Indian Health Service
Bar Coded Medication Administration
(BCMA)

RPMS EHR

Electronic Health Record

Superior Health Information Management
Now and for the Future

Really Powerful at Measuring Stuff

IHIMC
Thursday December, 18 2008
2:45 – 3:45 PM

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BCMA – What Is It?

- BCMA Uses Modern Technology to Address the Serious Issue of Inpatient Medication Errors

- BCMA Ensures that Each Patient Receives:
  - Correct Medication
  - Correct Dose
  - Correct Time

- Visually Alerts Clinicians when the Proper Conditions Are Not Met

The Right Drug, in the Right Does, at the Right Time, to the Right Patient

- Nurses Use Wireless Handheld Bar Code Reader
- Matches Bar Code to Patient's Wrist Band with Bar Code Imprinted on Every Medication Dose
- VA has Reduced Occurrence of Medication Errors by Two-Thirds through use of BCMA

BCMA Objective is to Improve Quality of Care

- Except for VA - Inpatient Medication Errors Occur at Rate of 1 in 6.5 Hospitalizations (Bates and Leape)

- Clinicians Have Immediate Access to Patient and Drug Information at Point of Care

- Decision-Making Capabilities are Improved

- Communication between Nurses, Pharmacists, and Physicians is Enhanced

BCMA Objectives (continued)

- Enhance Accuracy
  - Drug – Dose – Patient – Route – Time
  - Order – Dispense - Administer
  - Physician – Pharmacist – Nurse - Patient
- Reduce Time to Administer Missing Medications
- Improve Documentation Efficiency

BCMA Sites

- Fort Defiance Indian Hospital*
- Cherokee Indian Hospital*

"Inpatient Slave Driver Work-a-Thon"

"The Best Tech Writer in the World"

EHR for Inpatient Phase XI & XII BCMA

- XI - On-site BCMA Setup
- XII - On-site BCMA Training & Go-Live
- I – X
  - Inpatient Pharmacy
  - Computer Generated MAR
  - CPOE Medications

Lessons Learned
"Systems Approach"

Background (BCMA)

- VA Nurse Noticed Bar Coding Used by Rental Car Companies to Track Vehicles
- Bar Coding Could Enhance Patient Safety through Series of Checks and Balances
- Augments DOES NOT Replace Clinical Judgment
- BCMA began in 1999
- Throughout all of VA by 2003
- 600,000 Medication Doses Administered through use of BCMA Every Day

Background (CPRS)

- Integrated Computerized Patient Record System (CPRS)
- Enter, Review, Update all Order-Related Information
- Lab, Medication, Diets, Radiology, Procedures
- Allergies and Adverse Reactions
- Consults
- Progress Notes
- Diagnoses
- Discharge Summaries

BCMA Integral Part of EHR

- Nurses Administer all Medications to include IV Piggy-Back & IV Large Volume
- All Information is Documented with Time Stamp for Improved Accuracy
- Documented Administration is Available to all Clinicians as Part of Integrated Record

Failure Mode Analysis Effect
VA Bar Code Resource Office (BCRO)

- Failure to Bar Code Patient Wrist Band
  - Wrist Band
  - Printers
  - "Best in Breed Products"
- Failure to Bar Code Product
  - Track Problematic Bar Code Products
- BCMA Coordinator
  - Primary Contact and Liaison for all BCMA Issues
- BCMA Multi-Disciplinary Committee

Failure Mode Analysis Effect
VA Bar Code Resource Office (BCRO)

- Policies and Procedure to Optimize BCMA Use and Plan for Enhancements

- Test Bar Coded Products before They Leave the Pharmacy

- Pharmacy's Work Should Reduce Number of Products That Do Not Scan at Point of Care

- Wireless Dead Spots and Faulty Equipment

Failure Mode Analysis Effect
VA Bar Code Resource Office (BCRO)

- Improve Software and Hardware Interaction by the End User

- Standardize Practices to Improve BCMA Clinical Business Practices to Check and Validate Bar-Coded Products before they Reach Point of Care

- Multi-Disciplinary Approach to the Implementation and Upgrades of BCMA is Extremely Important

Job Title: BCMA (Bar Code Medication Administration) Coordinator

Description: Acts as liaison between Bar Code Resource Office, facility and VISN level management.
Serves as a liaison between administration, clinical staff, and IRM regarding BCMA and the medication management process.
Maintains a current knowledge of trends and issues in health care.
Monitors and reports effectiveness of change outcomes to local management and national oversight groups.
Reports status and issues to local management and National Barcode Resource Office .
Recommends local procedural and policy changes as appropriate.
Disseminates information to end users on policies and procedures relevant to BCMA and the medication management process.
Participates in surveys and questionnaires as requested.
Tests and verifies updates, patches, and new releases to BCMA and associated packages prior to activation.
Facilitates training, installation, implementation, maintenance, and overall use of BCMA throughout the medical center.
Provides user support to nursing, pharmacy, and other service lines by troubleshooting operational issues.
Provides initial and ongoing staff assessment of ergonomics and usability issues as related to BCMA hardware and software.
Has in-depth knowledge of software package interdependencies between VistA, CPRS, Inpatient Medications, other software applications, and BCMA.
Plans and ensures initial and ongoing training for all BCMA users by working with facility nursing staff and affiliated Nursing Schools for the training of nursing students.
Designs, develops, updates and maintains training documents within the facility.
Participates in the National BCMA conference calls and training initiatives.
Maintains current facility enrollments in BCMA National and local mail groups
Support the non mandated applications for troubleshooting - WMA, CareVue, CareAssist.
Collaborates with EVS (Enterprise VistA Support) and local IT staff to resolve BCMA issues.
Completes self-assessment guide and submits reports.
Develops, implements, and monitors a performance improvement plan for the medication management process as it relates to BCMA.
Actively participates in the subcommittee of the Local Facilities Clinical Executive Board.
Co-chair the Clinical Bar Code Multidisciplinary Committee.
Has the opportunity and interest to participate at a local and national level in demonstrating BCMA at the medical center and conferences - innovative ideas, research aspects.

BCMA Coordinator Qualifications:

- Master Degree in Nursing
- Minimum of five years successful nursing practice, one to three of which should be working with BCMA
- Has knowledge and skills in the science of informatics and is an experienced clinician
- Demonstrates the ability to develop an educational plan and clearly impart subject matter
- Demonstrates knowledge in identifying and solving software problems
- Commitment to the philosophies of quality patient care and staff education
- Excellent written and verbal communication skills

VA Information Resource Center

Using Human Factors Principles in the (Re)Design of Bar Code Medication Administration
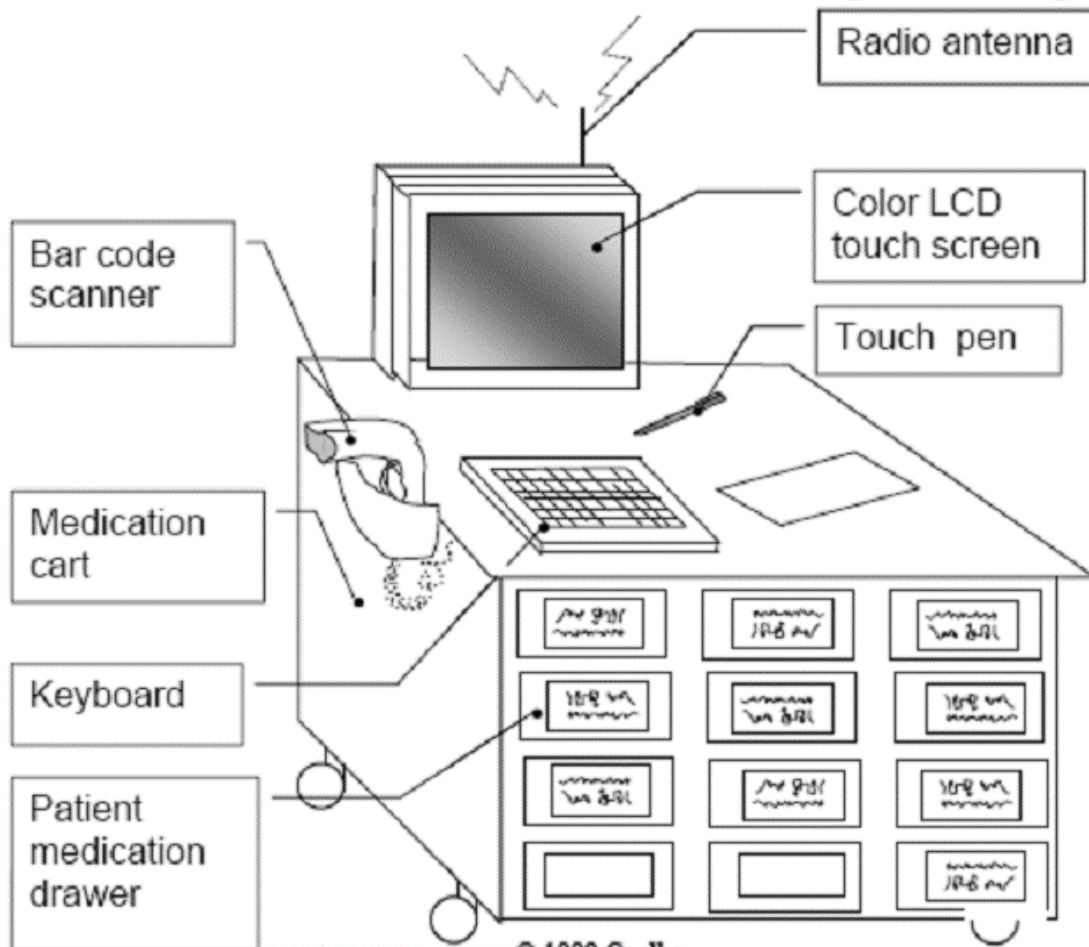
Emily S. Patterson, PhD

Research Scientist

VA Getting at Patient Safety (GAPS) Center

Cincinnati VAMC

The Ohio State University

VIReC
RESEARCHERS' GUIDE TO VA DATA

Bar Code Medication Administration (BCMA)

Radio antenna

Color LCD touch screen

Touch pen

Bar code scanner

Medication cart
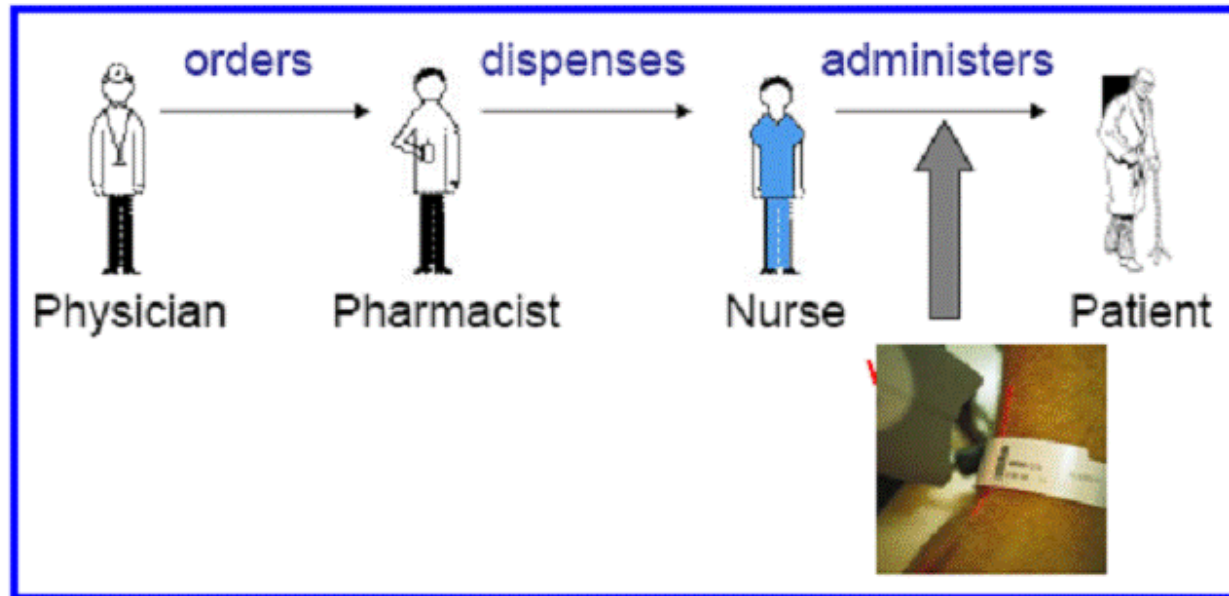
Keyboard

Patient medication drawer

© 1999 Coelho

BCMA Objectives

- Enhance accuracy

drug
dose
patient
route
time

- Reduce time to administer missing medications
- Improve documentation efficiency

(From training materials)

Missing Dose   Med Log   Med Admin History   Allergies   CPRS Med Order

ITANA,(UTAH)JOHNNY (MALE)

= 1/
ht = 1
tion =

Virtual Due List Parameters:		Schedule Types:	
Start Time:	Stop Time:	☑ Continuous	☑ On-Call
03/12@0900 ▾	03/12@1100 ▾	☑ PRN	☑ One-Time

ERGIES: strawberries   ADRs: No ADRs on file

t..	Ver	Hsm	Type	Active Medication	Dosage	Ro...	Admin Time	Last Action
xxx			P	ACETAMINOPHEN TAB ACETAMINOPHEN 325MG TAB prn pain	325-650 mg, Q6H PRN	PO		3/11/02@1001 HELD
	DD		C	ARTIFICIAL TEARS SOLN,OPH ARTIFICIAL TEARS /ML ONLY WHILE PATIENT IS AWAKE	2 DROPS, Q2H	OU	03/12@0900	3/11/02@1001 REFUSED
	DD		C	ARTIFICIAL TEARS SOLN,OPH ARTIFICIAL TEARS /ML ONLY WHILE PATIENT IS AWAKE	2 DROPS, Q2H	OU	03/12@1100	3/11/02@1001 REFUSED
	DD		O	DIGOXIN TAB DIGOXIN 0.125MG TAB	0.125MG, STAT	PO		3/6/02@1350 GIVEN
xxx			OC	FUROSEMIDE TAB FUROSEMIDE 20 MG 30 MINUTES PRIOR TO CISPLATIN	20MG, ON CALL	PO		3/4/02@0931 GIVEN
	DD		O	HALOPERIDOL TAB HALOPERIDOL 2MG TAB	2MG, NOW	PO		2/4/02@1357 GIVEN
	DD		O	LORAZEPAM INJ LORAZEPAM 2MG/ML 1ML TUBEX	1MG, NOW	IM		3/5/02@0908 GIVEN
	DD		O	SODIUM BIPHOSPHATE/SODIUM PHOSP... FLEETS ENEMA 4.5 OZ	1 ENEMA, STAT	RTL		1/30/02@1207 GIVEN

Unit Dose   🟢 IVP/IVPB   🟢 IV

nner
us: **Not Ready**

Scan Medication Bar Code:

ALBANY, NY   Server Time: 3/12/02 10:58

FICTITIOUS PATIENT RECORD

Literature Review: Evidence for Effectiveness
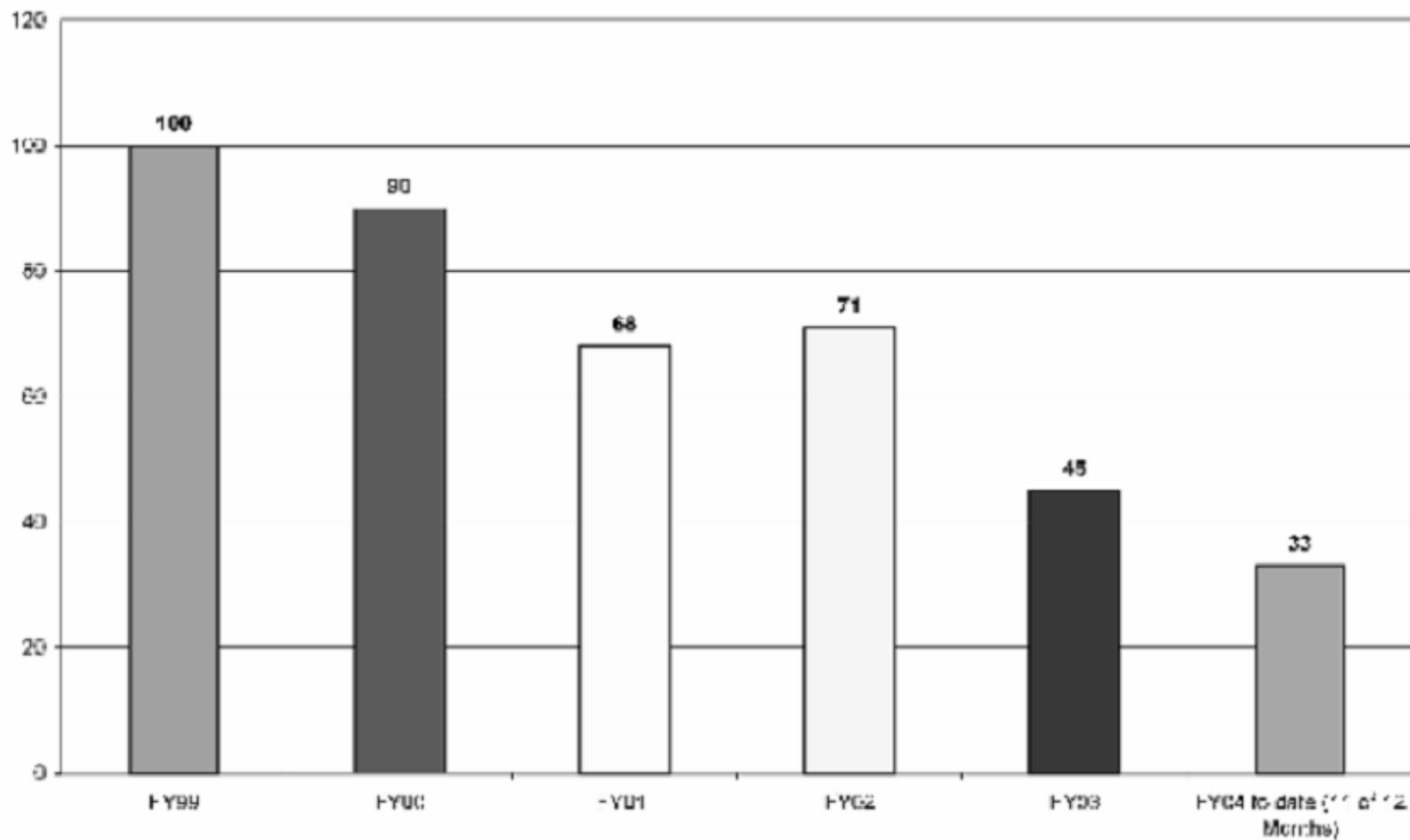## BCMA: Topeka VAMC

Reported Error Rate Percent
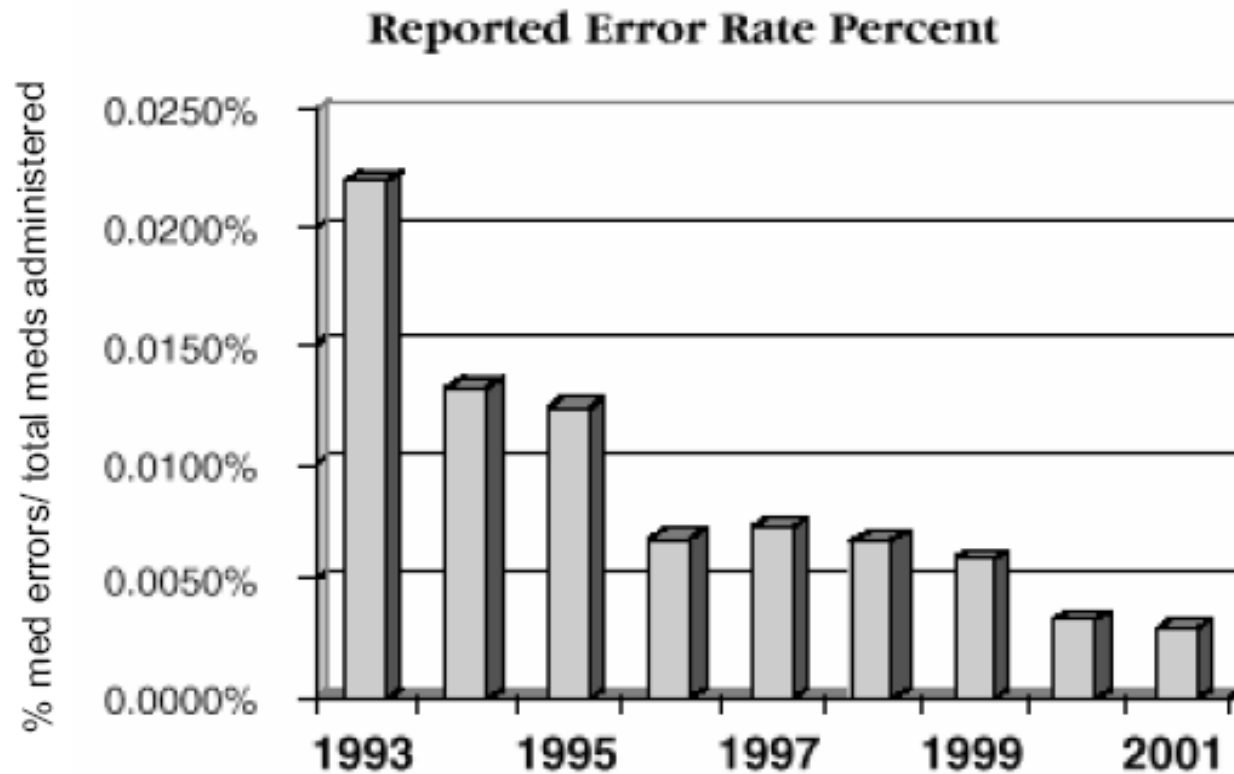
(Johnson, 2002)

Literature Review: Evidence for Effectiveness
BCMA: Martinsburg VAMC

Reported medication errors.

(Coyle & Heinen, 2005)

Literature Review: Evidence for Effectiveness
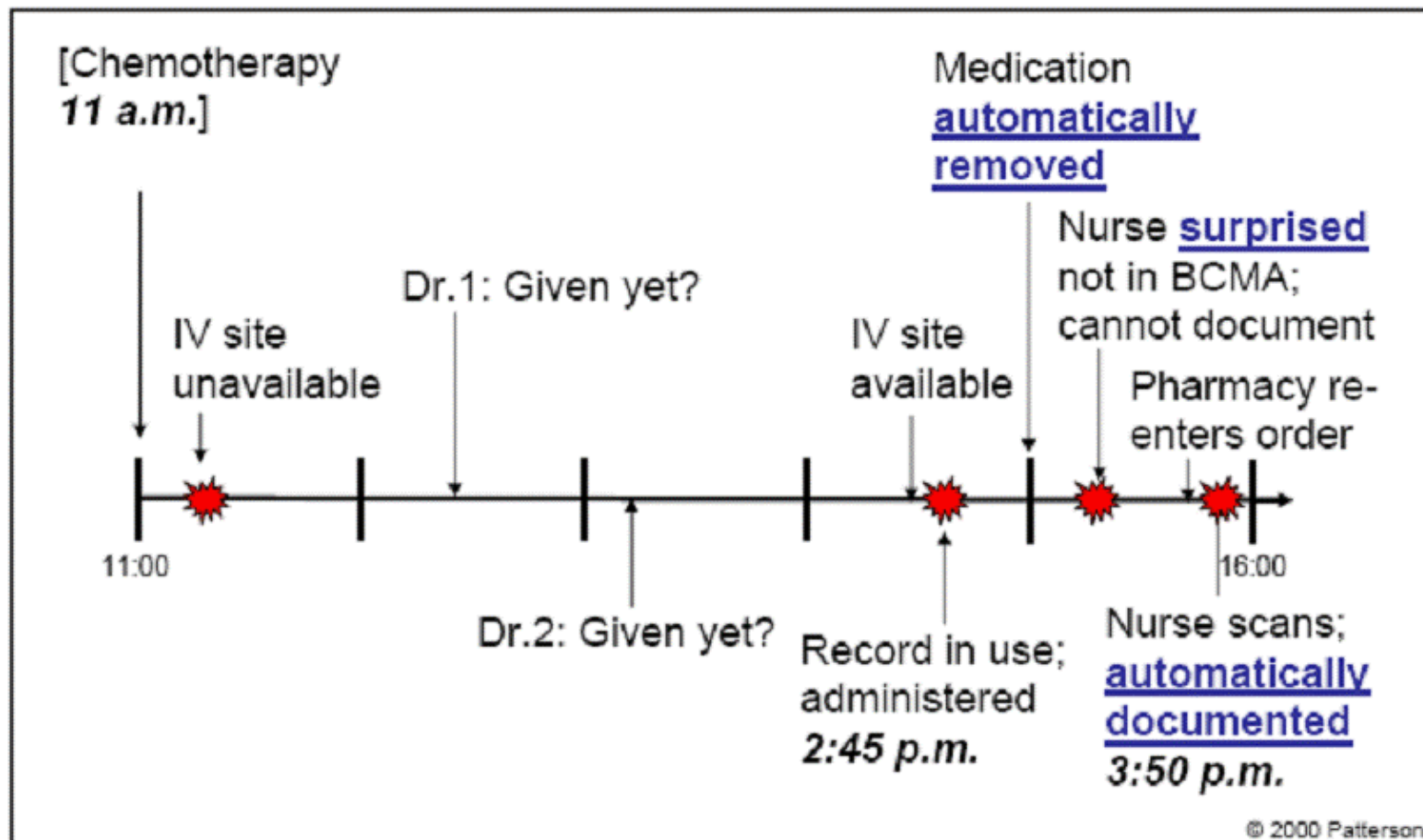## BCMA: Asheville VAMC 1/2001

"Has BCMA improved patient safety?"
- – 19% yes
- – 52% partially
- – 28% no

Survey:

- N = 54
- 45% response rate
- Convenience sample of nursing staff

VIReC

1) "Automation Surprise" with BCMA

[Chemotherapy 11 a.m.]

Medication automatically removed

Nurse surprised not in BCMA; cannot document

Dr.1: Given yet?

IV site unavailable

IV site available

Pharmacy re-enters order

11:00

16:00

Dr.2: Given yet?

Record in use; administered 2:45 p.m.

Nurse scans; automatically documented 3:50 p.m.

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RESEARCHERS' GUIDE TO VA DATA

2) Degraded team coordination

orders → dispenses → administers

Physician   Pharmacist   Nurse   Patient

Are they ready?

No pending, discontinued information
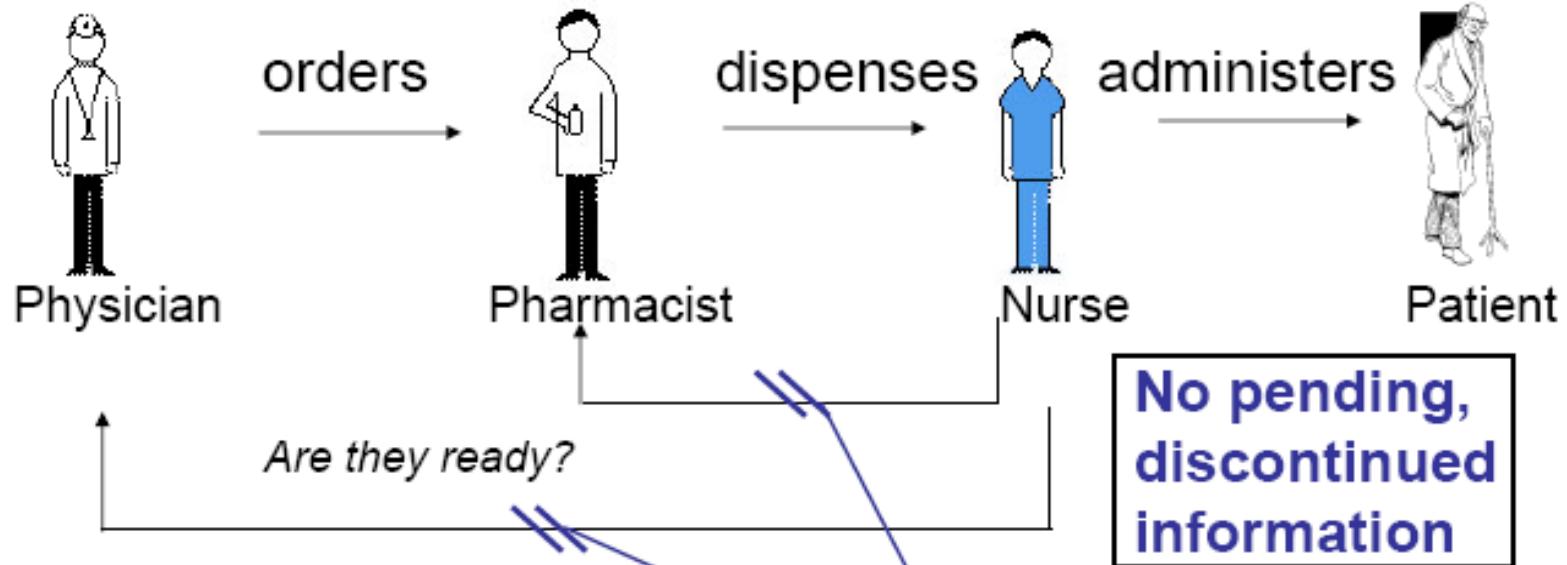
Do expired orders need to be continued?

Can you co-sign?

Can you order these?

Are you sure?

FICTITIOUS PATIENT RECORD

© 2000 Patterson

"Best Practice" Recommendations

Topic	Best Practice Recommendation
Implementation/ continuous improvement	1. Standing interdisciplinary committee
Training	2. Train all nurses; cross-train others
Troubleshooting	3. Communicate known problems 4. Contact information for types of problems
Contingency planning	5. No "double documentation" as a backup 6. Schedule downtimes to minimize disruptions
Equipment maintenance	7. Swap broken equipment with backup unit 8. Procedures to clean equipment
Medication administration	9. Scan barcoded wristbands and medications 10. Caregiver documents at time of administration 11. Verify allergy information displayed in BCMA 12. Use printed worksheet as overview 13. Print "missed meds report" once a shift 14. Alert nurses to new STAT orders
Wristband maintenance	15. Periodic replacement of wristbands

VIReC
RESEARCHERS' GUIDE TO VA DATA

Indian Health Service
Bar Coded Medication Administration
(BCMA)

Inpatient BCMA Implementation

RPMS EHR

Electronic Health Record

Fort Defiance Indian Health Hospital (FDIH)

Superior Health Information Management
Now and for the Future

BCMA Overview

- **BCMA Implementation**
  - **Improves medication administration safety**
  - **Primarily affects pharmacy and nursing clinical processes**
  - **Increases demands of IT staff - support of software and hardware**
  - **Impacts physician medication order entry; process becomes "stringent"**
  - **Impacts Medical Record processes**
  - **Impacted Coders (unexpected)**

- **BCMA Implementation Team**
  - **Clinical Applications Coordinators (RN, Podiatrist)**
  - **Inpatient Pharmacy AdPAC (Individual changed 3 times)**
  - **Information Technology Staff (Site Manager; RPMS, wireless and sever specialists)**
  - **Medication Error Review Committee (CAC was representative)**

BCMA Timeline

- 2004 Dec - VA Phoenix Site visit

- 2005 May - E.H.R rollout starts with Inpatient Nursing
        Aug - VA Prescott, AZ site visit
        Dec - Assessments of nursing workflow and equipment
                requirements; BCMA equipment ordered

- 2006 Mar - Printed MAR
        Aug - Physician order entry via E.H.R.
        Dec - BCMA implementation delayed

- 2007 Feb - BCMA Alpha Testing
        July - BCMA Super User and Nursing/RT End User
                training
        Aug - BCMA Go Live

BCMA Preparation

- **VA Site Visits**
  - Phoenix, AZ Dec 2004
  - Prescott, AZ Aug 2005
    - Gain insight into VA E.H.R. and BCMA technology
    - Classroom demonstration of inpatient EHR and BCMA documentation
    - Observed BCMA medication pass
    - Inpatient Pharmacy tour with pre-pack, cart fills and label generation demonstrations
    - Review policy/procedures; question and answer sessions

- **VA Bar Coding Conference, July 2007**
  - Broaden knowledge of VA BCMA Technology
  - Established resource contacts
  - VA BCMA Helpdesk
  - VA ListServe and VA Approved Devices List

BCMA Alpha Testing

- Alpha BCMA Testing

    - Software installed on Test System
    - Identified issues with BCMA software
        - Division Number – Fort Defiance and NAHATA DZIIL had the same #
        - Pediatric age did not display
    - Identified issue with ADT
        - Unable to print armbands

BCMA – Nursing Preparation

- Business Processes
  - Assess equipment requirement
    - Med carts – type, size, number
    - Scanners – wired or wireless
    - Staff numbers
    - Work space - layout, storage areas, plug in points
    - Budget
  - Policies and procedures
    - Review and revise
    - Contingency plan in event of RPMS or BCMA downtime
    - BCMA Competency

BCMA - Nursing Preparation

- Clinical Processes
  - Printed MAR
    - Required step to "test" medication orders
    - Correct medication order completion in the pharmacy package is essential for medications to appear and scan correctly in BCMA
    - Nursing critiqued medication orders on the MAR
    - Confusing/inaccurate order display – nursing notified pharmacy for correction
    - Pharmacy then reviewed their processes - quick orders, schedules, order processing steps

BCMA – Nursing Preparation

- **Clinical Processes**
  - Immunizations
    - EHR / Kardex vs. BCMA

  - IV Fluids Records
    - Maintain using current paper forms
    - Document in E.H.R. Progress Note
    - Document in BCMA

  - Omnicell Medications
    - PRN/Controls – leave in Omnicell or store in Med carts
    - Late admissions – RN stock med cart or use med override
    - Medication Override List justification - "Not in med cart"
      - "Late admit"

BCMA – Pharmacy Preparation

- Business Processes
  - Assess equipment requirement
    - IV Label printer
    - Medication Label printer
    - Unit dose and bar code dispense machine

  - Policies and procedures
    - Review and revise
    - Contingency plan in event of RPMS or BCMA downtime
    - BCMA Competency

BCMA – Pharmacy Preparation

Clinical Processes

- Scan all unit dose medication NDC barcodes into RPMS Synonym Drug File

  (Limited testing of scanning medications)
- Medication order completion process in pharmacy package (Printed MAR)
- EHR. medication orders (quick orders, IVs etc)
  - Clarity for ordering provider
  - Clarity to nursing when viewing – particularly with display in BCMA
- 24/7 hour pharmacy coverage
- Medication Cart
  - Pharmacy Cart Exchange vs. RN Med Cart Fill from Omnicell
  - Cart Exchange - time that fits with pharmacy and nursing workflow

BCMA – IT Preparation

- Install software on "train" and "live" systems
- Wireless system – access point, configure equipment etc
- Servers
- Printers
  - Configure print formats, test printing
  - Setup defaults in packages as applicable
    - Medication Label and IV Label Printer
    - Arm band printers
    - RPMS Printers for BCMA reports
    - Medication Label printer
    - IV Label printer

BCMA – Medical Records

- Business Processes

  - ADT
    - Admission of patient into ADT package directly impacts delivery of patient care
    - Pharmacy order processing cannot occur until the after the patient is admitted
    - With BCMA this process had to become more timely
    - Print armband at this prompt

  - Arm band printers
    - Train staff on equipment
    - Order arm band supply

  - Paper Medical Record
    - printed and handwritten MAR

BCMA – Other Groups

- Unit Clerks
  - Review workflow and process changes
- Med Error Review Committee
- Inpatient Safety Committee
  - Medication error review and prevention
  - Optimize E.H.R. and BCMA
  - Improve medication order entry processes
  - "Bullet proof" orders

BCMA – CAC

- Alpha Testing
- BCMA Training Preparation
  - Used Training Database
  - Order and process demo patient medication orders
  - Prepare barcode kits for training station
- BCMA Staff Training
- BCMA Policy/Procedure
- BCMA Competency
- BCMA parameters set-up
  - ADPAC also given parameter access

BCMA Equipment

- Equipment
  - Arm bands
  - Arm band printers
    - Located in ER, Inpatient Admissions, Nursing Units
  - Barcode scanner - wireless
  - Medication carts
    - Laptop with BCMA and E.H.R software
    - Scanners
  - "COWS" (Computer on Wheels)
    - Laptop and scanner (for PRN and IV administration)
  - MAR label printer
    - Nursing units and pharmacy
  - Pharmacy barcode pre-pack unit and program
  - Pharmacy IV Label Printer
  - RPMS device printer (for BCMA reports)

BCMA Training

- **General Comments**
  - July 2007, prior to Go Live
  - Group classroom session
  - Conducted away from clinical area
  - Staff scheduled for training – no clinical duties on day of training
  - All sessions completed discussions on clinical workflow, policies and procedures
- **Super User Training (Medsphere)**
  - Four days
  - Goal – one Super User per shift
  - 10 RN, 2 RTs, Pharmacy AdPac, CAC
  - Focus Content:
    - Physician order entry process
    - Pharmacy medication completion in pharmacy package
    - Nursing medication order verification process
    - Medication administration (Hands on)
    - Troubleshooting all of the above

BCMA Training

- Nursing/RT End User Training (CAC/Super Users)
  - One day
  - BCMA Overview
  - Nursing medication order verification process (in E.H.R)
  - Med administration practice
  - Troubleshooting BCMA issues (medication display/scanning issues)
  - Review of Contingency Plan

- Inpatient Pharmacy Staff Training (ADPAC/CAC)
  - Done after implementation (Lesson learned)
  - BCMA – how it works and what nursing "sees"
  - Review nursing processes particularly order verification process
  - Review proper pharmacy completion of Inpatient EHR medication orders **
  - Specific issues – start/stop times & dates; IV vs Unit Dose; PRN; K Riderorders; significance of labels; IV orders
  - How to assist troubleshooting BCMA issues

BCMA Go Live

- Aug 2007
  - Med/Surg/Pediatric Unit (20 beds)
  - ICU (4 beds)
  - Each RN went "Live" with one patient (6 pts)
  - Nursing staff support on both shifts
    - Medsphere (K.Zipper)
    - CAC/Pharmacy ADPAC
    - Super User (scheduled as supernumery)
    - Phone contact
  - Pharmacy staff support – Pharmacy ADPC /CAC
  - BCMA competencies started during go live week

BCMA Lessons Learned

- Staff Training
  - Nursing/RT
    - One day training too long
    - Medication order verification process – promote this more during E.H.R. implementation

  - Pharmacy staff was "overlooked"
    - Order processing was not consistent – this impacted display of orders in BCMA
    - Pharmacy not exposed to BCMA application, how it worked, how their work processes directly impacted on BCMA, nursing workflow and patient care.

BCMA Lessons Learned

- NURSING
  - "Letting go" of the MAR was difficult; trial and error with preferred BCMA report
  - Clinical workflow habits had to be "improved" upon to incorporate BCMA
    - Collect all meds before leaving workstation (Omnicell®, insulin, antibiotics etc)
    - Med cart stocked with equipment (IV bags, tubing, med cups
    - If assessing pt prior to med passes – ask if pain meds needed; check IV bag
    - Log on time (up to 7 minutes) – frustrated and slowed staff
  - Scanning issues – patient arm band and IV bag
  - Documentation with BCMA – once patient discharged unable to document PRN effectives, IV fluids, patches
  - Medication errors – occurred when BCMA process was bypassed
- PHARMACY
  - Medication had not be scanned correctly into system
  - Phoenix, Feb 2008 - focus was finding solutions to specific issues

BCMA Lessons Learned

IT ISSUES

- Arm band barcode scanning issues
  - required reconfiguring to a smaller barcode

- Wireless Network – need to improve speed
  - Changed PC to DELL D830 with the built in wireless card(54mb)
  - Optimized the settings on the laptop
    - Turned off System Restore
    - Adjusted performance settings for Performance
    - Uninstalled unnecessary applications
    - Manually entered DNS and BCMA server into the host file
    - Made EHR user only user able to log on to the COW
  - Separated the Data and Voice VLANs on the Access points
  - Put more access Points in the COW areas to evenly distribute wireless connections
  - Setup multicast server for wireless on the core chassis

BCMA Lessons Learned

- MEDICAL RECORDS
  - Accidental errors in ADT could have a negative impact medication orders and therefore BCMA.
  - Imperative that CAC or AdPac be contacted

- CODERS
  - BCMA appeared to be recognized as an ancillary service
  - BCMA pain scores entered via BCMA created "extra" visits
  - Correct by OIT (Phil Salmon)

The Indian Health Service

Inpatient BCMA Implementation
RPMS EHR
Electronic Health Record

Cherokee Indian Hospital

Superior Health Information Management
Now and for the Future

BCMA Preparation

- VA Bar Coding Conference – July 2007
  - Gain Insight into VA BCMA Technology
  - Collaborate with representatives from VA sites across the country
  - Obtain contact information from several VA sites and VA research personnel to assist in BCMA implementation
  - Acquire VA Approved Devices List with Research Analysis Information
  - Join VA Bar Coding Listserve

BCMA Preparation

- Gain insight and lessons learned from alpha BCMA IHS site – Fort Defiance
- Identify BCMA Implementation Team
  - BCMA Applications Coordinator(s)
  - BCMA Super End User(s)
  - Inpatient Pharmacy AdPAC and coAdPAC
  - Clinical Applications Coordinator
  - Information Technology
  - Quality and Improvement / Risk Manager
  - Inpatient Hospitalist Physician

BCMA Preparation

- Tour Asheville Veteran's Administration facility
  - 1st Visit – October 2007
    - Classroom review of inpatient EHR and BCMA documentation demonstration
  - 2nd Visit – September 2008
    - Live BCMA demonstration with AM Nursing medication pass
    - Inpatient Pharmacy tour with pre-pack, cart fill, missed dose tracking reports, and label generation demonstrations
    - Classroom review of BCMA and policy/procedure question and answer session

BCMA Preparation

- Order Equipment

  (VA Approved Device List Available)
  - Arm Band Printers (ER and Inpatient)

    (PCC+ with Laser Band paper OR Zebra printer)
  - Hand Held Barcode Scanners (Culver Group)
  - Pharmacy Barcode Pre-pack Program (Medi-Dose)
  - Medication Carts (Lionville)
  - Pharmacy IV Label Printer (Zebra)

- BCMA Software installed on Alpha Test System

BCMA Preparation

- Pharmacy
  - Scan all unit dose medication NDC barcodes into RPMS Synonym Drug File
  - 24 hour pharmacy coverage
    - Pharmacist VPN Access
    - Contract with 24 hour hospital pharmacy
  - Process Issues
    - Electronic MAR (implemented Jan 2006)
    - RN Cart Fill vs. Pharmacy Cart Fill
    - Ensure proper completion of medication orders
      - Essential for BCMA medications to appear and scan correctly

BCMA Preparation

- Inpatient Nursing
  - Process Issues
    - Eliminate paper Electronic MAR
    - Omnicell Profiling (PRN/Controls vs. Complete Cart Fills)
    - IV Fluid Records (Progress Note vs. BCMA)
    - Immunizations (Cardex/EHR vs. BCMA/EHR)
    - After Hours Medication Override List
    - Review and revise policies and procedures
- Quality and Improvement Manager and BCMA Implementation Team
  - Brainstorm potential issues with BCMA
  - BCMA Failure Mode Analysis

OIT On-site BCMA Setup

October 6 – 10, 2008

- Install Alpha Test System BCMA on training computers
- Troubleshoot Alpha system BCMA installation issues
  - Installation guide document prepared
- Review BCMA functionality
- Set up Alpha BCMA Parameters – BCMA Coordinators
- Install BCMA software on Live system
- Set up Live BCMA Parameters – BCMA Coordinators
- Inpatient nursing training and go-live week set up
  - Order and Process demo patient medication orders
  - Prepare barcode kits for each training station

BCMA Lessons Learned

- Patient chart number – facility specific number prefix required
- VA Med Order button not supported in IHS BCMA version
- Arm band barcode scanning issues
- IV Pharmacy Label barcode printer essential to print individualized IVPB barcode labels
- IV Fluid Available Bags – Ward Stock
- Medication Admin Documentation Issues
- Pediatric patient BCMA issues – patch fix

BCMA Lessons Learned

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- VA Med Order button not supported in IHS BCMA version
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- IV Pharmacy Label barcode printer essential to print individualized IVPB barcode labels
- IV Fluid Available Bags – Ward Stock
- Medication Admin Documentation Issues
- Pediatric patient BCMA issues – patch fix

BCMA Lessons Learned

- Staff Training VERY Important
  - Nursing AND Pharmacy Staff
  - Ideal training setting
    - Group training
    - Away from patient care activities
    - Prior to BCMA implementation
  - Extra nursing staff coverage may be needed during training and initial implementation phases due to learning curve

Indian Health Service
Questions and Discussion

RPMS EHR

Electronic Health Record

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