# Identity Management in Healthcare

Smart Card Alliance Webinar September 22, 2009

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# **Webinar Topics**

- Importance of identity management in healthcare
- The enhanced liability that new regulations and legislation place on healthcare organizations
- Challenges with patient identity management and authentication within healthcare organizations and with healthcare data exchanges.
- Results achieved by the Mount Sinai Medical Center and Memorial Hospital smart patient health card programs



# **Speakers**



Randy Vanderhoof, Executive Director, Smart Card Alliance



Richard Marks, Co-Founder & President, Patient Command, Inc.



Lawrence Carbonaro, Director, Purchasing & Patient Access, The Memorial Hospital, North Conway, New Hampshire



**Paul Contino** Vice President of Information Technology **Mount Sinai Medical Center** 









# Smart Card Alliance

### Introduction: Identity Management in Healthcare

Randy Vanderhoof Executive Director, Smart Card Alliance



### Smart Card Alliance mission

To stimulate the understanding, adoption, use and widespread application of smart card technology through educational programs, market analysis, advocacy, and industry relations in the United States and Latin America.

 Over 150 members, including participants from financial, retail, government, corporate, and transit industries and technology providers to those users

### Major activities

- > Conferences, symposia, web seminars
- Educational workshops and on-line training
- > Web-based resources: white papers, reports, industry product and services
- Industry and Technology Councils
  - Identity Council
  - Contactless Payments Council
  - Healthcare Council
  - Physical Access Council
  - Transportation Council



# Identification Technologies and Applications Vary by Use Case







Identity credentials come in a variety of shapes, card types and capabilities





The Avenue Vision and



# **Common Requirements for Identity Credentialing for Healthcare**

### Secure identity credentialing process and data management

- > Validation of source documents prior to issuance
- Managing data on card vs. data stored on systems
- Process for updating data and securing access
- Process for rapid revocation once card expires or is revoked

### Authentication of the individual and credential

- Common Machine Readable Technology (MRT) present
- MRT links to physical characteristics (biometrics)
- Security features to protect the physical credential and the data elements in the MRT
- Security and privacy must be "baked in" for cardholders to accept credential and use it

### **Randy Vanderhoof Executive Director**

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### Health Information Security under ARRA – A New World of Enhanced Responsibility

Richard D. Marks Co-Founder and President, Patient Command, Inc.



# ARRA changes the rules for security of health information in the U.S.

- Modifies HIPAA security (more below)
- Imposes new security requirements for HIPAA covered entities and their business associates
- Imposes security requirements for Personal Health Record (PHR) systems and others not covered by HIPAA
- Enacts a new regime for breach notification
- Emphasizes enforcement at the federal and state levels, including required federal investigations and enforcement by state attorneys general and whistleblowers



# **ARRA Security**

### Hierarchy of diligence and culpability

- Reasonable diligence and would not have known
- Reasonable cause and not willful neglect
- Willful neglect (and corrected or not corrected)
- Increased, tiered civil and criminal monetary penalties – top is \$50,000 per violation, with annual limit of \$1,500,000
- Civil and criminal liability for individuals (fines and prison terms) as well as for organizations
- Breach notification for unsecured information (in effect, requires NIST-described encryption)



- Integrated health information security is inherent in ARRA
- Sections 13401, 13404 references in business associate contracts now, by law, apply mutually (both ways) to covered entities and business associates
- Requires reassessment of what business associate agreements mean for both CEs and BAs – both as to responsibilities for, and liabilities related to, security
- This is not just a legal analysis it requires reassessing business processes and technology
- > This is costly and no one wants to hear that
- People have yet to focus on Sections 13401 & 13404



### What does this mean for

- Boards of directors?
- Senior (C-suite) executives?

### Issues for public companies

- Sarbanes-Oxley governance
- Public company disclosure and accounting
- Practical consequences of transitioning from an era of subdued (read "non-") enforcement to an era of enhanced enforcement
- Demands a different approach to security risk and response models – diligence is the goal

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Richard D. Marks Patient Command, Inc. McLean, Virginia <u>richardmarks@earthlink.net</u> <u>www.patientcommand.com</u>

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### **Smart Card Solution**

Lawrence Carbonaro *Director, Purchasing & Patient Access* The Memorial Hospital, North Conway, New Hampshire



# The Memorial Hospital North Conway, NH Smart Health Card Initiative





# **Identity Management in Healthcare**

### The Memorial's Smart Health Card 'patient service initiative'

Critical Importance of Patient Intake

Motivations for Deploying the Card

✓ Results

✓ Future Intentions



### **Connectivity Model**





# **Patient Identity Validation**

# Registration: the critical system entry point

why we ask what we ask: <u>legalities</u> and <u>life changes</u>

- ✓ Clinical Identity Establishes Care Regimen
  - Patient Account Number
  - Medical Record Number
  - EMR
- Demographic Identity Initiates Revenue Cycle
  - Patient, Spouse, Relations
  - Guarantor Verification
  - Insurance Carrier Verification
  - Type of Claim Incident
    - Motor Vehicle Accident
    - Work Related Accident
    - Medicare/Medicaid Incident



# **Quality Control Environment**



- ✓ Healthcare has a 5% clerical error rate in gathering patient data
- Pressure to register quickly at the expense of accuracy
- Inadequate tools do not match the required tasks
- Extremely complex system yet zero tolerance for errors



### **Memorial Identity Ecosystem**

### **IT Hierarchy: 4 Hospital Registration Systems**





# **IT Hierarchy With LifeMed**





# **The Memorial Hospital Community**



- 25 bed critical access hospital
- 45 bed long term care facility
- Women's clinic
- Orthopedic clinic

- 59,412 annual visits hospital
- 49,553 annual visits clinics
- Average daily census: 16.5



### Identity Management: Real & Perceived Metrics

Errant patient information: 6.8% average frequency Incorrect and missing corrected by Billing Dupes and overlays corrected by Medical Records Press Ganey Report Card Helpfulness: Average 91.1 Memorial 89.1 12% rate Memorial "fair to poor" Ease: Memorial 81.3 Average 91.1 17% rate Memorial "fair to poor" Memorial 81.1 • Wait Time: Average 87.5 22% rate Memorial "fair to poor" Memorial 92.1 Privacy: Average 85.1 6% rate Memorial "fair to poor"



# Value Proposition & ROI

- Motivation for Smart Card Initiative
  - Patient satisfaction: redundant process system wide
  - Administrative: overlaid records at facilities missing corrected by Billing
  - Economic: labor and cash flow fix-its
- ✓ Results
  - Press Caney results after 1<sup>st</sup> full quarter
    - Ease of Registration
       Improved by 10 percentage points
    - Wait time in Registration
       Improved by 10 percentage points
  - Errors: reduced from 6.8% to less than 1%
  - Duplicate medical records: reduced to less than 1%
  - Patient waiting & desk time: reduced from 18 minutes to less than 3 minutes
  - Branded Smart Card extended reach to Patient Community: 95% coverage
  - Patient access staff reduced from 21 FTEs to 16 FTEs
  - Payback period of 18 months accelerated to 8 months



# **Future Intentions**

- Incorporate Continuity of Care Information on Card Data Set
- Link Physician Practices
- Link Emergency Services Providers
- Extend Information Exchange with Payers for Improved Eligibility and Insurance Verification



# **Future Clinic Data Flow**





# LifeMed Architecture Implementation



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### Lawrence Carbonaro

Director, Purchasing & Patient Access

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### **Identity Management in Healthcare**

Personal Health Cards: A Model for Identity Management and Security Controls for Healthcare Information Networks

Paul Brian Contino Vice President of Information Technology Mount Sinai Medical Center





# Personal Health Cards: A Model for Identity Management and Security Controls for Healthcare Information Networks > Importance of Patient Identity > Personal Health Cards > Benefits and Business Case > Regional and National Agenda



# Mount Sinai Medical Center, NYC

- Founded in 1852
- 1,171-bed tertiary-care teaching hospital
- Mount Sinai Hospital of Queens (235 bed)
- Medical School and Graduate School
- 1,000,000 patient visits per year
- 100,000 emergency room visits
- Database of over 3.7 million patients





# **Importance of Patient Identity**

# Is the patient in front of us who they say?

- Patient Safety appropriate medical care
- Avoid potential medical errors

# Link patient to existing medical records

- Continuity of Care
- Provide clinical data to healthcare providers

# Medical billing and claims processing

- Medical Identity Theft
- Fraud and Abuse



# **Personal Health Card**

# Identity Management

- Photograph
- Patient Name
- Medical Record Number
- Demographics (chip)

# Registration Efficiency

- Positive ID
- Barcoded MRN
- Linkage to Patient Records

# Emergency Medical Access

# Health Information Exchange





# Personal Health Card what's on the chip?





# **Local Benefits and Business Case**

# Administrative

- Positive identification of patients
- Reduce registration time for patients
- Improved data accuracy (registration  $\rightarrow$  billing)
- Reduce medical records maintenance costs (duplicate/ overlaid)
- Regulatory Compliance JCAHO, HIPAA, HITECH

# Clinical

- Accelerate information availability during emergency care
- Continuity of Care between healthcare providers
- Patient Safety- Reduce medical errors & adverse events



# Medical Records Management

- On average, 5 15% of a hospital's medical records are duplicated or overlaid.
- In the last 6 years, Mount Sinai has done two large scale medical record cleanups
- Last one costing the institution \$1.8 million dollars and involved over 250,000 duplicate records.
- <u>Smart cards</u> are as a way to significantly stem these duplicates



### Claims Denials and Revenue Capture

- Studies estimate that 50% to 90% of claim denials could be prevented by securing accurate patient information at the front desk.
- Mount Sinai estimates that about \$1 million dollars a week is lost or delayed due to claims denials.
- A recent audit revealed that upwards of 70% of these denials involved missing or inaccurate data that is typically collected as part of the registration process
- <u>Smart cards</u> improve data integrity



# Patient Satisfaction

- Reduce registration wait times
- Reduce administrative paperwork (Clipboardectomy)
- Positive healthcare experience
- <u>Smart Cards</u> empower & engage patients in their
  - healthcare





# **Healthcare at a National Level**

### American Recovery and Reinvestment Act of 2009 (ARRA)

\$728 Billion 'Stimulus Package'

Health Information Technology for Economic and Clinical Health Act (HITECH)

\$19.4 Billion for EHR Adoption





# Healthcare: Where Are We Going?



National Health Infrastructure Network Regional Health Information Organization Health Information Exchange Electronic Health Record Personal Health Record Electronic Medical Record



# Healthcare: Where Are We Going?

NHIN **RHIO / HIE** EHR PHR

National Health Infrastructure Network Regional Health Information Organization Health Information Exchange Electronic Health Record Personal Health Record Electronic Medical Record

**Identity Management** 







# **Healthcare: Where Are We Going?**









# **Health Information Exchange**





# **Health Information Exchange**





- As Electronic Medical Records become more prevalent there will be the conflicting needs to both protect and share this information.
- In order to have Electronic Health Records, you need identity management.
- Smart Card Technology provides a compelling solution to the challenges of identity management in healthcare.
- Smart Cards address the enhanced security and privacy demands of HITECH.



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### Conclusions

Randy Vanderhoof Executive Director, Smart Card Alliance



- Secure, portable, ID card technology is the cornerstone of effective identity management
- Regulatory compliance measures demand the attention of all healthcare stakeholders
- Sound business models exist for using smart card technology to address the challenges of identity management in healthcare.
- Smart Cards <u>protect</u> patient data, and enable the <u>sharing</u> of data across multiple electronic health information boundaries "responsibly"



# **Questions and Answers**



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