

# Smart Card Solution



Walk In HealthCare  
MWV Pharmacy  
Merriman House

**Lawrence Carbonaro**


**Director, Purchasing & Patient Access**

# The Memorial Hospital North Conway, New Hampshire Customer Service Initiative



Memorial Hospital Health Services

Peter J. Patient  
ID: 12345678



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Please bring your card to each visit

# Charlie

- Patients simply don't understand...Nor should they.

# Reality & Public Perception

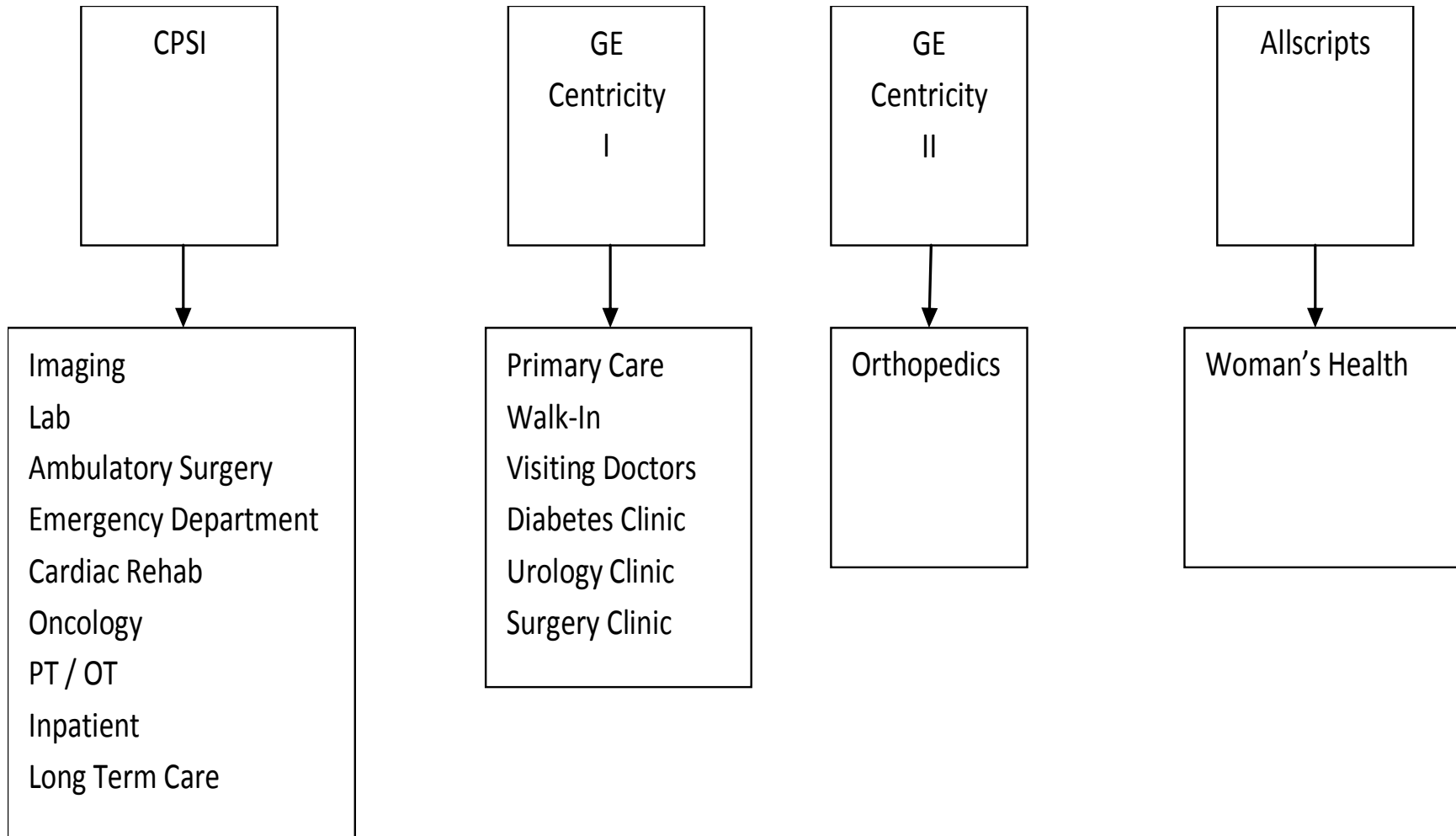
- Data Measurement (missing or incorrect): 6.8% Average
  - Errors caught and corrected by Billing
- Press Ganey
  - Helpfulness: 91.1% US Average / 89.1 TMH
    - 12% Rate TMH Fair to Poor
  - Ease: 91.1 US Average / 86.9 TMH
    - 17% Rate TMH Fair to Poor
  - Wait Time: 87.5 US Average / 84.1 TMH
    - 22% Rate TMH Fair to Poor
  - Courtesy / Privacy: 85% US Average / 92% TMH
    - 6% Rate TMH Fair to Poor

## Economic Conditions

- Co-pays are increasing & harder to collect
- Billing Delays for Information are Increasing
- Increasing % of Americans are uninsured
- Providers struggle with revenue cycle and reducing write-off due to bad debt due to:
  1. Bad demographic information
  2. Human error / operational inefficiencies

# WHY ?

## IT Hierarchy: 4 Hospital Registration Systems



# WHY ?

- Inefficient & annoying patient flow
  - Possible to Register 4 Times in 1 Day
- Inconsistent practices between areas
  - Demographic Data may be different
- Lack of a unity of purpose between areas
  - Everyone does it different !

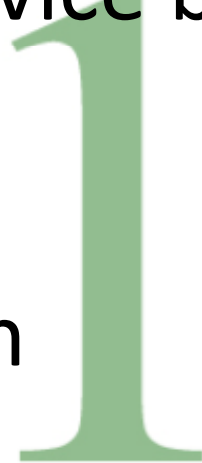


# Result

Perception we are technologically lacking

POOR customer service by not putting  
customer first

BAD first impression



# Decision: Where Do we Go From Here ?

- Who Are We
- What Do We Need to Know
- Where Does The Information Go

# WHO

## The Memorial Hospital.....

- Hospital
  - Ambulatory Surgery
  - 25 Bed Inpatient / OB / ICU
  - Emergency Department
  - Imaging Services
  - Laboratory Services
  - Cardiac Rehabilitation
  - Oncology

# The Memorial Hospital.....

- 45 Bed Long Term Care facility
- Primary Care
- Diabetes
- Walk-in Care
- Orthopedics
- Woman's Health Center
- Surgery / Urology

# WHAT & WHERE

## Beginning of the Revenue Cycle: Registration

### Why We Ask What We Ask...

#### ➤ Clinical: Who Are You:

- Account Number
- Medical Record Number
- EMR

#### ➤ Billing: Who Is Going To Pay

##### ➤ Insurance Card / Guarantor

- Patient, Spouse or Parent
- Work
- Motor Vehicle Accident
- Medicare requirement: Questionnaire Each Visit
- Medicaid requirement: Verify with Patient/State Each Visit
- Accident Screens: Each Visit

# Beginning of the Revenue Cycle: The Registration

Why We Ask What We Ask...

1) Required By Law

2) Things Change

# Selection Process

- 1 Registration System for Hospital & Practices
- Elimination of Redundant, Inefficient Patient registration Flow
- Reduction in Registration Errors to <2%
- Greater Emphasis on Pre-Registration
- A Technology Driven Solution

# Recommended Solution

- New Application of an Old Technology: Smart Card Chip Technology
- 1 Database Shared by Hospital and Practices Utilizing Portable Smart Card Technology
- System Design Keeping the Best Human Elements While Adding Web, Telephone and Kiosk Technology
- Comprehensive Certification & Training Program

# ONE GOAL

- Logical flow for patients – They are #1
- Consistency between areas – 1 Registration System
- Uniformity of purpose – 1 Certification Program
- Uniformity of Appearance – 1 Professional Attire
- Application of Technology – 1 Lifemed Smart Card
- 1 Hospital with 1 Set of Rules for Customer Service

# Why Smart Card ?

- Cost to replace 3 Systems
  - Acquisition cost
  - Migration Cost



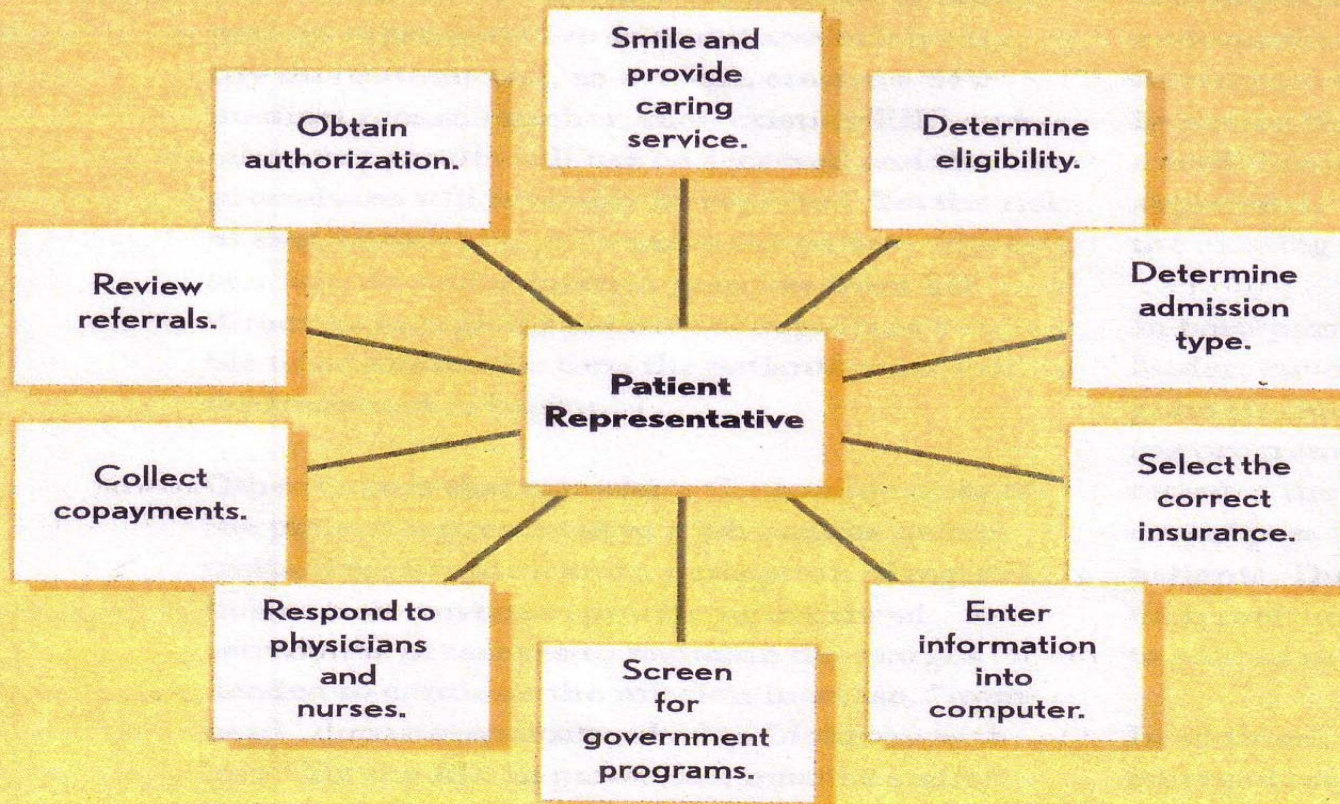


# Why A Smart Card ?

“A big benefit is that the registration process is much quicker”

- Provide a portable and secure device to access patient demographic data quickly.
- Accurately identify patients at point of care.
- Enables information sharing across organizations over 4 disparate systems
  - Hospital: CPSI
  - MWV: Centricity
  - Northern New Hampshire Orthopedics: Centricity
  - Northern Woman’s: All Scripts

## RESPONSIBILITIES OF THE PATIENT REPRESENTATIVE



- Healthcare has a 5% clerical error rate gathering patient data
- Pressure to register quickly at expense of quality
- Lack of appropriate tools accomplish required tasks
- Extremely complex system yet 0 tolerance for errors



# Key Features

## FEATURE

- Desktop software for patient authentication
- Smart cards with patient data
- Kiosks for patient input and pre-admissions access
- Web site enrollment
- First responder Smart card readers

## BENEFIT


- Streamlining registration process and lowering error rates
- Providing accurate information that is updatable
- Save valuable staff and patient time by having forms automatically filled out
- Complete data input prior to hospital access
- Accurate, current data is conveyed, even if the patient can't communicate



# Smart Card Technology Solution at The Memorial Hospital

- Integrated design addresses key efficiency bottlenecks & can Bridge Autonomous Systems
- HIPAA Compliant
- Utilizes easy to use technologies (HL7)
- Stores information that's accurate, portable, & updateable.
- Builds a stronger relationship between the hospital, its patients, providers, and the local emergency services.
- Potential for adding Clinical Information in next phase

# SMART CARD BIRTH CYCLE

- Conception: 12/06 – 11/07
  - 1<sup>st</sup> Trimester: 11/07 – 2/08 The RFP Process & Vendor Selection
  - 2<sup>nd</sup> Trimester: 6/08 – 9/08 Specificity of Development: Internal & External Business Rules
  - 3<sup>rd</sup> Trimester: 9/08 – 4/09: Development & Testing
  - Birth: April 1, 2009
- 

# More Than Just IT.....

Number	Task	Start	End	Duration	2008											
					January	February	March	April	May	June	July	August	September	October	November	
1	Database Design SOW - Carbonaro / Fitch	3/22/2008	4/22/2008	21												
2	Interface Design - Carbonaro / Fitch	2/12/2008	5/22/2008	72												
3	Trainer Job Description / Recruit - Carbonaro	2/23/2008	4/22/2008	41												
4	Training - Carbonaro	5/7/2008	5/22/2008	11												
5	Compensation - Newton	1/1/2008	3/13/2008	52												
6	Marketing Program - Carbonaro / Newton	4/1/2008	6/30/2008	64												
7	Phone Input Process - Carbonaro	1/1/2008	1/8/2008	5												
8	Web Input - Fitch	1/1/2008	1/8/2008	5												
9	Phone Kiosk - Carbonaro / Fitch	1/1/2008	1/13/2008	9												
10	Patient Intake - Carbonaro / Fitch	1/1/2008	1/6/2008	4												
11	Patient Card - Carbonaro	1/1/2008	1/21/2008	14												
12	Space - Carbonaro	1/1/2008	2/22/2008	38												
13	RFP - Carbonaro	1/1/2008	1/2/2008	1												
14	Vendor Identification - Carbonaro / Fitch	1/1/2008	1/23/2008	16												
15	Negotiate Agreement	1/23/2008	2/13/2008	15												
16	GO LIVE - TEAM	6/1/2008	6/30/2008	20												
17	Complete	1/1/2008	1/2/2008	1												
18	Underway	1/1/2008	1/2/2008	1												

8/22/08

8/15/08

6/30/08

6/30/08

6/30/08

6/30/08

7/31/08

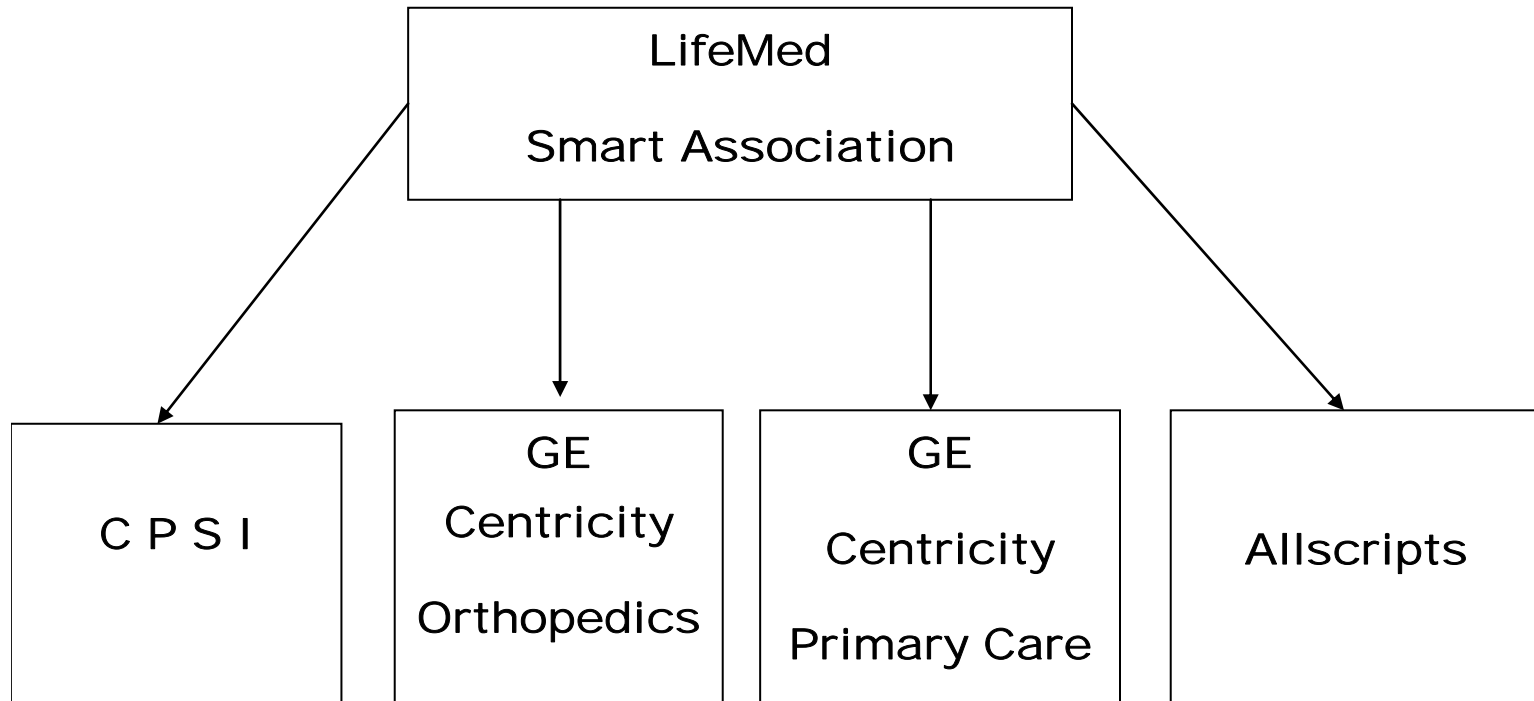
10/15/07

2/15/08

3/18/08

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# IT Hierarchy With Lifemed



# Key Operational Features

Each Patient receives a Smart Card With...

- Unique Number Identifier
- Photo ID
- Demographic Data Stored on Card & 2 Back-up Servers
- Registration Card accessible for ALL Hospital Services
- Revised Patient Flow to Eliminate Redundant Registrations
- Internet Portal to Enroll / Update
- Kiosk Technology

# Key Patient Benefits

- Positive First Impression at TMH
- Security
- Access to their Information via Web & Kiosk
- Faster Registration Process
- One Stop Registration Process
- Pre-Registration for services available at ALL clinical areas.
- Improved Technological Perception of TMH

# ROI & Indicators of Success

## Duplicate Record Errors & Manual Patient Admissions Cost

- Reduction in Registration errors to < 2%
  - Faster Billing & Reimbursement
  - Reduction in Missing Data for Clinical Areas
- 95% of ALL Patients with a Smart Card
- Reduce Admission Time by 2/3
- Improvement in Press Ganey Results

# Lifemed Smart Card Summary

- Hospital Identification / Branding Program
- Link & Train ALL Registration Personnel to Create a Professional Image
- Database Bridge to Link ALL Hospital Systems
- Share Data with First Responders
- Automate with Kiosk / Internet Options

## Memorial Hospital:

- Unique set of requirements pushing the design set
- Unique set of business rules altering the “way we’ve always done things”

# Future Uses

- Incorporate Insurance Verification for Improvements on the Payer Side
- Incorporate Clinical Data
- Expand Uses in Community Beyond TMH Boundaries

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