

Transforming Health Care

Electronic documentation and physician order entry

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Bringing nurses back to the bedside



Computerized physician order entry “CPOE”



Objectives

- Present Statistical Data
- Present Methodology
- Identify Key Factors
- Define Multi-disciplinary Approach
- Share Critical Steps

Statistical Data



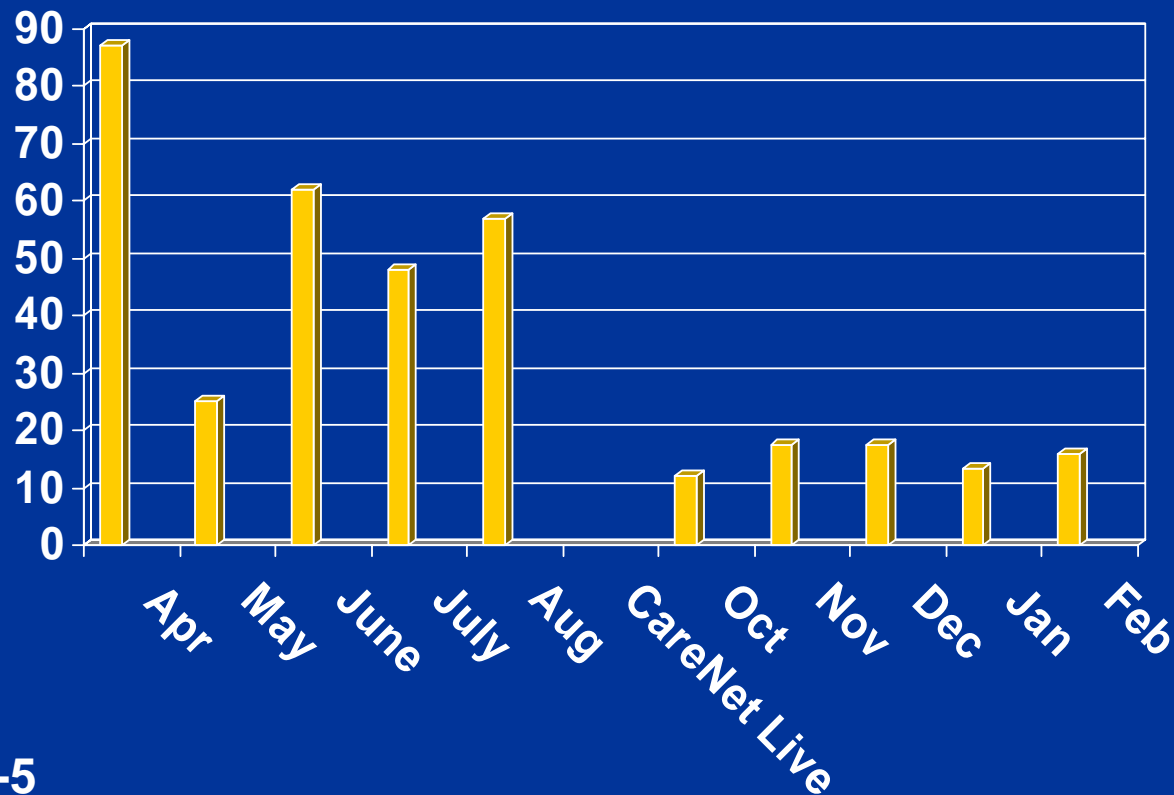
CPOE/Medication Integration

Impact: Summary Analysis

➤ MEDICATION OMISSIONS	76.8%	Decrease
➤ IMPROPER DOSE	85.7%	Decrease
➤ EXTRA DOSE	50%	Decrease
➤ UNAUTHORIZED DRUG	46.7%	Decrease
➤ WRONG TIME	27.3%	Increase
➤ DRUG CLARIFICATION	79.1%	Decrease

*Difference obtained from a 5 month average pre/post implementation statistics
Implemented September 2004
April to August 2004 and Oct 04 to Feb 05

Impact Verbal Orders not signed in 24 hours



2004-5

Pre data = obtained from 25 chart reviews monthly
Post data = obtained from all charts via CCL reports

5 month

Pre-average **Post-average**
55.8% **15.3%**

Methodology

GOALS:

Place “Patient First” - improve quality and increase safety

 Patient statues made to maintain focus

Bring nurses back to the bedside

 Real time charting “at the bedside”

Engage staff to willingly accept and support
change

Obtain 100% compliance— physician order entry

Key Factors

- Administrative Support
- Readiness Assessment
- Network of Champions
- Super-user Concept
- Communication
- Acceptance/Support

SMH Network of Champions

SMH Cabinet

SMH Champions Chairperson

Physician Advisory Committee

Business Metrics

Workflow Optimization

Communication

Educational

Policy & Procedure

Physician Education

Job Impact

Stakeholder Adoption

Financial Oversight

- Bench marking
- Readiness Assess
- Wireless Devices
- Report Cabinet
- Deployment strategy

- Unit operation
- Medication ordering
- Ancillary services

- Verbal
- Written
- Electronic

- Define learning plan
- Coordinate learning activities and materials needed
- Window Comp

Develop policy

Review policy

Educate

Engage

Supported

Order sets

- Job role changes
- Retention plan
- Incentive plans
- Rewards and recognition

- Identify stakeholder
- Manage superusers
- Team integration

- Charge capture completeness
- Cross walk appropriation

End Users

Champions Create a "Smooth Landing"

MULTI-DISCIPLINARY Approach

- Gather various departments together
- Explore and define the interconnectivity of various departments
- Increase awareness of each clinician's processes
- Create a united front



Critical Steps

ENGAGEMENT

(ALL STAKEHOLDER GROUPS)

BY

- Decision making process
- Educational plan
- Focus groups
- Multi-disciplinary groups
- Surveys
 - Readiness, pulse, post go-live
- Workflow optimization design groups

HOW

- Ice cream social
- Physician reception
- Open house
 - All shifts, prizes, demonstrations
- Quick response
- Device fair
- Train domain available

Physician Engagement/Acceptance

Committed Physician Champion

Identify key physicians, ex. highest admission rate & surgical cases per week

Attend all monthly physician divisional meetings on regular basis

Incorporate Divisional Chair of each physician group in constructing educational plan

Physician-led educational classes

Residents as Super-user, proctors, and support during go-live

Physician Advisory Committee (PAC) – System level and organizational level


Order set committees

Physician reception: 4 PPT presentations, formal and informal

CMEs (patient safety) granted for reception, educational classes, competency exams

Preventing Medication Errors

The "Old Fashioned" Way

 **UPMC HEALTH SYSTEM**

200 Lothrop Street
Pittsburgh, PA 15213-2582
Phone _____
MD # _____
DEA # _____

Name Be Schuse Age _____
Address _____ Date 4/2/02
Refill _____ times

Rx

Bactrim DS 800 mg x 5da
16

AB Fiorillo MD _____ MD
(signature) (signature)

In order for a brand name product to be dispensed, the prescriber must handwrite "Brand Necessary" or "Brand Medically Necessary" in the space below.

Not valid for Schedule II drugs FORM 1986-0000-1100 ITEM 05295

The "New and Improved" Method

UPMC Health System
Solano, Fiorillo, Coyle, Schmeltz, & Assoc
1st Floor University Ctr., 120 Lytton Avenue
Pittsburgh, PA 15213
Phone: (412) 647-4545 Fax: (412) 647-4505

Patient Name: TEST, AGAIN

Birthdate: 05/01/1954 Age: 48 Years Sex: Male

Allergies: penicillin, Hytrin, Animal Dander, Grass, pcn

Pharmacist please note --- Allergy list may be incomplete.

Patient Address: 521 MAIN STREET Greensburg, PA 15601 Home Phone: (724)858-1000 Work Phone: (814)938-1881

Primary Health Plan: Policy/Group #: /
Secondary Health Plan: Policy/Group #: /

Prescription Details

Rx: Bactrim DS 800 mg-160 mg oral tablet Start Date: 01/21/2003

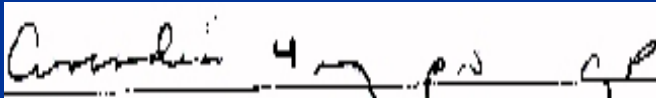
SIG: 1 tab(s) By Mouth BID 5 Day(s)
Dispense: 10 tab(s) (one-zero)
Refill: 0 (zero)
DAW?: Substitution Permissible

THERE ARE NO PRESCRIPTIONS BEYOND THIS LINE

AB Fiorillo License #: MD032056E
FIORILLO, ANTHONY B 01/21/2003 DEA#:

****SUBSTITUTION PERMISSIBLE****
IN ORDER FOR A BRAND NAME PRODUCT TO BE DISPENSED, THE PRESCRIBER MUST HANDWRITE "BRAND NECESSARY" OR "BRAND MEDICALLY NECESSARY" IN THE SPACE BELOW.

Medical Errors: What is Known



Avandia 4 mg po qd

Avandia



Tequin 400mg PO qd

Tequin

CHANGE ACCEPTANCE

Concept

- Guide physicians to accept change
- Encourage physicians to embrace change
- Display improved functionality or processes
- Select enthusiastic Champions
- Communicate honestly
- Caution on number of competing changes at one time

Process

- Make initial contact
- Increase awareness
- Clarify to improve understanding
- Experiment/trial new concept or idea
- Obtain buy-in that new innovation is better than present process
- Encourage ownership
- Share talking points

***Note: Process of acceptance very individualized and varies among different departments

COMMUNICATION

MEETINGS

- Nursing Leadership
- Professional Council
- Physician/Departmental by Service
- Management Forum
- Inpatient Unit/Departmental

*eRecord routine item on all monthly agendas

NEWS LETTERS

- UPMC Extra, SMH insert
- CareNet: What's coming
- FAQs published
- Patient admission packs

POSTERS

- 11 x 14
- 13 X 19
- 24 X 36

- Lanyards
- Buttons
- T-Shirts

TECHNOLOGY

- CareNet commercial
- Sensitivity presentation/Patient First motto
- Electronic eRecord newsletters
- Tips of the day/post go-live
- Issue Update list/post go-live

Variables that Determine Rate of Adoption

I. Perceived Attributes of Innovations

Relative advantage
Compatibility
Complexity
Triability
Observability

II. Type of Innovation-Decision

Optional
Collective
Authority

III. Communication Channels

IV. Nature of the Social System

V. Extent of Change Agents' Promotion Efforts

Rate of Adoption of Innovations

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graph LR; I["I. Perceived Attributes of Innovations"] --> R["Rate of Adoption of Innovations"]; II["II. Type of Innovation-Decision"] --> R; III["III. Communication Channels"] --> R; IV["IV. Nature of the Social System"] --> R; V["V. Extent of Change Agents' Promotion Efforts"] --> R;
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Figure 3-1

Diffusion of Innovations, 4th Edition by Everett M. Rogers (Figure 6-1, p 207). Copyright© 1995 by Everet M. Rogers. Copyright © 1962,1971, 1983 by The Free Press. Reprinted with the permission of The Free Press, a Division of Simon & Schuster.

eRecord Communication



Questions



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