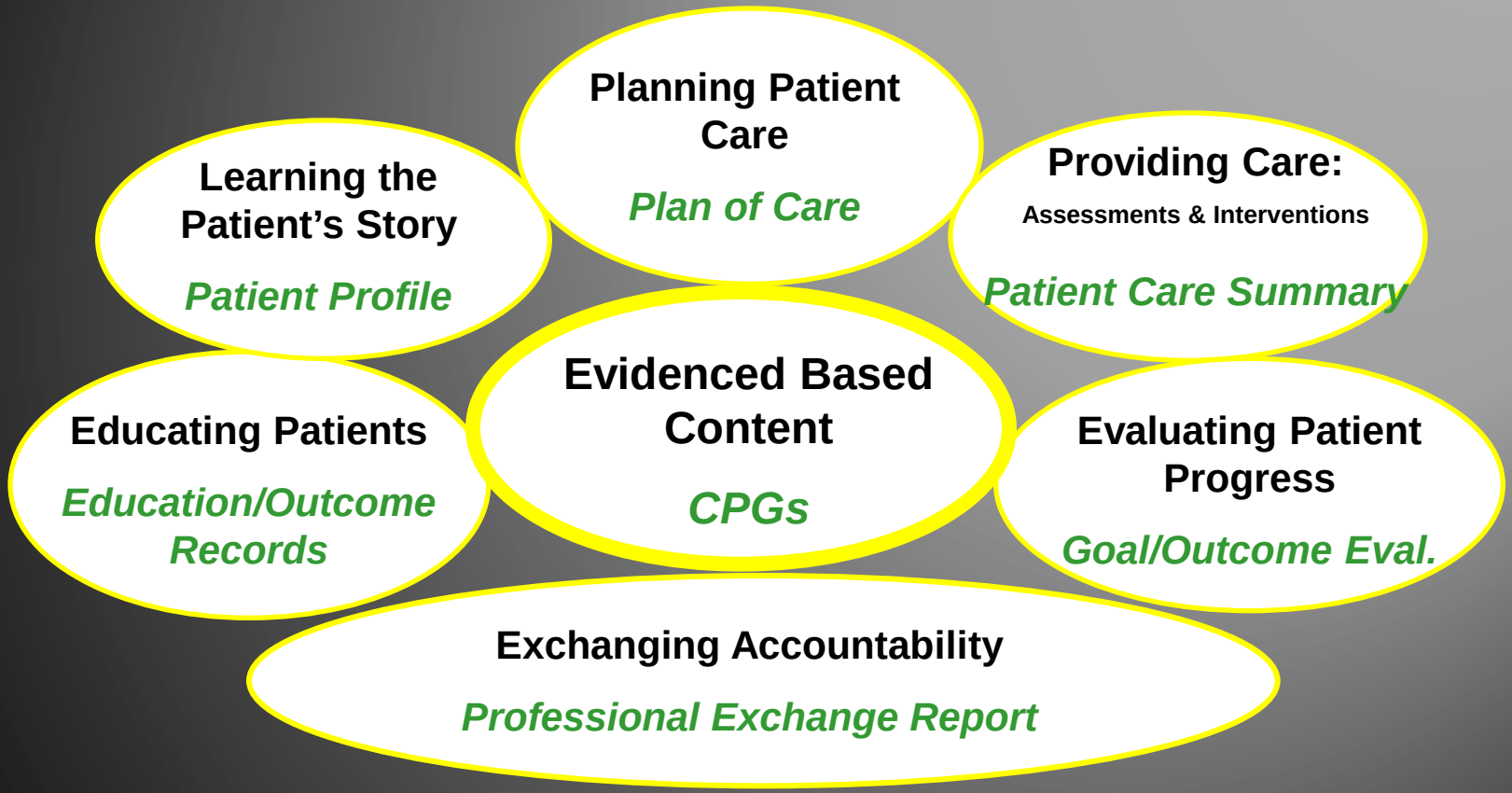


Principles of Partnership



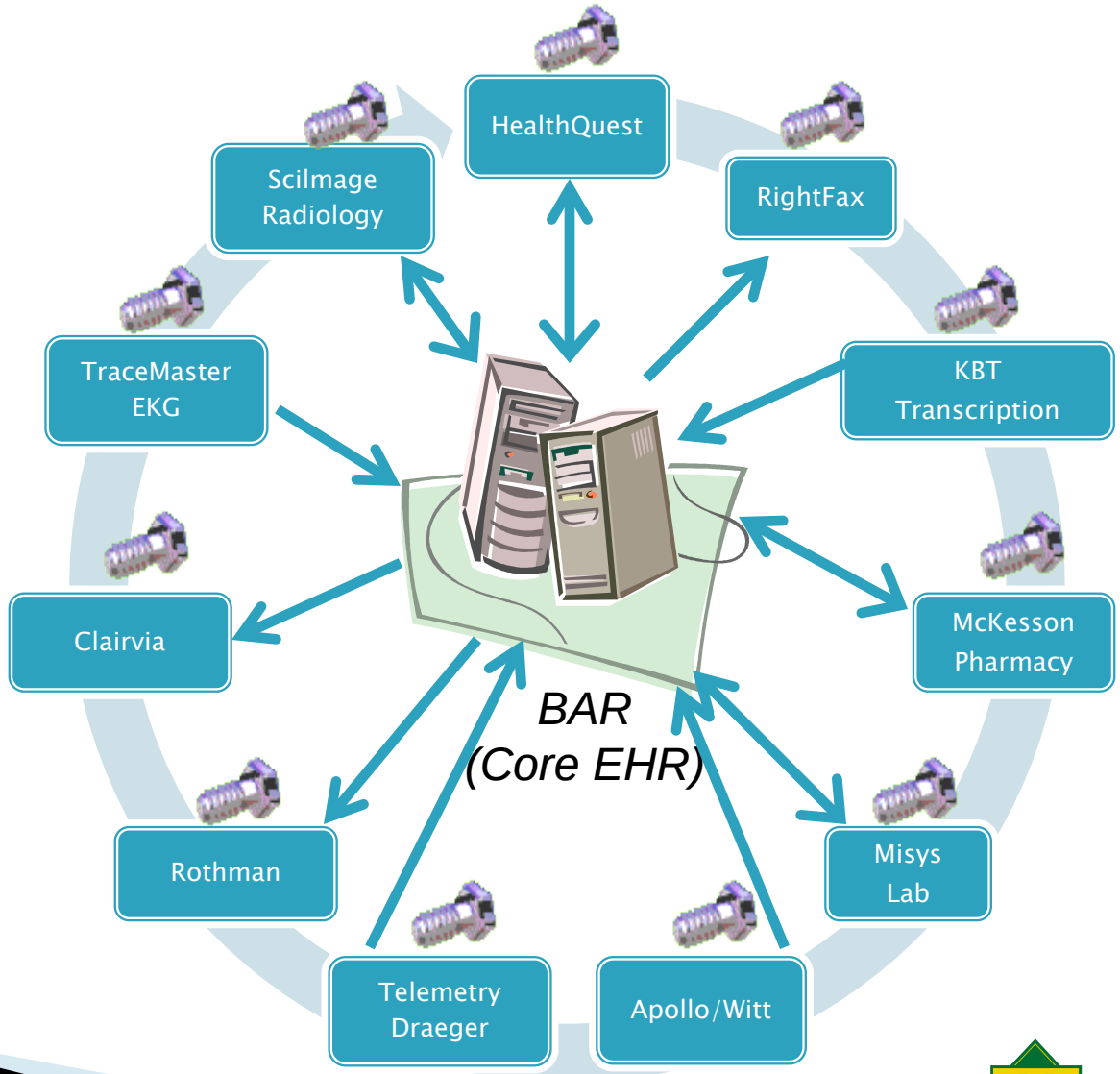
Intention
Mission
Equal Accountability
Potential
Balance
Trust

Documenting the Process of Interdisciplinary Integration



Scope of Practice

SCM 4.5 Production Environment



Clairvia

BAR
(Core EHR)

Staffing and Acuity

Supply of Nurses

- Staff Manager: Live May 2006, interfaced to HR and Time and Attendance

Demand of Patients

- Demand Manager measures need for nursing care hourly uses patient data from Registration and Sunrise Clinical Manager

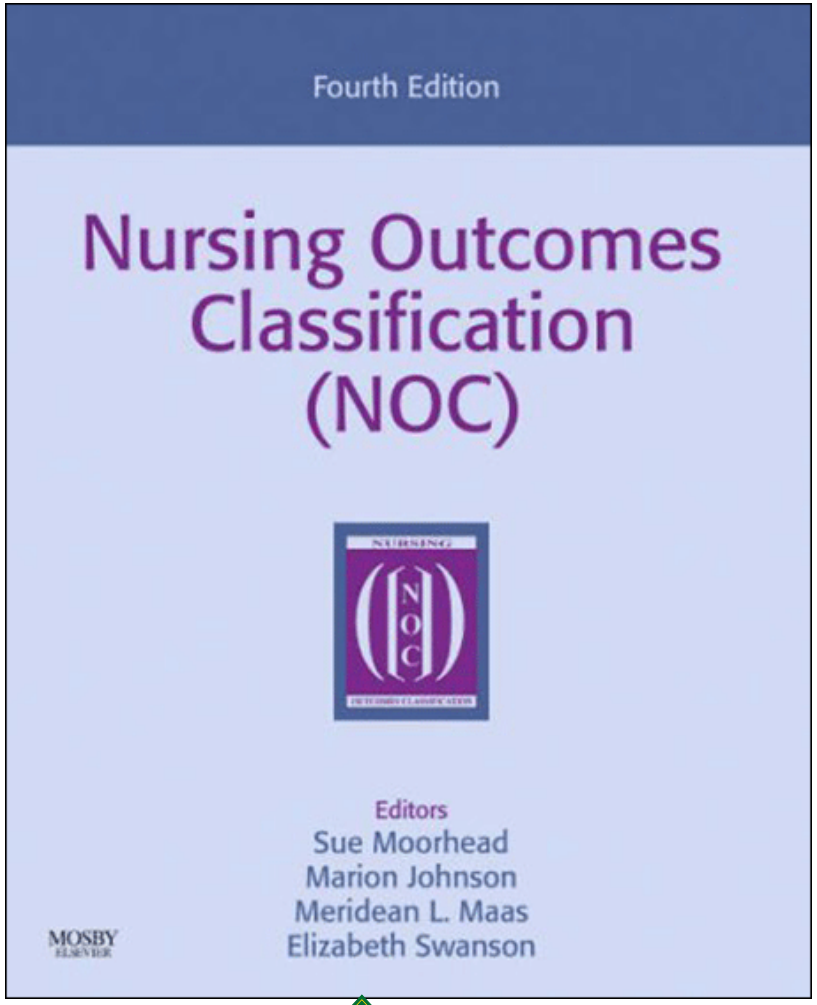
- **Outcomes Driven Acuity**
  - 7 Adult Med/Surg units live since July 2009
  - Psychiatry, Pediatrics, and Behavioral Health

Standardized Outcomes

Outcomes: Patient outcomes sensitive to nursing interventions.

Nursing Outcome: An individual, family, or community state, behavior, or perception that is measured along a continuum in response to nursing intervention(s).

> 20 years of clinical and scientific testing at The University of Iowa



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Nursing Outcomes Classification

- Data catalog file for adults contained over 175,000 line items
- Original mapped catalog items – 8,620
- Current mapped catalog items – 11,047

Nursing Outcomes Classification

Outcome Rating Scale

Likert Scale

1	2	3	4	5
Severe deviation	Substantial deviation	Moderate deviation	Mild deviation	No deviation

Least Desirable

Most Desirable

This·report·is·used·to·validate·the·mapping·of·clinical·documentation·values·to·Likert·scores·at·the·outcome·level.·Nurses·use·it·to·evaluate·the·relationship·between·the·outcome·rating·and·the·clinical·documentation·values·received·by·patient.·In·the·example·below,·the·outcome·"Discomfort·Level"·received·a·Likert·rating·of·1·based·on·receiving·data·on·two·indicators·from·clinical·documentation—pain·management·and·pain·rating.·¶

Clinical Documentation Assessment by Patient

11/22/2010 14:45

JANE DOE: 0123456789
11/22/2010 12:26 - CVIUC
Percent Complete: 89%

Discomfort Level: 1

Age in Hours	Indicator Name	Indicator Score	Indicator Rank	Observation	Observation Value	Observation Score
12.43	2109 - Pain Management	5	5	Pain: Presence	denies pain/discomfort	5
9.93	2109 - Pain rating	1	1	Pain Intervention Number Scale	9	1

Kidney Function: 1

Age in Hours	Indicator Name	Indicator Score	Indicator Rank	Observation	Observation Value	Observation Score
16.43	0504 - Dialysis	2	2	Voiding Characteristics	patient on peritoneal dialysis	2
16.43	0504 - Fluid Management	3	5	Fluid Management	intravenous fluids adjusted	3
20.43	0504 - GU Assessment	1	1	Voiding Characteristics	anuria	1

Nutritional Status: Food & Fluid Intake: 2

Age in Hours	Indicator Name	Indicator Score	Indicator Rank	Observation	Observation Value	Observation Score
16.43	1008 - Diet	2	2	Diet/Nutrition Prescription	NPO	2
16.43	1008 - Nutritional Risk	1	5	Functional Screen Current Level: Swallowing	difficulty swallowing foods	1

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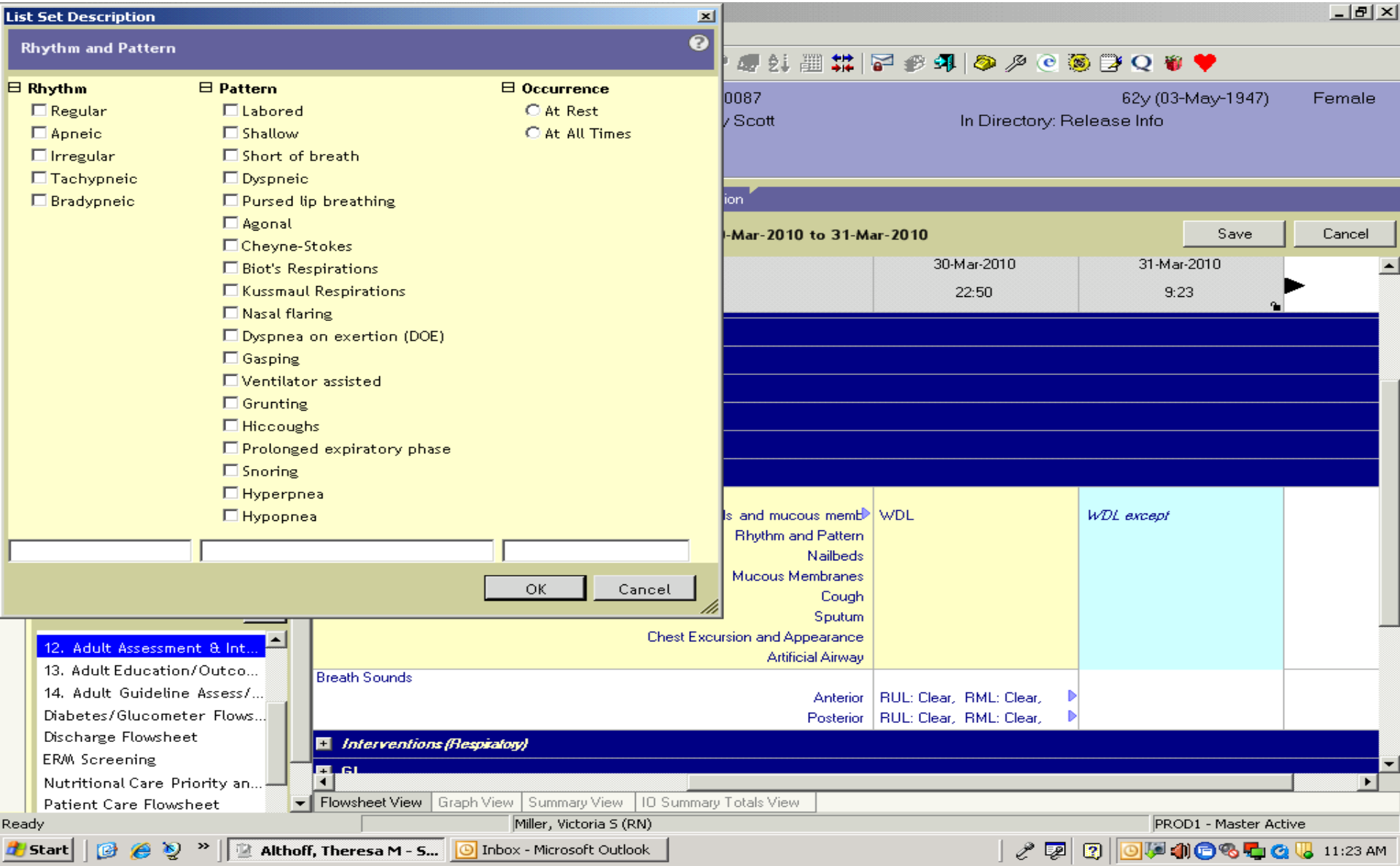
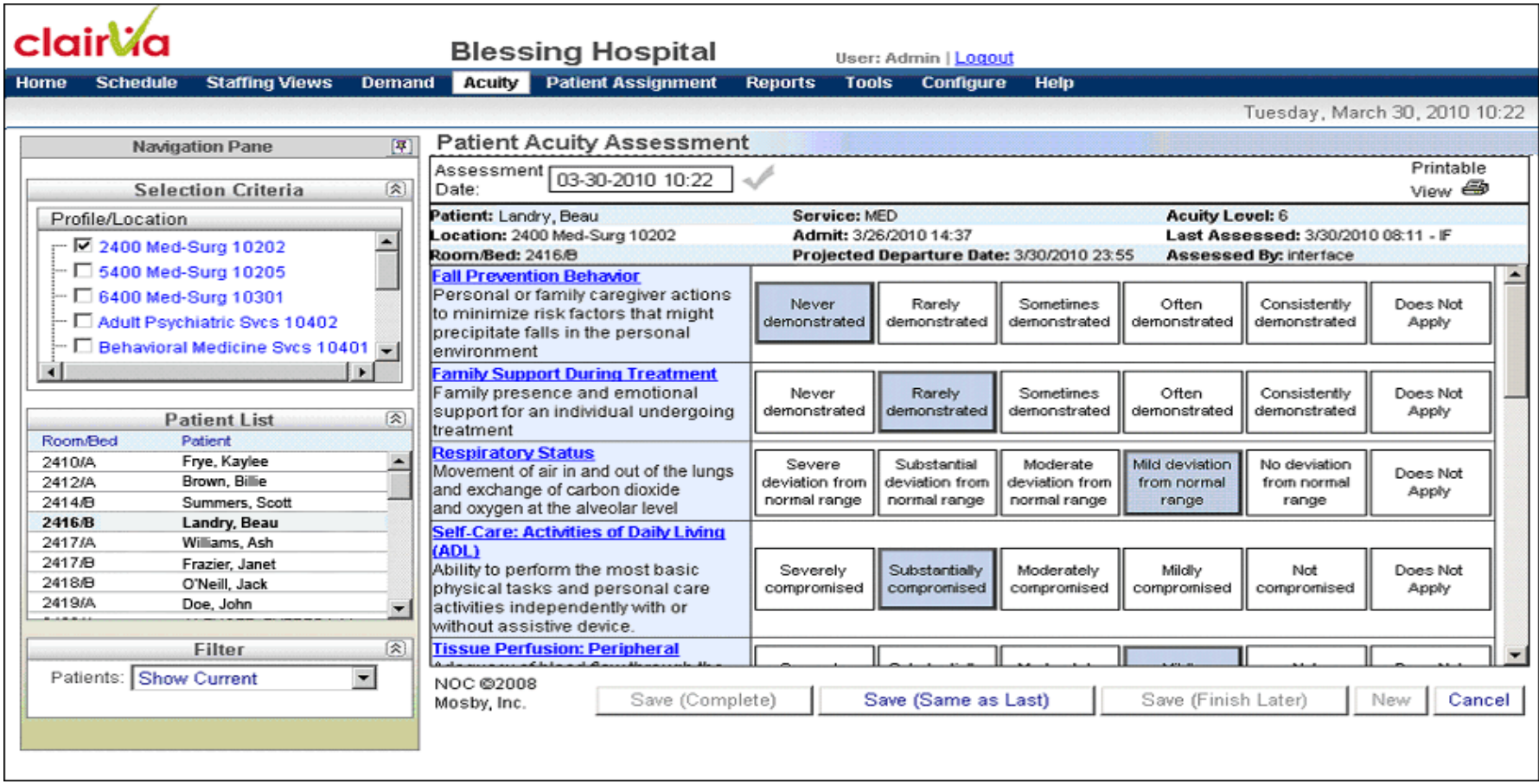
Clinical Charting



Documentation Translated into an Outcomes Assessment



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Assessment Status

- Clinical Documentation is interfaced every 4 hours.
- Patients are assigned a unit default score at admission.
- Values are pushed forward 28 hours if not replaced by new documentation.
- 75% of Outcomes must be scored to create a completed assessment

Assessment Status

clairvia

Blessing Hospital

User: Admin | Logout

Home | Schedule | Staffing Views | Demand | Acuity | Patient Assignment | Reports | Tools | Configure | Help

Tuesday, March 30, 2010 10:19

Navigation Pane

Patient Acuity Assessment Status

Acuity Summary

1	2	3	4	5	6	7	8	9	10	--
0	0	4	15	10	4	0	0	0	0	3

Clindoc Printable View

Hx	Print / All	Room/ Bed	Patient		Acuity	Modified By	Assessment DateTime	Location	Status
		2410/A	Frye, Kaylee		4	interface	3/30/2010 08:32	2400 Med-Surg 10202	C
		2414/B	Brown, Billie			interface	3/30/2010 08:21	2400 Med-Surg 10202	I
		2422/A	Summers, Scott		4	interface	3/30/2010 08:14	2400 Med-Surg 10202	C
		2441/B	Williams, Ash		5	interface	3/30/2010 08:24	2400 Med-Surg 10202	C
		2418/B	Landry, Beau		6	interface	3/30/2010 08:13	2400 Med-Surg 10202	C
		2417/B	Frazier, Janet		4	interface	3/30/2010 08:34	2400 Med-Surg 10202	C
		2424/B	O'Neill, Jack			interface	3/30/2010 08:15	2400 Med-Surg 10202	I
		2428/A	Doe, John		4	interface	3/30/2010 08:33	2400 Med-Surg 10202	C
		2431/B	Carter, Samantha		6	interface	3/30/2010 08:38	2400 Med-Surg 10202	C
		2440/B	White, Louise		3	interface	3/30/2010 08:25	2400 Med-Surg 10202	C
		2425/B	Stephens, Dennis		4	interface	3/30/2010 08:32	2400 Med-Surg 10202	C
		2429/A	Tanner, Jenny		5	interface	3/30/2010 08:01	2400 Med-Surg 10202	C

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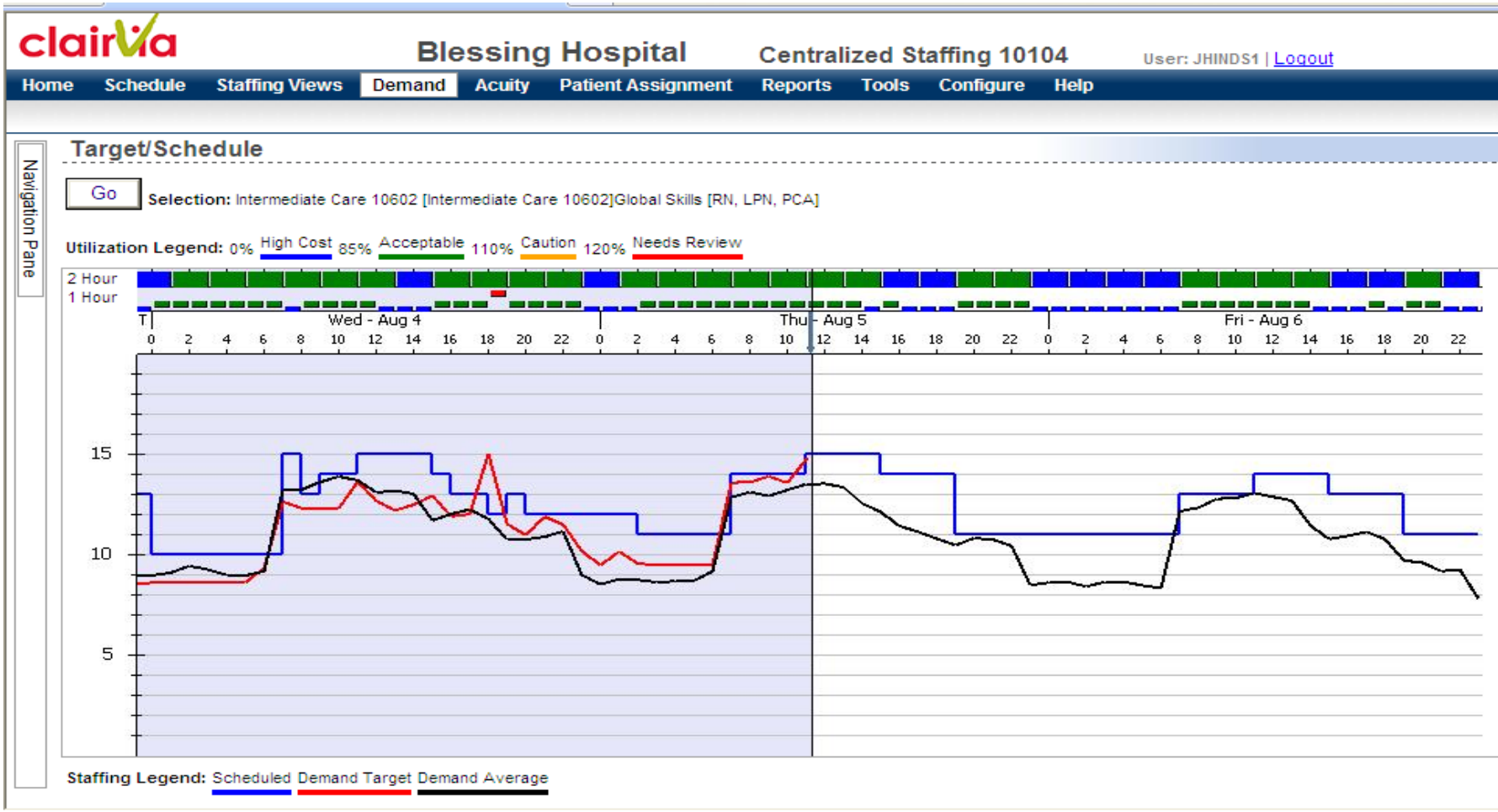
Acuity Driven Staffing



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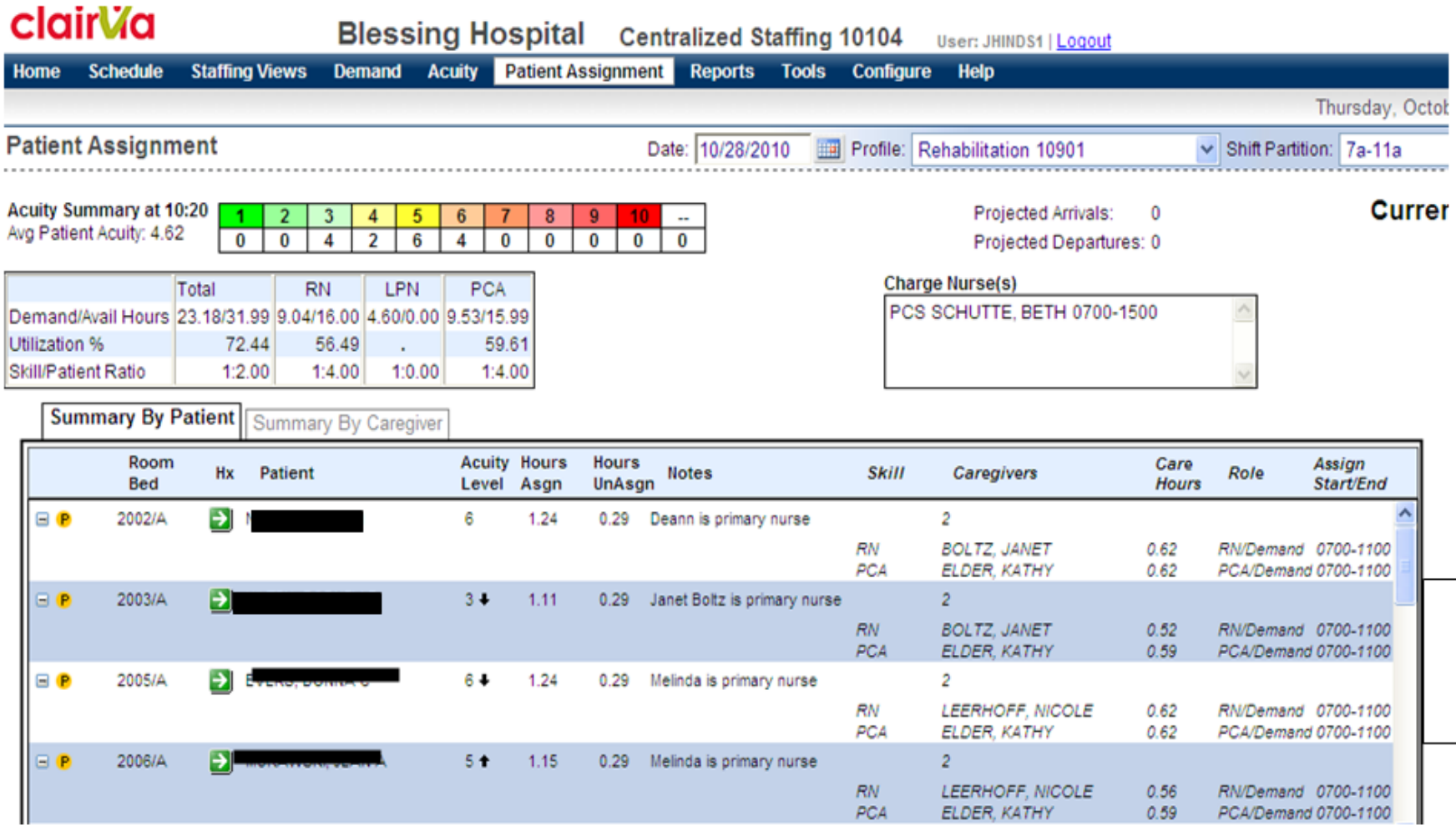
Patient Assignment



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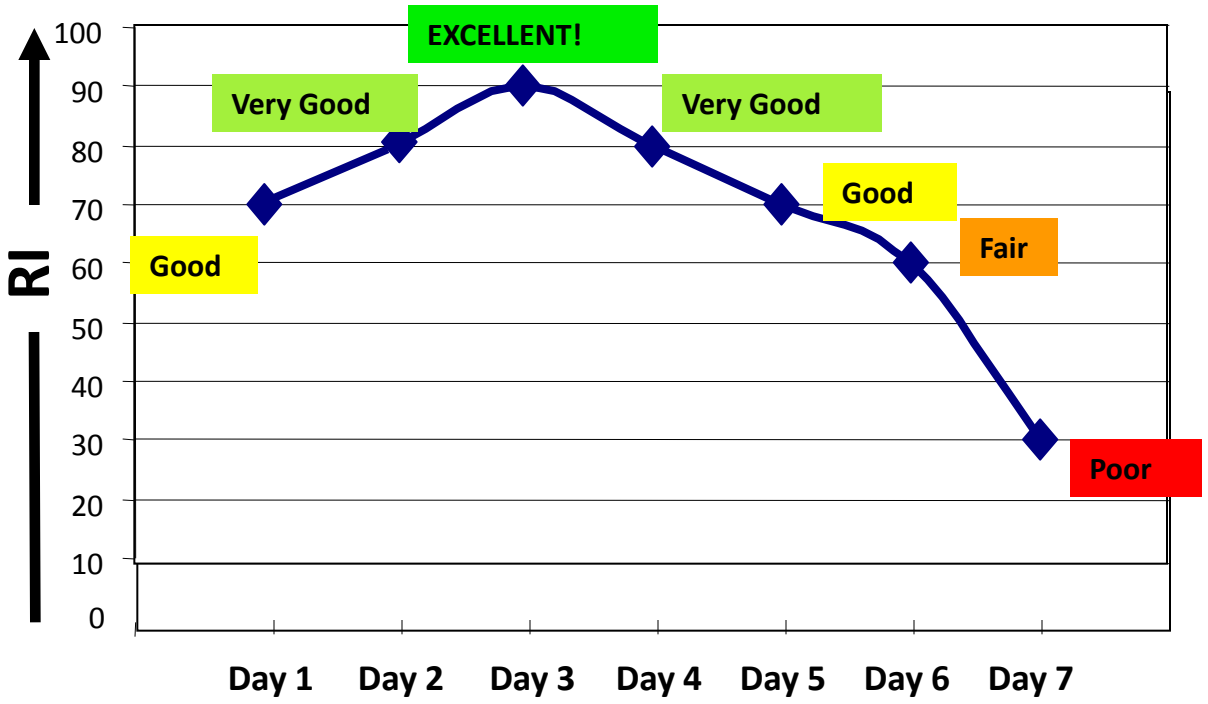
Rothman

BAR
(Core EHR)

Rothman Index

It appeared that the system failed Florence.
We had an idea.



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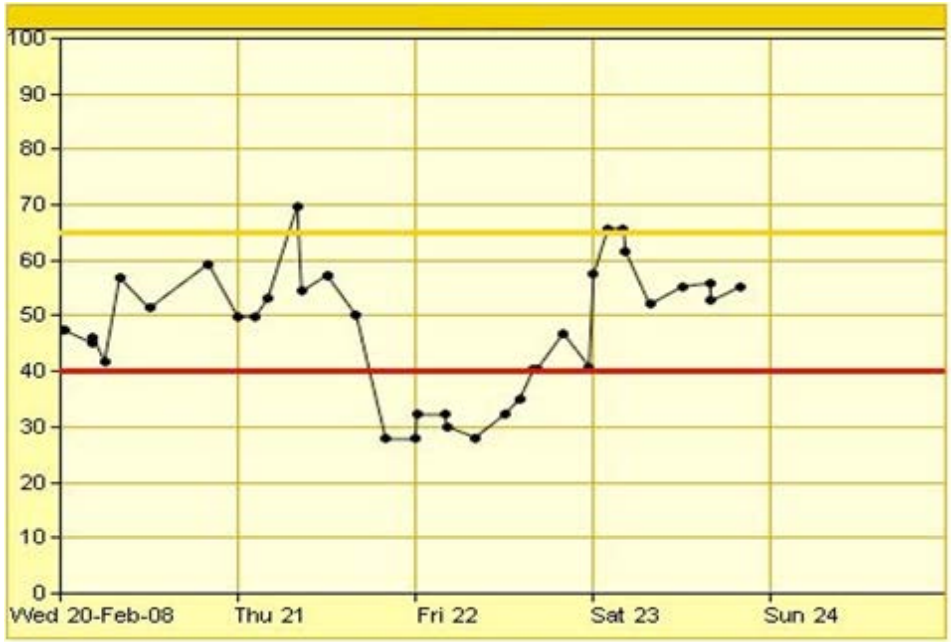
The Patient Condition Tracker

Existing EHR Data

Vital Signs
Complete Blood Count
Chem Panels
+
The Braden Scale
Nursing Assessments

The Rothman Index (RI)

Patient Monitoring Graph



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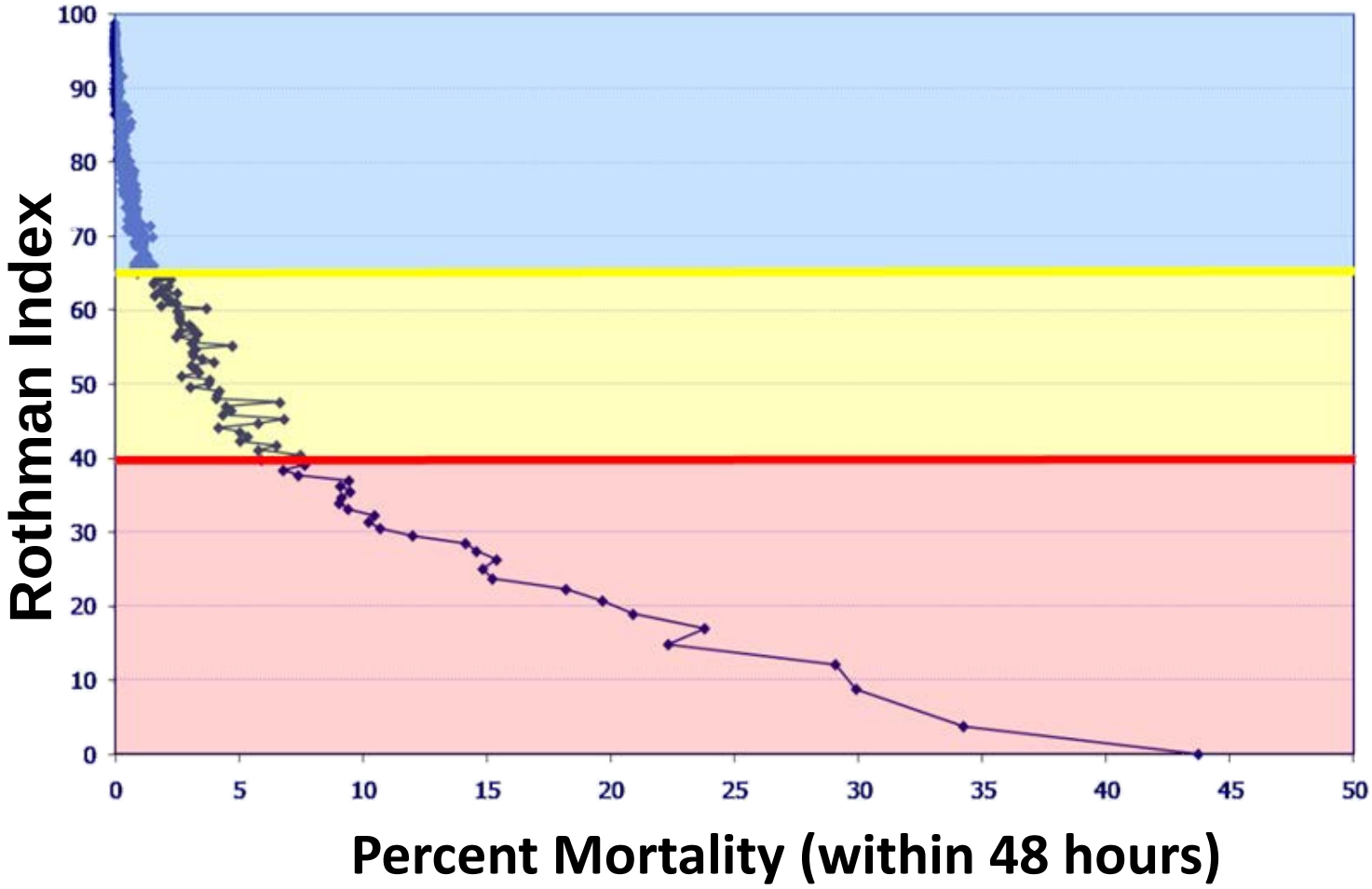
RI score correlates with severity of patient condition



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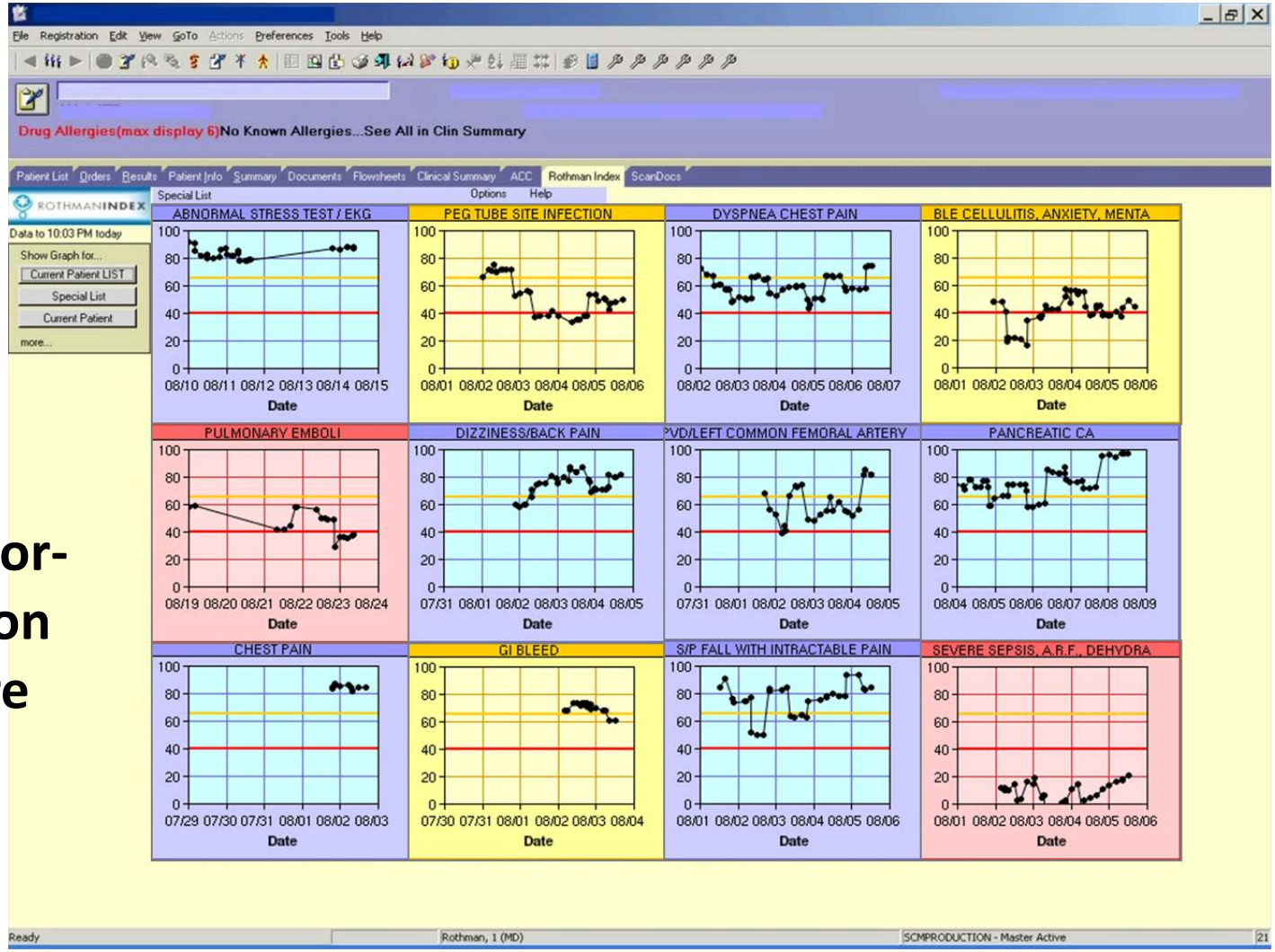
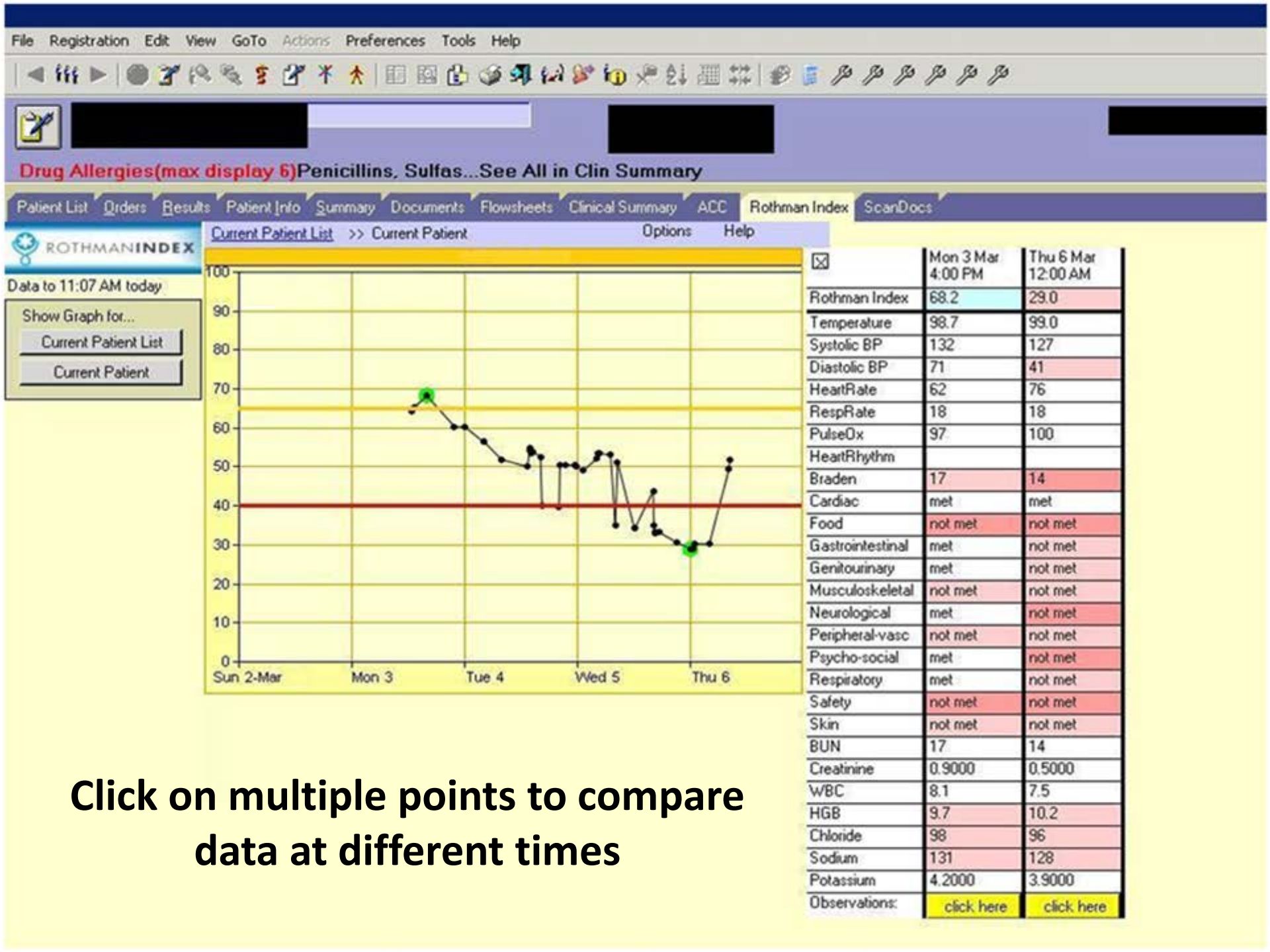
Assessing Patients using RI Tab in SCM

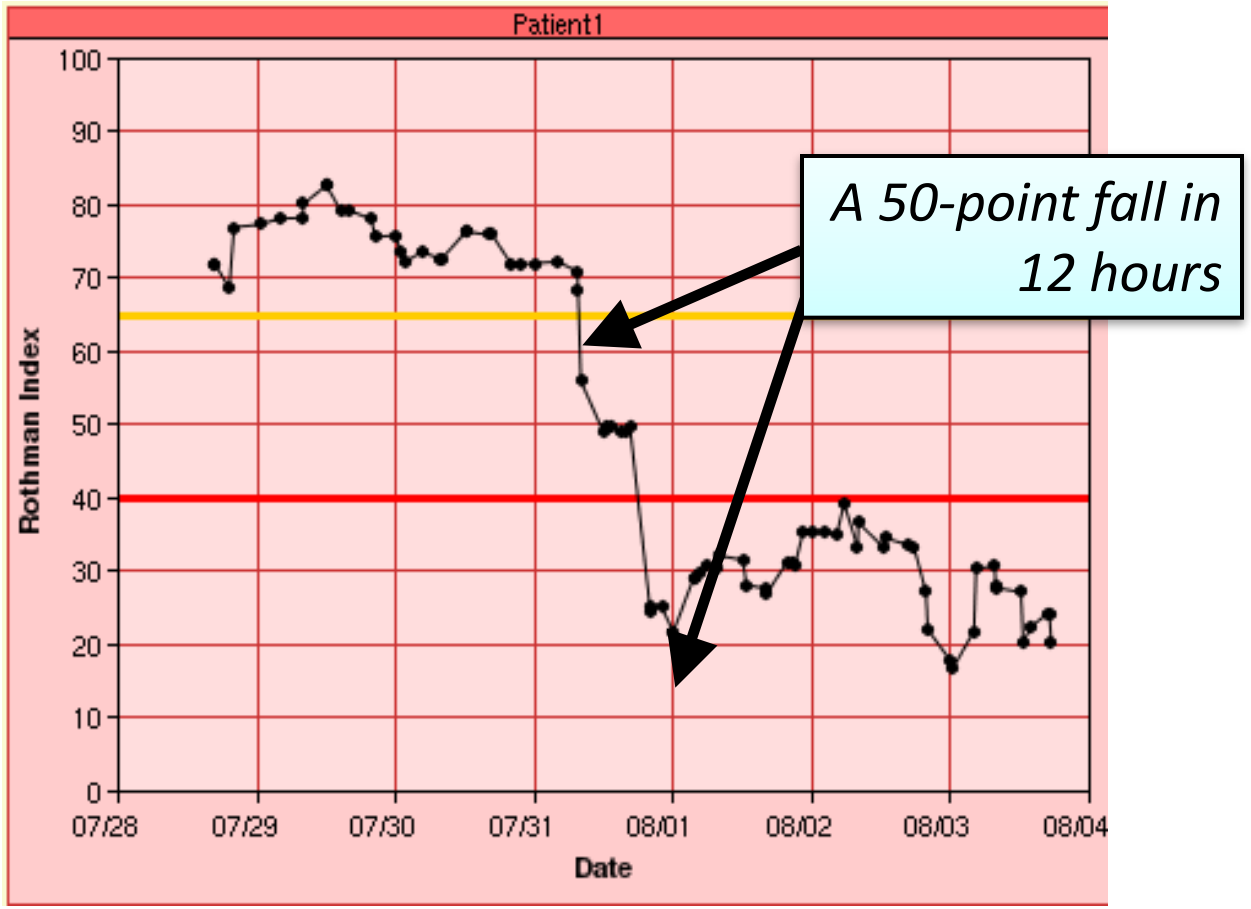
Graphs are color-coded based on latest RI score





Click on multiple points to compare data at different times

Case Study 1: A CMO asked us to look at the records of a patient who died unexpectedly.



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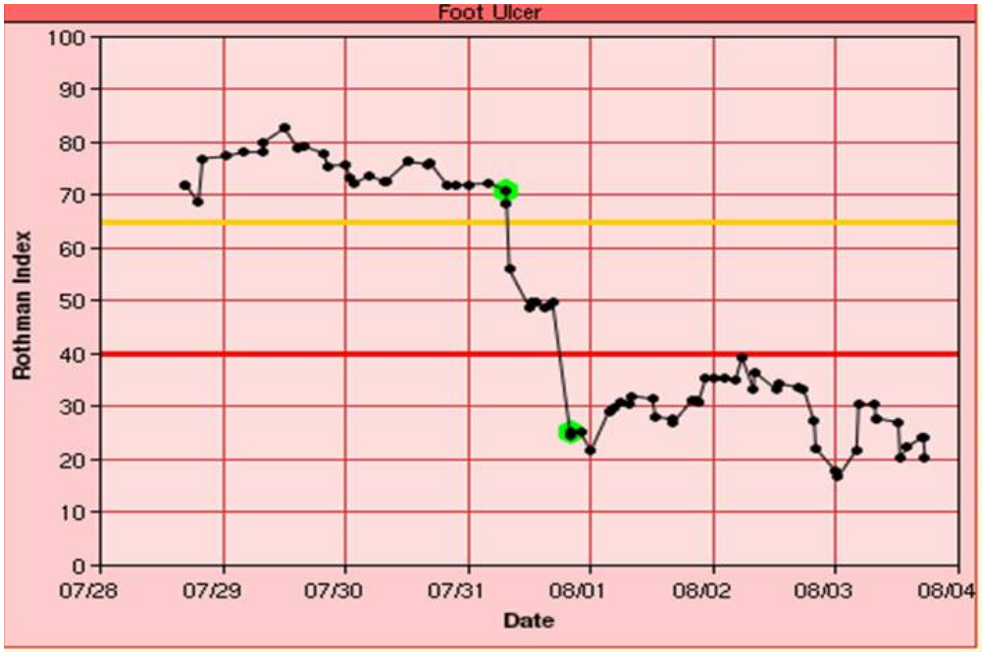
Attending physicians saw stable Vital Signs…

Time	Rothman Index	Temp	Systolic	Diastolic	Resp Rate	Pulse-Ox	Heart Rate
07:25	**71.0**	**97.7**	**161**	**79**	**18**	**97**	**84**
07:30	68.4	99.1	163	85	20	95	82
08:00	56.0	99.1	163	85	20	95	82
11:56	49.0	99.1	163	85	20	95	82
12:30	49.8	99.3	153	77	20	95	73
13:04	49.9	99.3	153	77	20	95	73
14:46	49.0	99.3	175	84	20	95	74
15:50	49.1	99.3	175	84	20	95	74
16:28	50.0	98.1	168	80	20	95	77
20:00	**24.7**	**98.1**	**168**	**80**	**20**	**95**	**77**

…but the nurses knew this patient was in trouble…

Time	Rothman Index	braden	cardiac	food	gastro	genito	musculo	neuro	periv asc	psych	safe	skin
07:25	**71.0**	**18**	**Fail**	**Pass**	**Pass**	**Pass**	**Fail**	**Pass**	**Fail**	**Pass**	**Pass**	**Fail**
07:30	68.4	18	Fail	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Fail
08:00	56.0	16	Pass	Pass	Pass	Pass	Fail	Fail	Pass	Pass	Fail	Fail
11:56	49.0	16	Pass	Pass	Pass	Pass	Fail	Fail	Pass	Fail	Fail	Fail
12:30	49.8	16	Pass	Pass	Pass	Pass	Fail	Fail	Pass	Fail	Fail	Fail
13:04	49.9	16	Pass	Pass	Pass	Pass	Fail	Fail	Pass	Fail	Fail	Fail
14:46	49.0	16	Pass	Pass	Pass	Pass	Fail	Fail	Pass	Fail	Fail	Fail
15:50	49.1	16	Pass	Pass	Pass	Pass	Fail	Fail	Pass	Fail	Fail	Fail
16:28	50.0	16	Pass	Pass	Pass	Pass	Fail	Fail	Pass	Fail	Fail	Fail
20:00	**24.7**	**12**	**Fail**	**Fail**	**Pass**	**Fail**	**Fail**	**Fail**	**Fail**	**Fail**	**Fail**	**Fail**

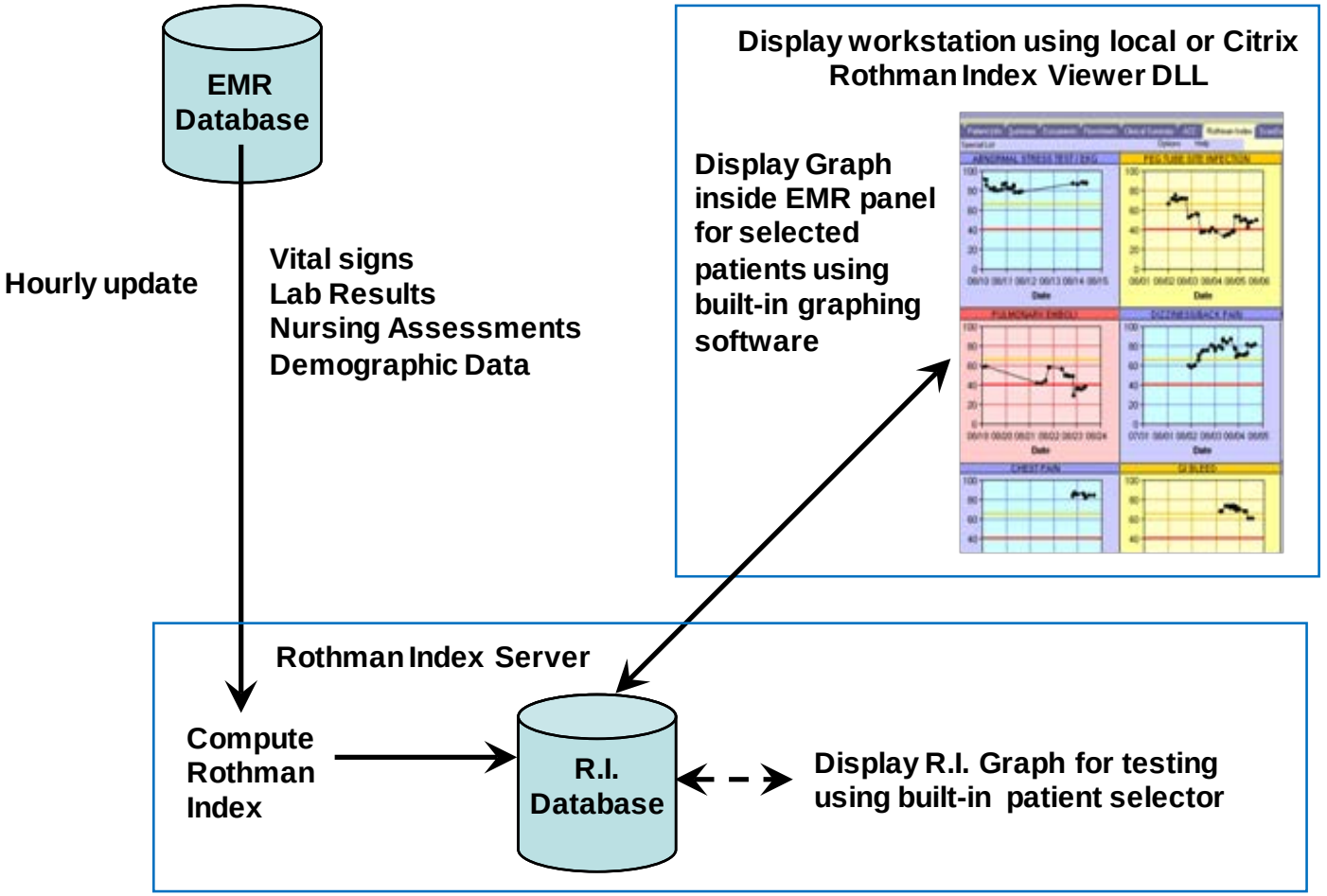
All this data could have been a click away…



	2006-07-31 07:25:00	2006-07-31 20:15:00
database RI	71.0	25.1
Temperature ° F:	97.7	100.2
Systolic BP:	161	157
Diastolic BP:	79	78
HeartRate:	84	77
RespRate:	18	16
PulseOx:	97	98
HeartRhythm:		
Braden:	18	12
Cardiac:	NO	NO
Food:	yes	NO
Gastrointestinal:	yes	yes
Genito-urinary:	yes	NO
Musculo-skeletal:	NO	NO
Neurological:	yes	NO
Peripheral-vasc:	NO	NO
Psycho-social:	yes	NO
Respiratory:	NO	NO
Safety:	yes	NO
Skin:	NO	NO
BUN:	36	36
Creatinine:	0.9000	0.9000
WBC:	10	10
HGB:	12.7	12.7
Chloride:	91	91
Sodium:	136	136
Potassium:	3.2000	3.2000

…days before the patient expired

System architecture and data flow



RightFax

Facsimile process that we use to electronically transmit our MR documentation as we coordinate our patient's continuum of care

BAR
(Core EHR)

Single Directional Interfaces

- TraceMaster EKG
  - Strips available within core EHR
- Telemetry Draeger
  - Telemetry available through EHR
- Apollo Witt
  - Cath Lab documentation and film
- KBT Transcription
  - Voice recognition software

Bi-Directional Interfaces

- Scimage Radiology
  - Imaging solution
- HealthQuest
  - Core Registration and billing functions
- McKesson Pharmacy
  - Distribution functions
- Misys Lab

Documentation Improvement

- **Free Texting: Opportunity To Reduce Free Texting**
  - Implementation lead to review of free text fields and identified holes in SCM documented fields
  - New fields added to give complete acuity assessment
- **Discovered Gaps in Documentation**
  - Patient Acuity assessment requires documentation on patient education and family participation
  - Allowed these Joint Commission required gaps to be identified and updated in SCM
- **Complete Documentation**
  - Patient Acuity requires a minimum of 70% complete documented assessment for a new Acuity score

Financial Outcomes

- RN Contract Hours Decreased
- RN Turnover Decreased
- RN Turnover Cost Decreased
- Hours per Patient Day Increased
- Incentive Bonus Pay Decreased

RN Satisfaction

- **Practice Environment Scale Mean Scores**

	2006	2007	2008	2009	2010
Average of All Units in Your Hospital					
Hospital Affairs	n.d.	2.69	2.76	2.92	2.99
Quality Of Care	n.d.	2.95	2.97	3.10	3.19
Nurse Manager	n.d.	2.86	2.85	3.00	3.04
Adequate Resources	n.d.	2.59	2.67	2.76	2.80
RN/MD Relations	n.d.	2.94	2.96	3.00	3.09
Mean PES Score	n.d.	2.81	2.84	2.95	3.02

Blessing Hospital National Hospital Quality Measures FY 2011

	Goals	Target	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	YTD
National Hospital Quality Measures	Heart Failure		98.3%	98.2%	94.9%	95.9%	93.0%	96.8%	95.2%		96.1%
	Pneumonia		98.4%	96.9%	98.6%	98.9%	98.7%	98.1%	98.6%		98.3%
	*AMI		98.6%	98.7%	98.5%	97.6%	97.8%	97.7%	99.0%		98.2%
	SCIP		95.5%	98.2%	96.6%	98.6%	96.1%	97.4%	99.2%		97.4%
	NHQM aggregate	>=97.9% 97.1-97.8% 95.5-97.0% 94.7-95.4% <=94.6%	97.1%	98.0%	97.2%	98.1%	96.8%	97.6%	98.7%		97.7%

Blessing Hospital - Hospital Acquired Conditions FY 2011

Goals	Target Range	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	YTD
Deep Vein Thrombosis Pulmonary Emboli (per month)	<=1 2-3 4-7 8-9 ≥ 10	1	0	4	3	8	2	7		4
Falls (per month)	≤ 6 7 - 10 11 - 18 19 - 22 ≥ 23	13	9	18	14	16	22	16		15

FY 2011 Hospital Acquired Infections

Goals	Target	Oct	Nov	Dec	1st Qtr	Jan	Feb	Mar	2nd Qtr	Apr	May		YTD
Catheter associated UTI (acute care)	≤1 2-3 4-7 8-9 ≥10 per quarter	2	0	1	3	0	1	1	2	1	2		8
Catheter associated UTI (non-acute care)	0 1-3 4-5 ≥6 per quarter	0	0	0	0	0	0	0	0	0	0		0
Central line infections	0 1-2 3 ≥4 per month	0	0	0		0	0	1		1	0		2
Ventilator associated pneumonia (critical care)	0 ≥1 per year	0	0	0		2	0	2		0			4

FY 2011 Hospital Acquired Infections

Goals	Target	Oct	Nov	Dec	1st Qtr	Jan	Feb	Mar	2nd Qtr	Apr	May		YTD
Methicillin Resistant Staph	≤2 3-4 5-7 8-9 ≥10 per quarter	1	0	1	2	0	4	3	7	5	2		16
Clostridium difficile infections	0 1 2-4 5-6 ≥7 quarter	1	0	0	1	1	1	0	2	1	0		4
Surgical Site infections IIth Street Campus	≤1 2-3 4-5 6-7 ≥8 per month	3	3	4		7	3	2		2			24
Surgical Site infections Surgery Center Quincy	0 1-2 3 ≥4 per month	1	0	2		0	1	0					4

Quality counts

Clinical Documentation

- Implementation of Nursing & Ancillary clinical documentation using Allscripts Starter Sets.
- Started out with 45 documents, currently we have 250 documents on line for all areas & all specialties.
- Configuration of documents along with the use of Medical Logical Modules have allowed “hardwiring” of core processes to meet core measures.
- Clinical Summaries with ability of a quick glance improves handoff between staff.
- Reference wrenches providing online access to protocols, policies, & procedures, physician protocol information, & additional resource information.
- Images, including Radiology, Cardiac Cath Lab & EKG have been linked to the patient record within SCM for effortless access to images by the clinicians.

Clinical Documentation – Outcomes

- Joint Commission Survey 8 months post go-live with our initial implementation with excellent results. No issues related to clinical documentation were identified.
- Joint Commission Survey 2010.
- By use of the prescription writer & MLM from a structured note, the physician completes a medication structured note on admission that autofaxes to Pharmacy.
- Improvement of Core Measure Scorecard:
  - CHF Discharge Instruction – 100% compliant within 6 months.
- Using the Clinical Summary Tab developed multiple views to be used for professional exchange report between disciplines.

Next Steps

- OB Interfaces for L&D Record to integrate the delivery record with postpartum
- SIS – Surgery Information System to provide intraoperative and anesthesia documentation online
- Bed Board to improve Patient Flow

Questions & Answers

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