Creating an Impactful Informatics Department

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HIMSS CMIO Roundtable: Creating an Impactful Informatics Department

MODERATOR
David Michael, MD
Chief Medical Informatics Officer

VIDANT HEALTH™
Agenda

• Jeremy Theal, MD FRCPC
  – Building a team to manage evidence-based content/clinical decision support in our hospital EHR

• Milisa Rizer, MD, MPH
  – Bringing clinical input into the IT team, developing SME’s and physician builders

• David E. Danhauer, MD FAAP
  – Best practices and lessons learned from an established informatics department, challenges faced, and future opportunities
Conflict of Interest

Jeremy Theal, MD, FRCPC
Milisa Rizer, MD, PMH
David E. Danhauer, MD, FAAP

Have no real or apparent conflicts of interest to report.
Learning Objectives

- Discuss the different lifecycle phases in the development of an informatics department.
- Analyze the role of the medical staff in helping to identifying both the functionality of an informatics department and the data sources utilized.
- Explore lessons learned from other organization experiences with setting up and staffing informatics departments.
Speaker Introduction

Jeremy Theal, MD, FRCPC

Chief Medical Informatics Officer

NORTH YORK GENERAL

Making a World of Difference

HIMSS17
About North York General Hospital

- Community academic hospital affiliated with University of Toronto, serving > 400,000 citizens
- Three Facilities
- Beds: 426 acute care
  192 long-term care
- Annual volumes:
  - 124,000 ED visits
  - 31,000 inpatient cases
  - 214,000 outpatient cases
  - 5,800 births
eCare Project Milestones

Kickoff: 2007
Phased Implementation: 2008-2015
Hospital-wide: 2015

eCare Milestones:

- 2006 – HIMSS EMRAM Stage 2
- 2008 – HIMSS EMRAM Stage 3 (clinical documentation)
- 2011 – HIMSS EMRAM Stage 6 (CPOE, eMAR, CLMA, CDSS)
- 2015 – Advanced clinicals throughout inpatient venue
- 2016 – HIMSS Davies Award
eCare Guiding Principles

- By clinicians, for clinicians
- “Make it easy to do the right thing”
- Change culture: embrace evidence-based care
- Build CDS into workflow
- Standardization focus, centralized governance
CENTRALIZED BUILD

- Smaller core team
- Advantages:
  - Consistent application of standards, style
  - Strong CDS build expertise
  - Prototyping and review focused on evidence
- Challenges:
  - Development time
  - SME engagement
  - Specialty-specific needs

DECENTRALIZED BUILD

- Departmental teams
- Advantages:
  - Parallel build $\rightarrow$ faster
  - Fewer Informatics resources
- Challenges:
  - Lack of HIS and CDS-specific build expertise
  - Less adherence to standardization
  - Rework of content required
  - Less focus on evidence (“just take it out”)
NYGH’s CDS Build Approach

- **Centralized build team**: supported by CMIO, Order Set Policy
- **Standardization**: central prototyping, style guide, integrated evidence
- **No personal order sets**: remove variations in care
- **Content review by department**: consensus for approval, iterate if needed
Clinical Informatics Team

Information Services

- IT and Clinical Informatics
- Clinical Informatics (CI):
  - Build and support all clinical applications and content
  - 2006: 15 people
  - 2016: 17 people
- Changes over 10 years:
  - 2008: created Order Set Team
  - 2013: added 2 non-CI PM’s

Order Set Team

- Started in 2008
- First CPOE go-live in 2010 (Med/Surg/Critical Care)
- Builds and maintains all clinical content for CPOE, CDS
- 1.5 FTE CI analysts, increased to 2.5 FTE over time
- 1.0 FTE physician (3 to 4 MD’s)
- 1.0 FTE pharmacist (2 to 3 staff)
Order Set Team Activity

- Library grew from 350 to 850 evidence-based order sets between 2010 and 2016.
- Regular order set updates – many inputs:
  - Front-line clinician requests (system stewardship)
  - Updated evidence, utilization reporting, policy
  - Formulary changes, government programs
  - “Choosing Wisely Canada” campaign
  - Guiding principle: “What is best practice, and best for the patient”?
- Past 12 months:
  - 379 new/updated electronic order sets – completed 5-step interprofessional design and review process
Thank you...
Speaker Introduction

Milisa Rizer, MD, PMH

Chief Medical Informatics Officer
Professor of Family Medicine, Nursing and Biomedical Informatics

The Ohio State University
Wexner Medical Center
Bringing the Physician Into IT

1.6 M outpatient visits annually
57,000+ admissions annually
117,000+ ED visits annually
132,000+ OSUMyChart users

1,100 attending physicians
800+ residents and fellows
3,200+ registered nurses
18,000+ end users

Improve People’s Lives Through Innovation in Research, Education And Patient Care.
Why Include Physicians?

- To allow buy in and ownership
- The project now becomes theirs and is no longer an “IT” project
- Their peers have someone to reach out to
- Because they are genuinely interested.
Who to Include

1. Pick someone that everyone respects and will follow, older and wiser works.
2. Don’t pick the “techy” doc that others may feel like he/she is far more skilled and they cannot replicate.
3. Pick the naysayer, if you can win them over, the others will also follow.
How to Include Physicians

There are many structures for this and all seem to work, it depends on your organization.

- Hire them
- Have the department hire them
- Borrow them from a department
Thank you...
Speaker Introduction

David E. Danhauer, MD, FAAP

System Vice President / Chief Medical Information Officer
Owensboro Health Demographics

- 2 Hospital System
- Nearly 500 Combined Beds
- 70,000 Annual ED Visits
- 180 OneHealth Providers
- 30 Specialties
- 25 Locations
- Epic Enterprise EHR
Informatics Program: Best Practices

• Integrated
  – Traditional IT
  – Clinical
• Communication
  – Bidirectional
  – Translators
• Advocates
  – Patients, Users, System
Informatics Program: Lessons Learned

• Quickly Removed from Departments
  – Loose Connections
    • Work flows
    • Credibility
  – Decreased Communication
  – Loss of On-going Clinical Training
• No Dedicated Clinical Informatics Team
Informatics Program: Challenges

• Incorporating Clinicians into IT
  – Need IT Education
    • Project Management
    • Change Management
    • Infrastructure Basics
  – Clinicians as Healers
Informatics Program: Future Opportunities

• Greater Inclusion
  – Super Users
  – Physician Builders
  – Rounding
  – Integration with Departments

• Organizational Ownership
  – Governance
  – Demand Management
  – Project Leads
Thank you ...
Questions

Jeremy Theal, MD, FRCPC | CMIO | North York General Hospital

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