



RESOURCE AND PATIENT MANAGEMENT SYSTEM

BCMA Super User, Coordinator, and Pharmacy Training, and Go Live

Announcement and Agenda

January 31 – February 5, 2016

Kanakanak Hospital
Dillingham, Alaska

Office of Information Technology
Division of Information Technology

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1.0 General Information

1.1 Background

Medication errors are common. The National Coordinating Council for Medication Error Reporting and Prevention defines a medication error as "...any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in control of the healthcare professional, patient, or consumer" (2004). According to the 1999 Institute of Medicine's (IOM) report "To Err is Human", medication errors often have tragic consequences for patients, approximately 20% which are life-threatening. Medication errors also result in great financial costs such as malpractice premiums and losses in worker productivity and cause substantial extra work for hospitals.

Serious medication errors result in preventable adverse drug events (ADE). It is estimated that errors from medication errors have led to 7000 deaths per year. (IOM, 1999). These errors usually result from poorly designed systems that do not prevent errors from occurring. Medication administration is an example of a multi-step system that because of its complexity can be a challenge to accomplish safety and without error. Errors resulting in preventable ADEs occur during the stages of (a) ordering, (b) transcription, (c) dispensing, (d) administration, and (e) documentation. Over 30% of these errors are committed at the point of administration (IOM, 1999).

Computerized Provider Order Entry (CPOE) and Bar Code Medication Administration (BCMA) are Health Information Technologies that have demonstrated a substantial decrease in medication errors. BCMA technology verifies medications by incorporating bar-code verification technology within an electronic medication administration record (eMAR) to prevent both administration and documentation errors. The eMAR helps reduce transcription errors by ensuring medications are tracked from the point of physician order, to the pharmacist, to the nurse administering the medication.

Federal regulations and professional societies have publically recommended or endorsed the use of BCMA for the purpose of improving medication safety and reducing errors. Recommendations and standards direct basic safe practices for medication administration concerning (a) basic safe practices for medication administration, (b) timing of medication administration, (c) time critical medication, and (d) missed or late administration of medications.

1.2 American Society of Health System Pharmacists

The 2012 American Society of Health-System Pharmacists (ASHP) Hospital Survey (Pedersen et. al., 2013) found that there is widespread use of Electronic Health Records (EHR), CPOE, BCMA, and Automated Dispensing Cabinets. More than two-thirds of hospitals were using BCMA in 2012. The Centers for Medicare and Medicaid Services (CMS) states that 10% is the minimum threshold for medication orders to be tracked via BCMA and eMAR. However, many of these hospitals were already operating at 90% (Neuenschwander, 2010).

1.3 The Leapfrog Group

Leapfrog Group's 2015 Hospital Survey is being used for the process of establishing a national standard for BCMA implementation. This standard will reflect both the use of BCMA and ensuring that hospitals have taken steps to minimize workarounds of using BCMA systems correctly

1.4 Department of Veterans Affairs

The Department of Veterans Affairs (VA) required all 172 Veterans Health Administration (VHA) hospitals to implement BCMA between 1998 and 2002, setting the National stage for BCMA patient safety. The Bar Code Resource Office (BCRO) supports the Food and Drug Administration's (FDA) regulatory language for drug labeling and works with the National Center for Patient Safety to reduce and prevent medication errors.

1.5 Food and Drug Administration

The FDA enacted regulation in 2004 requiring all manufacturers to label medications with a bar code specifying the National Drug Code for use with BCMA systems and to reduce errors.

1.6 Institute of Safe Medical Practices

The Institute for Safe Medical Practices in partnership with the American Hospital Association and Health Research and Educational Trust has published its "Pathways for Medication Safety: Assessing Bedside Barcoding Readiness" Toolkit". This tool assists hospitals to better understand their readiness as well as what is required for implementing a bar-coded drug administration system.

1.7 The ASHP Foundation

The ASHP Research and Education Foundation established a Pharmacist's Toolkit for "Implementing a Bar code Medication Safety Program in 2004.

1.8 American Academy of Nursing

The American Academy of Nursing, an independent affiliate of the American Nurses Association has endorsed the use of BCMA in Hospitals.

1.9 The Agency for Healthcare Research and Quality

The Agency for Healthcare Research and Quality (AHRQ) published its findings from the AHRQ Health IT Portfolio in 2008 “Using Barcode Medication Administration to Improve Quality and Safety”. AHRQ funded a diverse set of health IT projects to examine how applications such as barcoding can improved the quality, safety, efficiency and effectiveness of health care.

1.10 The Joint Commission

In 2004, A Joint Commission on Accreditation of Healthcare Organizations’ advisory committee included in its proposed Nation Patient Safety Goals that hospitals develop a plan for implementing bar code medication administration systems.

1.11 Office of the National Coordinator and CMS

Both the Office of the National Coordinator Health IT Certification Program and CMS have proposed adoption of eMAR criterion for Stage 2 and Stage 3 Meaningful Use. Since 2012, barcoding has been required for hospitals under Stage 2 meaningful use core measures. The eMAR Measure is now “Topped Out” meaning that the measure performance is so high and unvarying that meaningful improvement in performance can no longer be made.

1.12 Meaningful Use Stage 2 Final Rule

CMS published a final rule that specifies the Stage 2 criteria that eligible professionals (EP), eligible hospitals, and critical access hospitals (CAH) must meet in order to continue to participate in the Medicare and Medicaid EHR Incentive Programs. Through the Stage 2 requirements of the Medicare and Medicaid EHR Incentive Programs, CMS seeks to expand the meaningful use of certified EHR technology. Certified EHR technology used in a meaningful way is one piece of a broader health information technology infrastructure needed to reform the health care system and improve health care quality, efficiency, and patient safety.

This final rule specified the Stage 2 criteria that EPs, eligible hospitals, and CAHs must meet in order to qualify for Medicare and/or Medicaid EHR incentive payments. In addition, it specifies payment adjustments under Medicare for covered professional services and hospital services provided by EPs, eligible hospitals, and CAHs failing to demonstrate meaningful use of certified EHR technology and other program participation requirements. This final rule revises certain Stage 1 criteria, as finalized in the July 28, 2010 final rule, as well as criteria that apply regardless of Stage.

New Core and Menu Set Objectives and Measures for Stage 2:

Automatically track medication orders using an electronic medication administration record (eMAR)

(16)(i) Objective. Automatically track medications from order to administration using assistive technologies in conjunction with an electronic medication administration record (eMAR).

(ii) Measure. Subject to paragraph (c) of this section, more than 10 percent of medication orders created by authorized providers of the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period for which all doses are tracked using eMAR. (iii) Exclusion in accordance with paragraph (i)(2) of this section. Any eligible hospital or CAH with an average daily inpatient census of fewer than 10 patients.

1.13 BCMA Assistive Technology

BCMA assistive technology is a software application which is used by VHA facilities to document medication administration activities and reduce medication errors. Ensuring the software is usable is paramount to successful adoption by the end-users. The BCRO, using a Cognitive Engineer/Human Factors expert, has developed a structured process for performing usability assessments of new features under development. The following information is provided as a guide to assist the BCMA Software Development team in applying a structured process to future usability assessments:

1.14 Certification and Standards

The following is the corresponding certification and standards criteria for electronic health record technology that supports achieving the meaningful use of this objective.

§ 170.314(16) Inpatient setting only – electronic medication administration record

(i) In combination with an assistive technology that provides automated information on the “rights” specified in paragraphs (a)(16)(i)(A) through (E) of this section, enable a user to electronically verify the following before administering medication(s):

(A) Right patient. The patient to whom the medication is to be administered matches the medication to be administered.

(B) Right medication. The medication to be administered matches the medication ordered for the patient.

(C) Right dose. The dose of the medication to be administered matches the dose of the medication ordered for the patient.

(D) Right route. The route of medication delivery matches the route specified in the medication order.

(E) Right time. The time that the medication was ordered to be administered compared to the current time.

(ii) Right documentation. Electronically record the time and date in accordance with the standard specified in § 170.210(g), and user identification when a medication is administered.

*Depending on the type of certification issued to the EHR technology, it will also have been certified to the certification criterion adopted at 45 CFR 170.314 (g)(1), (g)(2), or both, in order to assist in the calculation of this meaningful use measure.

§ 170.210(g) Synchronized clocks

The date and time recorded utilize a system clock that has been synchronized following (RFC 1305) Network Time Protocol, (incorporated by reference in § 170.299) or (RFC 5905) Network Time Protocol Version 4, (incorporated by reference in § 170.299)

2.0 Purpose of Training

BCMA is an integral part of the EHR. Nurses administer medications, including IV piggy-back medications and IV large-volume medications through BCMA. All information is documented with a time stamp for improved accuracy of clinical information. The documented administration information is available throughout the medical center to any clinician or pharmacist as part of the integrated health record. Pharmacy and nursing staff members must collaborate closely with information management staff, if the medication administration arm of a hospital care system is to work optimally; just as rapid computer response time is crucial to the success of a computerized medication administration system. The purpose of this activity is to provide BCMA training to the BCMA Super User.

2.1 BCMA Coordinator

The BCMA Coordinator is responsible for developing and implementing processes to improve the safety, efficacy, and efficiency of medication management processes associated with BCMA. BCMA Coordinators should understand how the software functions and how pharmacy's finishing of orders affects what appears in BCMA. Coordinator responsibilities include but are not limited to:

- Acts as a liaison between the Indian Health Service (IHS) BCRO and facility level management.
- Serves as a liaison between administration, clinical staff, and IT regarding BCMA medication management process.
- Monitors and reports effectiveness of change outcomes to local management and national oversight groups.
- Recommends local procedural and policy changes as appropriate.
- Test and verifies updates, patches, and new releases of BEMC prior to activation.
- Disseminates information to end users on policies and procedures.
- Facilitates training, installation, maintenance, and overall use of BCMA throughout the hospital.
- Provides user support to nursing, pharmacy, and other service lines by troubleshooting operational issues.
- Plans and ensures initial ongoing training for all BCMA users, students, and temporary staff.
- Designs, develops, updates, and maintains training documents within the facility.
- Actively participates in local facility multidisciplinary committee.
- Participates in the national BCMA conference calls and training initiatives.
- Develops, implements, and monitors a performance improvement plan for the medication management process as it relates to BCMA.

2.2 BCMA Multidisciplinary Committee

The BCMA Multidisciplinary Committee provides ongoing multidisciplinary support to implement any necessary changes to improve the proper use of the software, affect oversight and maintenance of equipment, and provide guidance on business-related processes. This committee should meet monthly to resolve BCMA issues and is often a sub-committee of the Pharmacy and Therapeutics Committee. The BCMA Multidisciplinary Committee which comprise end users and affiliates who can act as change agents at the local facility. Both the BCMA Coordinator and BCMA Multidisciplinary Committee work together to ensure patient safety is optimized, and this teamwork is central to BCMA success.

BCMA Multidisciplinary Committee Responsibilities include but are not limited to:

- Oversee medication manage process and interdependencies.
- Create accountability and an ownership approach to BCMA use.
- Guide facility or health care direction.
- Assess, treats, and standardizes clinic, technical and operational direction.
- Recommend policy and procedural changes to optimize BCMA use.
- Centralize and streamlines systems and process channels.
- Provide guidance to facility sponsors and end users.
- Support and maintains best practice models.
- Provide early warning of performance deficiencies and makes recommendations for improving performance to achieve business results.
- Facilitate alignment of BCMA performance objectives with facility or health care system strategic goals.

BCMA Multidisciplinary Committee Membership should include:

- BCMA Coordinator
- Clinical Applications Coordinator (CAC)
- End users authorized to administer medications
- Information technology
- Inpatient pharmacy
- Union representatives if applicable
- Performance improvement
- Patient safety
- Respiratory therapy (if applicable)
- Chief of medical staff
- Nurse management

2.3 BCMA End User and Super User

A BCMA End User is an individual who uses BCMA for medication administration in a patient care setting.

A BCMA Super User is an individual who uses BCMA for medication administration in a patient care setting and also serves as a support resource to other BCMA users.

Verified medication orders become available in the nursing staff's point-of-care BCMA. The Virtual Due List (VDL) is the electronic counterpart of an eMAR, and is used to display medications and the appropriate administration time frame for each. Medications may be scanned and administered, following a medication orders verification by an end user nurse authorized to administer medications.

As a handheld bar code reader registers each medication, the software verifies the correct medication was ordered, administered on time, and measured in the correct dosage, while at the same time documenting the actual administration of the medication. This process ensures the *Five Rights* universal standard of medication administration is maintained. Once the medication administration procedure has been completed for a particular timeframe, the nurse uses the Missed Medication function to generate a report of omitted medications and takes steps to resolve any reported discrepancies.

Recording and reporting features of BCMA include:

- **VDL.** Records medications that need to be administered to a patient within the specific time parameters. These include active Continuous, PRN, On-Call, One-Time medication orders.
- **Due List Report.** Provides detailed information about active and future Unit Dose and IV Medication orders that are due for administering to a patient, within a specific timeframe during a 24-hour period.
- **Medication Administration History Report.** Lists the patient's Unit Dose and IV medication orders and any actions taken on the order.
- **Medication Log Report.** Displays a detailed history of actions taken on a patient's medication orders.
- **Missing Dose Requests.** Automatically alerts Pharmacy personnel of a Missing Dose order by printing requests for reissuing on a designated printer in the Pharmacy. This method minimizes the nurses' workload disruption to the Pharmacy and Nursing workflow. An email notification is also sent from the BCMA to the Pharmacy when a Missing Dose Request is submitted by a clinician.
- **Missed Medications Report.** Includes Continuous and One-Time Unit Dose and IV Piggyback medications that were not administered to a patient during a medication pass, within a specific timeframe, during a 24-hour period. This Report also includes Missing Dose Requests submitted to the Pharmacy.

- **PRN Effectiveness List.** Identifies PRN or *as needed* medication doses that require Effectiveness comments after they are given.
- **Medication Variance Log.** Logs medications given outside the medication administration window as Early or Late (depending on the site parameter settings), including the time it was scanned, and the reason it was administered early or late, any comments from the nurse, late PRN Effectiveness documentation, and event totals and percentages.
- **Patient Record Flag (PRF) Report.** Prints detailed information about any active PRF assignments associated with the current patient record.
- **Cover Sheet-Medication Overview Report.** Displays and groups active, expired or discontinued, and future expiring orders.
- **Cover Sheet-PRN Overview Report.** displays and groups active, expired or discontinued and future expiring orders with a schedule type of PRN for the current patient or by selected patients on a ward. For each group, the total number of orders per group is displayed in brackets next to the group heading.
- **Cover Sheet-IV Overview Report.** Displays and groups IV bag information on active, expired, and discontinued orders for the current patient or by selected patients on a ward. For each group, the total number of IV bags per group is displayed in brackets next to the group heading.
- **Cover Sheet-Expired/Discontinued/Expiring Orders Report.** Displays and groups expired and discontinued orders, as well as orders that will expire for the current patient or by selected patients on a ward. For each group, the total number of IV bags per group is displayed in brackets next to the group heading.
- **Medication Therapy Report.** Includes information similar to the Medication History Report but does not require a patient record to be open. The report allows searching by VA Drug Class, Orderable Item, or Dispense Drug within a specified date range and selected search criteria. This report can be run for the current patient or by selected patients on a ward.
- **IV Bag Status Report.** Provides status on IV bags, excluding available bags, by patient or by selected patients on a ward. This report allows the user to include/exclude completed, infusing, stopped, missing, held and refused IV bags. In addition, the user can include bags for which no action has been taken on order.
- **Unable to Scan (Detailed) Report.** Provides detailed information related to each *unable to scan* event for a selected ward/nurse unit, or for all wards. The report includes patient, date/time of unable to scan event, location, type of bar code failure, drug, user's name, reason for scanning failure and optional comments. The user can specify report selection criteria including start and stop date/time, type of scanning failure, and the unable to scan reason, in addition to up to three levels of sort fields.

- **Unable to Scan (Summary) Report.** Provides totals and percentages of wristband and medication bar codes scanned and when scanning is bypassed. The report will include totals and percentages for total wristband scanned, total wristbands bypassed, total medications scanned, and total medications bypassed. The user will be able to print the reports for the entire facility, by nurse unit/location or by ward.

3.0 VA-IHS BCMA Cross-Functional Team

3.1 Co-Chairs

Last Name	First Name	Title
Graves	Cathi	Senior Management Analyst, BCRO, Office of Informatics and Analytics (OIA), VHA
Taylor	David	BCMA Federal Lead, Office of Information Technology (OIT), IHS

3.2 Cross Functional Team Voting Members

Last Name	First Name	Title
Vacant (Vice) Curtis	Clayton, MD	VHA IHS Liaison and Information Technology (IT) Informatics
Patillo	Jackie	Acting Executive Director for Field Operations, OIT, VA
Graves	Cathi	Senior Management Analyst, BCRO, OIA, VHA
(A) Moore	Lori	Resource and Patient Management System (RPMS) Acting Investment Manager, OIT, IHS
Alcorn	Deborah	BCMA Co-Federal Lead, OIT, IHS

3.3 Cross Functional Team Standing Members

Last Name	First Name	Title
Alcorn	Deborah	BCMA Co-Federal Lead, OIT, IHS
Allen	Mike	BCMA Pharmacy Consultant, OIT, IHS
Bagby	Jonathan	Nurse Consultant, BCRO, OIA, VHA
Baylis	Randall	Clinical 1 Support Team, OIT, VA
Bishop	Bradley	Pharmacy Consultant, OIT, IHS
Bloch	Jaci	Clinical 1 Support Team, OIT, VA
Carlson	Russ	Deputy Director, BCRO, OIA, VHA
Connolly	Barbara	Clinical 1 Support Team, OIT, VA
Cook	Sean	Business Analyst, Data Networks Corporation (DNC) Contractor
Corma	Stephen	Pharmacist Consultant, BCRO, OIA, VHA
Cownie	Kevin	Clinical 3 Support Team, OIT, VA
Devlin	Vitalia	Clinical Product Support Division Director, OI&T, VA

Last Name	First Name	Title
Fox	Kirk	Clinical 1 Support Team, OIT,VA
Johnson	Dale	Clinical 2 Support Team, OIT, VA
Johnson	Katie	Chair, Pharmacy Professional Specialty Group, IHS
Linville	Kathleen	Clinical Product Support, OI&T, VA
Kost	Vivian	BCMA Nurse Consultant, MSC Contractor, IHS
Lyttle	Kim	Clinical 1 Support Team, OIT, VA
Mian	Naeem	Clinical 1 Support Team, OIT, VA
Nelson	Joe	VHA IHS Liaison and IT Informatics
Nixon	Graham	Applied Informatics Service (AIS), VHA
Northern	Wanda	AIS, VHA
Patten	Tracie	Chair, IHS National Pharmacy Council
Ray	Kathy	Clinicians' Information Management Technology Advisory Council Chair, Business Owner, IHS
Saddler	Chris	BCMA IT support, OIT, IHS
Scott	Hugh	VHA IHS Liaison and IT Informatics
Seburn	Cindy	Clinical 1 Support Team, OI&T, VA
Stearle	Carla	BCMA Pharmacy Consultant, OIT, IHS
Toedt	Michael	(A) Chief Medical Informatics Officer, IHS
Vinokur	Ella	Enterprise Systems Management, Health Provider Systems (Janet M. Reimer - Alternate)
Von Bibra	Linda	CIMTAC Representative, Business Owner, IHS

3.4 Subject Matter Experts: VA – BCMA

Last Name	First Name	Title
Shum	Daphen	Pharmacist, Perry Point VA Medical Center, Perry Point, MD

3.5 Subject Matter Experts, Area and Site Teams: IHS

3.5.1 Albuquerque Area Office

Last Name	First Name	Title
Darwin	Wil	RPMS-EHR CAC/Pharmacy Consultant

Last Name	First Name	Title
Lucero	Joseph	Information Management Officer
Candelaria	Jacque	Meaningful Use Coordinator
Sierra	Robert	RPMS Administrator
Townsend	Judy	Information Technology Specialist

3.5.2 Acoma-Canoncito-Laguna Service Unit San Fidel, NM

Last Name	First Name	Title
Darwin	Wil	Acting CEO
Lucero	Merlin	IMS Site Manager
Peacock	Jeremy	Inpatient Nurse
Sanders	Theresa	BCMA Coordinator
Palanki	Suryam	Pharmacist Informaticist

3.5.3 Alaska Native Tribal Health Consortium

Last Name	First Name	Title
Gosney	Kimiko	CAC
Hill	Audra	CAC
McIntyre	Carlene	Pharmacy Consultant

3.5.4 Blackfeet Community Hospital, Browning, MT

Last Name	First Name	Title
Kennedy	Jamie	Inpatient Pharmacy CAC and BCMA Lead
Farr	James	Night Nursing Supervisor BCMA Coordinator
Ramirez	Charlene	Day Nursing Supervisor BCMA Coordinator
St. Goddard	Shirley	IT Specialist, RPMS
Chosa	Erik	Area Pharmacy and CAC
Kuka	Verna	Area IT/RPMS Specialist
Thomas	Stacey	Pharmacy Supervisor
Sabo	Jody	Surgery Supervisor

3.5.5 Bristol Bay Area Health Corporation, Dillingham, Alaska

Last Name	First Name	Title
Thrutchley	Vincent	CAC
Olson	Kane	Pharmacy Informaticist
Mahoney	Patrick	Inpatient Nurse Manager
Darrough	Johanna	Information Technology Specialist

3.5.6 Cherokee Indian Hospital Authority, Cherokee, NC

Last Name	First Name	Title
Lambert	Wanda	BCMA Coordinator
Helm	Elizabeth	Director of Pharmacy
White	Abigail	CAC
Rogers	Grant	Information Technology Specialist

3.5.7 Cheyenne River Service Unit, Eagle Butte, SD

Last Name	First Name	Title
Lee	Joy	BCMA Co-Project Lead
Liu	Roger	BCMA Co-Project Lead
Hollow Horn	Eunice	Nursing BCMA Coordinator
Yu	Rebecca	Pharmacy Informatics
Ducheneaux	Guthrie	CAC

3.5.8 Chickasaw Nation Health System, Ada, OK

Last Name	First Name	Title
Freeze	Travis	BCMA Coordinator
Kennedy	Melissa	BCMA Coordinator
Anderson	Jesse	Information Technology
Simpson	Patrick	Information Technology

3.5.9 Chinle Comprehensive Health Care Facility, Chinle, AZ

Last Name	First Name	Title
Bird	Nick	BCMA Lead/CAC
Fields	Jeanetta	BCMA Coordinator
Chase	Renee	BCMA Coordinator
Ransom	David	Pharmacy Informaticist
Janke	Gabriella	Inpatient Pharmacy Supervisor

3.5.10 Choctaw Health Center, Philadelphia, MS

Last Name	First Name	Title
Willis	Leslie	BCMA Project Lead/CAC
McKee	Nick	Pharmacy Informaticist
Willis	Raymond	Information Technology Specialist
Blair	Kristen	BCMA Coordinator/Inpatient Nurse Manager

3.5.11 Choctaw Nation Health Systems Authority, Talihina, OK

Last Name	First Name	Title
Steers	Randy	Director of Inpatient Pharmacy Services
Olson	Matt	Pharmacy Administrative Data Processing Applications Coordinator
Green	Ross	Project Lead/CAC
Randolph	Audrine	Information Technology Specialist

3.5.12 Claremore Indian Hospital, Claremore, OK

Last Name	First Name	Title
O'Mary	Cindy	BCMA Coordinator/BCMA Project Lead
Tricinella	Jodi	BCMA Coordinator/ Pharmacist
Battese	Kelly	Facility Leader
Murphy	Billy	Biomedical Engineer
Rhodes	Jamie	Facility Leader
Ponder	David	Information Technology Support
Welch	Nancy	Respiratory Therapist

Last Name	First Name	Title
Sanders	Dr.	(Acting) Medical Director
O'Mary	Cindy	RN Nurse Manager
Lee	Mike	Pharmacy Manager
Wilton	Cory	CAC

3.5.13 Crownpoint Health Care Facility, Crownpoint, NM

Last Name	First Name	Title
Alvarez	Lydia	BCMA Project Lead/CAC
Kalathil	Abraham	Pharmacy Informaticist
Schneider	Cody	BCMA Coordinator/Nurse Management
LaChappelle	Cameron	Pharmacy Resident
Burbank	Jimmy	Information Technology Specialist

3.5.14 Fort Defiance Indian Hospital, Fort Defiance, AZ

Last Name	First Name	Title
Benally	Brenda	BCMA Coordinator
Boress	Jonathan	BCMA Coordinator
Naglich	Mike	BCMA Coordinator
Nez	Melinda	BCMA Coordinator

3.5.15 Gallup Indian Medical Center, Gallup, NM

Last Name	First Name	Title
Platero	Marcie	CAC
Ruddle	Andy	Nursing BCMA Coordinator
Fuller	Rachael	CAC
Culligan	Kerri	Pharmacy BCMA Coordinator
Dineyazhe	Dawn	CAC
Valgardson	Josh	Pharmacy Informaticist
Cope	Ray	Inpatient Pharmacy Supervisor

3.5.16 Great Plains Area Office

Last Name	First Name	Title
Rauth	Leslye	Area CAC, Sioux Falls
Hall	Martin	Information Technology Specialist, Aberdeen Area Office
Schuchardt	Jon	Area Pharmacy Consultant

3.5.17 Kayenta Hospital, Kayenta, AZ

Last Name	First Name	Title

3.5.18 Mescalero Service Unit, Mescalero, Mescalero, NM

Last Name	First Name	Title
Simmons	Dorlynn	Health Administrator
Murphy	Kathy	IMS Site Manager
Adams	Yolanda	Director of Nursing
Marina	Mendez	CAC
Jason	Harris	Pharmacy Informaticist

3.5.19 Mt. Edgecumbe Hospital – Sitka, AK

Part of SEARHC (Southeast Alaska Regional Health Consortium)

Last Name	First Name	Title
Apathy	Peter	Systems Transformation Project Manager
Skane	Eric	Clinical Informaticist for Pharmacy
Anderson	Bill	Information Technology Staff
Parrish	Wade	Information Technology Staff
Mercurief Barker	Jay	Information Technology Staff
Stiles	Rhonda	Information Technology Staff
Chambers	Maya	Information Technology Staff
Gosney	Kimiko	Area CAC, Alaska Native Tribal Health Consortium (Anchorage)
McIntyre	Carlene	PharmD, Area Pharmacy Consultant, Alaska Native Tribal Health Consortium (Florida)

Last Name	First Name	Title
Gale	Traci	Director of Pharmacy
Massey	Jeanne	BCMA Lead Nurse

3.5.20 Nashville Area Office

Last Name	First Name	Title
Bartlett	Robin	CAC, Pharmacy Consultant
Boykin	Max	Nurse Consultant
Eller	Jim	Information Technology Specialist
Wright	Mitch	Division of information Resources Management Director

3.5.21 Navajo Area Office

Last Name	First Name	Title
Ray	Kathy	CAC, Navajo Area Office
Yazzie	Jeannette	Nurse Consultant, Navajo Area Office
Kopenhaffer	Thad	Pharmacy Consultant (A), Navajo Area Office
Cody	Keri	Information Technology Specialist, Navajo Area Office

3.5.22 Northern Navajo Medical Center, Shiprock, NM

Last Name	First Name	Title
McAtasney	Grace	Clinical ICU Coach
Krestel	Clint	BCMA Coordinator
Van Tyle	Kendall	BCMA Coordinator
Fischer	Neil	CAC
Thompson	Regina	(ICU Manager), Implementation Lead

3.5.23 Oklahoma City Area Office

Last Name	First Name	Title
Cross	Charles	Information Technology Specialist
Burchett	Max	Pharmacy Informaticist
Loving	Becky	Nurse Consultant
Patten	Tracie	Pharmacy Consultant

Last Name	First Name	Title
Rubin	Amy	CAC
Thompson	Robin	CAC

3.5.24 Phoenix Area Office

Last Name	First Name	Title
Ahasteen	Ann	Information Technology Specialist
Reyes	Rebecca	Pharmacy Consultant
Cody	Keri	Information Technology Specialist
John	Karen	Director of Clinical Informatics (Acting) Lead EHR CAC
Mosely	Elvira	CAC
Brewer	Tammy	CAC
Towne	Jana	Area Nurse Consultant

3.5.25 Phoenix Indian Medical Center, Phoenix, AZ

Last Name	First Name	Title
John	Karen	(A) Director of Clinical Informatics
Diggins	Daniel	Inpatient Pharmacist
Myers	Shannon	Acting BCMA Coordinator
Von Bibra	Lynda	CAC
Walling	Jeff	Pharmacy Informaticist
Davis	Jordon	Inpatient Pharmacist
Milkam	Anthony	CAC
Larocque	Patricia	Inpatient Director of Nursing

3.5.26 Pine Ridge Hospital, Pine Ridge, SD

Last Name	First Name	Title
Austin	Latona	BCMA Pharmacy Coordinator/ BCMA Lead
Nelson	Angela	Inpatient Pharmacy Supervisor
Sahr	Rodney	CAC
Jacobs	Tom	BCMA IT Specialist

Last Name	First Name	Title
American Horse	Maxine	Inpatient Nursing Supervisor
Dixon	Linda	BCMA Nursing Coordinator
Schreiner	Tasheena	BCMA Nursing Coordinator
Stover	Ed	IT Specialist
Blacksmith	Teresa	OB Nursing Supervisor

3.5.27 Quentin N. Burdick Memorial Healthcare Facility, Belcourt, ND

Last Name	First Name	Title
Indvik	Kathy	BCMA Lead, CAC
Knutson	Ken	Pharmacy Informaticist
Dodd	Mary	Pharmacist
Lenoir	Nichole	Nurse Supervisor

3.5.28 Red Lake Hospital, Red Lake, MN

Last Name	First Name	Title
Spaeth	Pam	CAC
Gunderson	Cindy	Chief Pharmacist
Cook	Mary Ann	Director of Nursing
Thomas	Jeremy	Information Technology Specialist
Garrigan	Douglas	Information Technology Manager

3.5.29 Rosebud Comprehensive Health Care Facility, Rosebud, SD

Last Name	First Name	Title
Greenhagin	Carin	RN, Lead Nurse Informatics/ Acting Inpatient Supervisor
Frye	Matthew	Chief Pharmacy
Peterson	Abby	Inpatient Pharmacist
Labelle	Jeanette	Information Technology

3.5.30 Santa Fe Indian Hospital, Santa Fe, NM

Last Name	First Name	Title
Dye	Leslie	Health Administrator

Last Name	First Name	Title
Tenorio	Luke	IMS Site Manager
Bitsoie	Gary	Asst. IMS Site Manager
Palucci	Lisa	Director of Nursing
Kyle	Sheffer	Pharmacist Informaticist/CAC

3.5.31 Sells Indian Hospital, Sells, AZ

Last Name	First Name	Title
Lester	John	CAC
Wade	Karen	Chief Information Officer
Contos	Michael	Chief Pharmacist
Cerna	Pat	HIM Supervisor
Feldman	Lou	Pharmacy Informaticist
Whitman	Yolanda	Coding Supervisor

3.5.32 Whiteriver Service Unit, Whiteriver, AZ

Last Name	First Name	Title
Haigh	Randy	CAC
Campbell	Brian	BCMA Project Lead, Director of Professional Services
Wilson	Valerie	Pharmacy BCMA Coordinator
Vangie	Pablo	Nursing BCMA Coordinator, Nursing Supervisor
Clonts	Dan	Nursing BCMA Coordinator, Assistant Nurse Supervisor
Orzel	Paula	Nursing BCMA Coordinator, Assistant Nurse Supervisor
Cloud	Beverly	Nurse, Whiteriver Phoenix Area

3.5.33 Winnebago Service Unit, Winnebago, NE

Last Name	First Name	Title
Reed	Tracy	BCMA Lead
Porter	Susan	Pharmacist
Reiser	Karen	Director of Nursing
Poignee	Theresa	Information Technology Specialist

3.5.34 Zuni Service Unit, Zuni, NM

Last Name	First Name	Title
Grizzle	Rebecca	Quality Manager
Salvador	Roxanne	RPMS Site Manager
Martinez	Keith	Information Technology Specialist
Kanesta-Brislin	Terry	Director of Nursing
Romancito	Melanie	CAC
Harker	Erica	Chief Pharmacist

4.0 Referenced Documents

4.1 Background

This agenda has been developed over a period of time, during which a number of documents were developed to assist in the process of BCMA configuration. These documents were previously included as appendices to the Agendas for Configuration and Test.

These documents have been sufficiently developed that they have been split off from the agenda and are stand-alone files. These files are available from the IHS BCMA website at <http://www.ihs.gov/bcma/resources/>. They are now referenced in this agenda by their current names.

4.2 Historical Cross-Reference

Table 4-1 serves as a cross-reference between the previous and current names for the referenced documents.

Table 4-1: Historical Cross-reference

Former Appendix Name	Current Document Name and File Name
Appendix A: BCMA End-User Training (Brief)	End User Training BCMA_EndUserTraining.pdf
Appendix B: BCMA Coordinator and/or Pharmacy to Teach Site Specific Special Situations Standard Bar Codes	Special Barcodes BCMA_SpecialBarcodes.pdf
Appendix C: BCMA Pharmacy Training Detailed Agenda	Pharmacy Detailed Training BCMA_PharmacyDetailedTraining.pdf
Appendix D: BCMA GUI Unit Dose Tab	Unit Dose Tab Example BCMA_UnitDoseTabExample.pdf
Appendix E: Inpatient Medications Incorrectly Displaying	Med Display Trouble Shooting BCMA_MedDisplayTroublshooting.pdf
Appendix F: Sample - BCMA Competency	Competencies Checklist BCMA_CompetenciesChecklist.pdf
Appendix G: Sample - BCMA Nursing Competency	Nurse Competencies Checklist BCMA_NurseCompetenciesChecklist.pdf
Appendix H: Sample - BCMA Inpatient Pharmacy Checklist	Pharmacy Inpatient Checklist BCMA_PharmacyInpatientChecklist.pdf
Appendix I: BCMA Troubleshooting for Pharmacists	Pharmacist Trouble Shooting BCMA_PharmacistTroublshooting.pdf
Appendix J: BCMA Drug Issues	Drug Issue Trouble Shooting BCMA_DrugIssueTroublshooting.pdf

Former Appendix Name	Current <i>Document Name</i> and File Name
Appendix K: FileMan to Identify Meds Unable to Scan	Unable To Scan FileMan Script BCMA_UnableToScanFileManScript.pdf
Appendix L: BCMA Basic Troubleshooting for Scanning Failures	Scanning Trouble Shooting BCMA_ScanningTroublshooting.pdf
Appendix M: Timely Administration of Scheduled Drugs	Timely Admin Policy Sample BCMA_TimelyAdminPolicySample.pdf
Appendix N: IHS and VA Collaborative Standard Operating Procedure	IHS-VA SOP BCMA_IHS-VA_SOP.pdf

5.0 Detailed Agenda

All Times are Alaska Time Sunday

Time	Topic
8:00 a.m.	BCMA Pharmacy Training (Session 1) See Appendix B:
12:00 p.m.	Lunch
1:00 p.m.	BCMA Pharmacy Training (Session 2) See Appendix B:
5:00 p.m.	Adjourn

Monday

Time	Topic
8:00 a.m.	BCMA Super End-User Training (Session 3) Oriented towards BCMA Coordinators, Nurse Managers, HIM, and Coding See Appendix A:
12:00 p.m.	Lunch
1:00 p.m.	BCMA HIM, Coding, and Coordinator Training (Session 4) At the end of this session participants should be able to: <ul style="list-style-type: none"> • Review the Billing Process for Inpatient Medications. • Identify the roles and responsibilities of the BCMA Coordinator. • Delineate Pharmacy, Nursing, and Information Technology roles and responsibilities. • Manage the BCMA Medication Administration Process. • Examine BCMA Parameters. • Use BCMA Mail Groups. • Generate BCMA GUI and BCMA Roll and Scroll Reports. • Generate Managing Scanning Failures (MSF) Reports for managing scanning failures. • Examine policies and procedures for use of “Med Order Button” and monitor through use of “Med Order Button” Reports. • Apply use of “Edit Med Log” – medications anyone has entered. • Examine the BCMA Troubleshooting Matrix. • Compare and contrast the roles and responsibilities of the Eligible Hospital, Area, IHS OIT, and VA BCRO. • Compare and contrast Tier 1, Tier 2, and Tier 3 BCMA support.
5:00 p.m.	Supper
6:00 p.m.	BCMA Super End-User (Session 5) See Appendix B:
10:00 p.m.	Adjourn

Tuesday

Time	Topic
8:00 a.m.	BCMA Super User Training (Session 6) See Appendix A:
12:00 p.m.	Lunch
1:00 p.m.	BCMA Super User Training (Session 7) See Appendix A:
2:00 p.m. Concurrent Session	BCMA Go-Live and Troubleshooting for Afternoon and PM Medication Pass
5:00 p.m.	Supper
6:00 p.m.	BCMA Super User Training (Session 8) See Appendix A:
10:00 p.m.	Adjourn

Wednesday

Time	Topic
8:00 a.m.	BCMA Coordinator Only (Session 9) See Session 4:
12:00 p.m.	Lunch
1:00 p.m.	BCMA Super User Training (Session 10) Makeup Class See Appendix A:
5:00 p.m.	Supper
11:00 p.m.	Adjourn Whenever Troubleshooting and Problem Solving is Complete

Thursday

Time	Topic
7:00 a.m.	BCMA Go Live and Troubleshooting (continued)
1:00 p.m.	BCMA Closeout with Leadership
11:00 p.m.	Adjourn

Friday

Time	Topic
7:00 a.m.	BCMA Go Live and Troubleshooting (continued)
12:00 p.m.	Lunch
10:00 p.m.	Adjourn Whenever Troubleshooting and Problem Solving is Complete.

6.0 Biographical Sketches

CAPT Deborah Burkybile Alcorn, MSN, RN, CPC
BCMA Nurse Consultant, BCMA Training and Deployment
IHS OIT

Deborah has been Registered Nurse for 32 years. During this time her nursing practice led her to work in a variety of private sector hospitals, clinics, tribal facilities, and for the last 20 years in IHS. Captain Alcorn is a citizen of the Cherokee Nation of Oklahoma. She received her commission in the U.S. Public Health Service in 1988 and works from the Nashville Area Office, IHS where she had served Tribes and IHS facilities in the role of Area Managed Care Consultant. Currently she is assigned to support the implementation of the IHS EHR by assisting the IHS OIT as one of the EHR implementation team consultants.

Deborah Alcorn is also a Certified Professional Coder and has worked diligently with the Nashville Area Tribes to train and certify coding professionals at the Service Unit, Tribal, and Urban levels. Health Care Compliance is another field of particular interest and work for Captain Alcorn. Deborah's knowledge and expertise in nursing has enabled her to provide assistance to IHS, Tribal, and Urban facilities from both clinical and business perspectives with a focus on quality health care service delivery.

CAPT Michael Allen, MIS, RPh
EHR Pharmacy Consultant, IHS OIT
USET Regional Extension Center

Captain Allen is a commissioned Officer in the USPHS. He came from a family of pharmacists and holds a BS degree from Idaho State University. He has a Master of Information Systems degree from University of Phoenix. He started with USPHS after working in retail pharmacy for a few years. During his years in IHS he has served in Portland Area, Phoenix Area, and currently is in Tucson Area. His duties have included, besides being a pharmacist: Site Manager, Assistant Site Manager, CAC, Pharmacy Package Administrator, and POS specialist. He serves on the Pharmacy PSG and was recently appointed to the POS Technical Advisory Group. His children are out of the house and he has one granddaughter he misses greatly. He lives in Tucson with his wife and cat.

Jonathan Bagby, MSN, MBA, RN-BC**Nurse Consultant****VHA OIA, BCRO VA**

Jonathan Bagby, MSN, MBA, RN-BC is a board-certified informatics nurse with over 10 years' experience with the VA, spending much of that time representing the interest of field nurses as a subject matter expert in developing the electronic medical record. Jonathan is a Nurse Consultant for the VA BCRO, providing nursing informatics support and education to staff at the national level supporting over 150 VA medical centers. Prior to joining the BCRO, Jonathan worked for five years as the Nursing Informatics and BCMA Coordinator at McGuire VA Medical Center in Richmond, Virginia and led the nursing side of numerous projects (including revising the electronic medical record orientation program for new nurses, developing an electronic report for patient handoff, developing an electronic staff scheduling assistance program, and the implementation of automated medication distribution cabinets).

Jonathan has presented topics at several national informatics conferences including Health Information Management Systems Society (HIMSS), VeHU, and the unSUMMIT and is a published author of several peer reviewed articles. Jonathan has an Associate of Science degree from Richard Bland College of the College of William and Mary, a Bachelor of Science in Nursing from Virginia Commonwealth University, and a Master of Science in Nursing and Business Administration in Health Care Management from the University of Phoenix. He holds a Master's Certificate in Project Management from the George Washington University School of Business and is board-certified in Informatics through ANCC. His clinical background is in medical, surgical, and orthopedic nursing and has worked as a staff nurse, nurse manager, nursing informatics/BCMA coordinator, and nurse consultant.

CDR Bradley Bishop, PharmD, MPH**Pharmacy Consultant****IHS OIT**

Commander Bradley Bishop is a Commissioned Officer in the United States Public Health Service and has been in the IHS since 2001. Commander Bishop received his Doctor of Pharmacy from the University of Tennessee College of Pharmacy and Master of Public Health from the University of Massachusetts-Amherst. He has been assigned to Sells, AZ; Tahlequah, OK; Tucson Area Office; and IHS Headquarters as a pharmacist, chief pharmacist, CAC, and pharmacy consultant.

Jaclyn Bloch
Information Technology Specialist
Clinical 1 Support Team/Clinical Product Support
Product Development, VA

Jaci is currently working as an Information Technology Support Specialist with the VA. She started her career in 1984 as a Licensed Practical Nurse at the St. Cloud VA Health Care System working on the Nursing Home Care Unit. Jaci transferred to pharmacy, where she worked for 15 years as a registered pharmacy technician in all areas of the pharmacy including inpatient, outpatient, controlled substance management, inventory management, and procurement. She has worked as Vista Applications Coordinator in the Pharmacy and Business Office service line acting as the liaison between the service and Information Resource Management (IRM).

In 2008, she joined the VISN 23 IT Department as a Vista Applications Support Specialist for the Vista pharmacy packages providing Vista and COTS pharmacy support for all sites in VISN 23. Since 2011, Jaci has been working as an Information Technology Specialist for the Clin 1 Support Team, CPS, PD, Department of VA. Jaci's duties include reviewing and releasing software and supporting the Vista pharmacy packages including Inpatient, Outpatient, Controlled Substances, Drug Accountability, BCMA and CMOP. Jaci is currently working on several projects and workgroups including Electronic Prescribing of Controlled Substances, IMR V, IMR VI and BCMA for IHS.

Barbara Connolly
Information Technology Specialist
Clinical 1 Support Team/Clinical Product Support
Product Development, VA

Barbara Connolly has been a member of the Clinical 1 Product Support team since 1998. In this capacity she has supported BCMA, Inpatient Medications and Outpatient Pharmacy and CMOP. She has been actively supporting BCMA since its inception in 1999. Prior to her position with Product Support she was the Data Manager for Primary care at the Albany VAMC. She was responsible for the management of the Primary Care teams and provided upper management with a variety of reports centered around provider work load. She mentored graduate school interns who were earning a degree in Public Health. Barbara also worked for 10 years as an IT Specialist for the Albany VAMC supporting a large variety of applications and developing local software.

Sean Cook (Contractor)
Applications Systems Analyst
DNC

Sean Cook is an Applications Systems Analyst with DNC and has worked on contract with the IHS since 2010. His professional experience in Pharmacy spans more than a decade and includes in-depth experience in interoperability, automation, and team leadership. Sean spent several years with Omnicare, the largest long term care pharmacy in Northern Illinois and a year with Provident Hospital of Cook County, Chicago. Prior to coming to Albuquerque, he provided systems and programming support for six pharmacies at Columbia St. Mary's in Milwaukee.

Stephen Corma, BS Pharm, RPh
Pharmacist Consultant
VHA OIA, BCRO, VA

Stephen Corma is a registered Pharmacist serving as the Pharmacy Consultant for the VA Barcode Resource Office. He joined the VA in 1990 after spending seven years as a staff pharmacist in various private sector hospitals. He began his VA career at the Wilkes-Barre VA Medical Center in Wilkes-Barre, PA and has performed in a variety of roles which included staff Pharmacist (both inpatient and outpatient), Inpatient Pharmacy Supervisor, Assistant Chief of Pharmacy, Acting Chief of Pharmacy, and Automated Data Processing Coordinator.

Stephen became interested in informatics with the initial roll out of BCMA and worked closely with the BCMA site coordinator, Pharmacy, and Nursing staff to successfully implement through site set up, training, and ongoing support. He was selected as a site team member for the National BCMA Collaborative Breakthrough Series to optimize BCMA use. He has also participated on various national VHA Pharmacy Benefits Management work groups (medication reconciliation as site POC, and Systems and Parameters workgroup). He also worked with Physicians, CACs, and Clinical Pharmacists to create computerized order sets for various clinical pathways such as severe sepsis, diabetes management, hypertension, and anticoagulation. In his supervisory capacity, Stephen was responsible for oversight of Pharmacy Service programs which included expansion of Clinical Pharmacy services, budget control, planning, inventory management, staffing, performance, and quality assurance activities.

Stephen is a graduate of St. John's University, College of Pharmacy and Allied Health where he earned his Bachelor of Science degree in Pharmacy. He is also the newest addition to the Barcode Resource Office, joining them as Pharmacist Consultant in October 2013.

Kevin Cownie**Information Technology Specialist****Clinical 3 Support Team/Clinical Project Support****Product Development, VA**

Kevin Cownie is currently an Information Technology Support Specialist with the VA. Prior to working for the VA he was an Application Programmer for a manufacturing company and a member of the Air National Guard. He has 25 years of service with the VA which included seven years as Chief, IRM service. He joined national support as a member of the National Database Integration Team. This team was responsible for integrating numerous VA Hospital databases. Currently a member of the Clin 3 Support Team, he is responsible for supporting and releasing software for BCMA Contingency, Clinical Procedures, Functional Independence Measurement, Home Based Primary Care, Medicine, My HealthVet, National Database Integration, QUASAR, Radiology, Spinal Cord, Suicide Hotline and VistA Imaging. He was heavily involved in the development of the BCMA Contingency package and more recently the startup of the Valley Coastal Bend Hospital along with the realignment of clinics in VISN 1.

Kirk Fox**Information Technology Specialist****Clinical 1 Support Team/Clinical Product Support****Product Development, VA**

Kirk Fox has 22 years of service with the VA; he is currently a member of Clinical 1 Support Team since 2008 as an Information Technology Support Specialist. In this position, Kirk has been charged with releasing and supporting software, including but not limited to BCMA, Inpatient Medications (both Unit Dose and IV Medications), and Outpatient Pharmacy packages.

Kirk has been involved with BCMA since version 1, at a site level and as active role in the BCMA Multi-Disciplinary for VISN 2 (five Integrated VA Medical Centers in New York). Additional VISN 2 roles include Application Support and Team Lead Application Support for BCMA for VISN 2. This position provided the opportunity to work on many projects assisting in the Development of National BCMA Contingency Plan, and the creation of BCMA Reports.

Prior roles in the VA include: Nurse Service 6 years, Medical Administration Service 2 years, and Information Technology Specialist for the last 14 years.

A firm believer in Gene Kranz's statement, "I don't care about what anything was DESIGNED to do, I care about what it CAN do."

Cathi Graves
Management Analyst, BCRO
VHA, OIA Health Informatics

With over 27 years of VA experience, Cathi Graves is the senior Management Analyst for the BCRO. Cathi is an accomplished professional with in depth knowledge of project management, contract management, information systems training, information systems support, and hospital executive support. Ms. Graves is consistently recognized by peers for her ability to manage the strategic implementation of information technology systems within the VA. As part of the BCRO management team, Ms. Graves provides Project Management and Contract Management oversight, as well as business operations management support, overseeing the contractual aspects of the Bar Code Expansion-Positive Patient Identification (BCE-PPI) Project. Her project management and training development expertise serve as an integral part of the BCRO work efforts to assist, implement and operationalize the use of VA's BCMA and BCE-PPI applications.

Ms. Cathi Graves earned her Project Management Certificate from Baldwin Wallace College and a Master's certificate in Project Management from The George Washington University in March 2004. Ms. Graves began her VA career in 1985 at the Dallas VA Medical Center transitioning from Executive Assistant to the Associate Director to Computer Assistant within the IRM Office. In 1991, Ms. Graves transitioned to the Dallas IRM Field Office, National IRM Training Directorate, and was responsible for various Practicum Programs, planning, and delivery of VA National IRM Chiefs Conferences. She also provided oversight for the National IRM Training Program and provided contract oversight for national VMS System Management Training for IS professionals. Ms. Graves also provided National VistA Support for the Fiscal Management Team to support IFCAP, Pharmacy, and Fee Basis VistA applications.

In 1996, Ms. Graves joined the Employee Education System (EES), as the National Education Project Manager for BCMA, Voluntary Service System, Patient Advocate Tracking System, Blind Rehabilitation V5.0, Veterans Personal Finance System, VistA Blood Establishment Computer Software, and the Medical Information Security Service. Ms. Graves also served as a National Education Project Manager for CPRS. In her Education Project Manager roles Ms. Graves was responsible for the management of all aspects of national training program development and execution. National training development and execution activities included the delivery of training plans, objectives, and curricula, as well as overall management of SMEs/trainers and education assistant staff. In 1999, Ms. Graves was responsible for the planning and delivery of five national face-to-face training sessions for over 1,500 VA train-the-trainer staff, to support the deployment of BCMA. In her role with NT&EO, Ms. Graves frequently represented the Director on OI national workgroups including representatives from VACO Senior Executive offices in the establishment of goals/objectives, processes, and tools as the VA moved from VistA to a HealtheVet architecture.

Dale K. Johnson, BSN, RN
IT Specialist, Clinical Product Support Team 2
Office of Information and Technology, VA

Dale Johnson is currently an Information Technology Specialist with National Clinical Product Support, VA. Prior to national support, Dale labored as a CAC at VA Salt Lake City Health Care System for 10 years. Dale was the Lead CAC and handled a variety of issues at the VA Hospital. He has previously been involved in training IHS facilities in regards to shared applications with the VA VistA health record; consults, notes, clinical reminders and his group was recognized for this support.

Dale has worked as a Registered Nurse at the Salt Lake VA Telemetry unit, Acute Medicine and Recovery. This experience gives him a working knowledge as an end user of an Electronic Medical Record. Dale Started at the VA in 1991 after 4 years in the United States Marines. He is a strong advocate for Veteran issues. In his spare time he likes reading and writing about himself in the third person or can be found camping with his family whenever time and weather permits.

Kim M. Lyttle, BS, MT(ASCP)
Information Technology Specialist
Clinical 1 Support Team/Clinical Product Support
Product Development, VA

Kim Lyttle is a registered Medical Technologist and is currently an Information Technology Support Specialist with the VA. She has several years of experience as a Medical Technologist in the private sector. She has over 26 years of service within the VA, including six years as a Medical Technologist, and seven years as an Information Technology Specialist at Martinsburg VAMC.

Since 2000 Kim has been assigned as an Information Technology Specialist for the Clin 1 Support Team, CPS, PD, Department of VA. Kim has been charged with releasing and supporting software, including but not limited to BCMA, Inpatient Medications (both Unit Dose and IV Medications), Pharmacy Data Management, Dental, Surgery, Drug Accountability, and Controlled Substances. Kim released BCMA Version 2.0, and was one of the primary release people for IMR IV. She has received multiple awards and accolades for her work, especially with BCMA. She is currently working on several projects and workgroups including SQWM, IMR V, IMR VI, Patient Safety for BCMA and Inpatient Medications, the BCMA workgroup, the Inpatient Medications Workgroup, BCE, and BCMA for IHS.

Phil Odle, MSN, RN-BC**Informatics Nurse Specialist/BCMA-Coordinator****Marion Illinois Veterans Administration Medical Center**

Phil Odle obtained his Bachelor of Science in Nursing from Oklahoma Baptist University. While living in Shawnee, OK, he worked for almost ten years at Children's Hospital of Oklahoma in the Pediatric ICU and Post-Anesthesia Care Unit until 1991. During his time at Children's, he was a co-investigator on research in Parental Stressors in Neonatal and Pediatric ICU's and co-author of the published article based on that research.

He has been employed as a Registered Nurse in the VA since 1991. He began his VA career as a staff nurse in the Intensive Care Unit. He has held many positions within the facility, including ICU Nurse Manager, Clinic Float Nurse, Nursing Supervisor, and now he is the facility BCMA-C and Informatics Nurse Specialist. He was introduced to BCMA when it was first released to the VA in 1999. Beginning with his assignment as a Train-the-Trainer for version 2, he took on additional responsibilities with BCMA. He led a BCMA Collaborative Team related to Finishing After-hours Medication Entries to assist VA facilities which did not have 24/7 Pharmacy coverage. In 2012, he was one of several coordinators to serve as Mentors for a pilot program of virtual Mentoring for new BCMA coordinators, a project that was sponsored by the VA BCRO. He obtained a Master of Science in Nursing (Nursing Informatics) degree from Walden University. He is board certified in Nursing Informatics. In addition to duties at his local facility, Mr. Odle serves on several regional and national committees and task forces, such as field-based Subject Matter Expert for the VA BCRO Oversight Board, Applied Informatics Service Issue Brief Review Team, Clinical Procedures Flowsheet Terminology team, Clinical Information Systems/Anesthesia Record Keeping team, BCMA Web-Based Training team, and Nursing Informatics Field Alliance.

Chris Saddler, RN**Information Technology Specialist****IHS OIT**

Chris Saddler began working for IHS in 1980 as a Nurse Epidemiologist at the Alaska Native Medical Center. In 1984, she joined the fledgling IHS RPMS Development Team. She was responsible for the initial development of the VA's Laboratory package and instrument interfaces for IHS. Transferring to OIT National Programs in 2003, her initial assignment was upgrading the Radiology package for EHR. Other projects included the upgrade to Kernel v 8 and other infrastructure packages, PCC+, Vista Imaging, Women's Health, and serving as IHS Database Administrator for two years. She provided technical support for EHR deployment in Alaska, and continues to support multi-division and urban sites.

Daphen Shum, BS Pharm, RPh**Pharmacy Supervisor/Informaticist (at Perry Point Division)****BCMA Coordinator, VA Maryland Health Care System (VAMHCS)****Pharmacy Clinical Specialist, VHA PBM Clinical Informatics/Pharmacy Reengineering**

Daphen Shum is a registered pharmacist working in a variety of roles within the VA. She has over 31 years of service in the VA, with a few years working as a hospital pharmacist in the private sector. Her VA career started as a Pharmacy Technician. After becoming a pharmacist, when was involved in the initial implementation of DHCP / VISTA. She was involved as an Informaticist soon after she started working at VAMC Perry Point in 1988, in addition to working in both the inpatient and outpatient pharmacy areas. She was involved in the implementation of BCMA in 2000 and was appointed BCMA Coordinator in 2005. She was involved on the team from VAMHCS, selected as a part of the national BCMA Collaborative Breakthrough Series, to facilitate the resolution of issues to optimize the use of BCMA. Other BCMA projects include a VISN 5 Pharmacist BCMA training initiative, BCMA Cross-Functional Team and BCMA Web-based Training Planning team. Current projects include iEHR Pharmacy SME, iEHR Bar Coding SME and BCMA for IHS.

LCDR Carla Stearle, PharmD, BCPS, NCPS**ePrescribing EHR Pharmacy Consultant, IHS OIT****USET Regional Extension Center**

Lieutenant Commander Carla Stearle is a Commissioned Officer in the United States Public Health Service and has been in the IHS since 2004. She received her Bachelor of Science Degree in Biology from Penn State University in 2000 and her Doctor of Pharmacy degree from the University of Maryland College of Pharmacy in 2004. Carla completed a pharmacy practice residency at W.W. Hastings Cherokee Nation Indian Hospital in 2004 and remained at Hastings as a staff pharmacist until 2009. During her years at Hastings she was a member of both the local EHR implementation team and the local Medication Safety Team. She is now employed as an ARRA Pharmacy Consultant with the OIT.

CAPT (ret) David R. Taylor, MHS, RPh, PA-C, RN
BCMA Federal Lead, BCMA Training and Deployment
IHS OIT

Captain (ret) Taylor is a retired Commissioned Officer in the United States Public Health Service and is a certified physician assistant, registered pharmacist, and registered nurse. He holds more than 36 years of public health, clinical, and clinico-administrative experience in the IHS as both a Commissioned Officer and Federal Employee. Mr. Taylor has served as a pharmacist, physician assistant, quality manager, risk manager, and compliance officer for the Pine Ridge, South Dakota and Cherokee, North Carolina Indian Hospitals. He has also served as an HIV/AIDS/STD consultant, performance improvement consultant, pharmacy consultant, diabetes clinical consultant, and RPMS health informatics consultant for the Nashville Area IHS. Since 2002 David Taylor has been assigned to the IHS OIT as a National Medical Informatics Consultant and has been charged with both training and deployment of the Meaningful Use of an EHR throughout the entire Indian Health Care system. David was awarded the PHS Meritorious Service Medal in recognition for his accomplishments in the EHR arena during his Commission.

Chris Tucker, RPh
Director, BCRO
VHA, OIA, Health Informatics

Chris L. Tucker, RPh, is the Director of the BCRO within the VHA OIA. His office provides strategic direction and oversight for BCMA and other bar code technology applications such as Clinical Laboratory, Anatomic Pathology, and Transfusion Verification. He received his pharmacy degree from Kansas University in 1979 and a Masters Certificate in Project Management from George Washington University's School of Business and Public Management in 2003.

Mr. Tucker has been an Industry Adviser in the Prescription for Change Series, First Do No Harm for the Clinical Initiatives Center of the Advisory Board Company, Washington, DC. He was a member of the Executive Council for the Patient Safety Reporting System administered by the National Aeronautics and Space Administration Ames Research Center from 2003 through 2009. Mr. Tucker co-chaired the Product Identification (GTIN) Workgroup for GS-1 US Healthcare from 2008 through 2012 working together with healthcare leaders to adopt and use standards that will help organizations share data, promote accuracy, and work more efficiently to improve patient safety and lower healthcare costs through healthcare track and trace technology standardization.

He has been involved in software development and performance management for medication administration bar coding since 1994, assisting in the development of the BCMA prototype software at the Topeka VA Medical Center. BCMA has received two National Performance Review Awards from then Vic-President Al Gore. Mr. Tucker was a USA Today - RIT Quality Cup Finalist in 2000, and received the HIMSS Article of the Year Award in 2002. His Office has received a Way Paver Award from the UnSummit in 2006 and a Cheers Award from the Institute of Safe Medication Practices in 2009. Mr. Tucker's has authored the following publications concerning the use of point of care medication administration technology:

- "Using BCMA Software to improve Patient Safety in Veterans Administration Medical Centers." *Journal of Healthcare Information Management*, vol 16, No.1,pg 46-51
- "VA pursues Bar Code Quality." *American Journal of Health-System Pharmacists*, July 2004
- "Using Point of Care to Reduce Medication Errors." *Understanding Health Communications Technologies*, edited by Michigan State University's Institute of Health Care Studies in collaboration with Kansas University Medical School's Health and Technology Outreach. Josey-Bass Publishers, September 2004
- "The VA's Multidisciplinary Approach to Bar Coded Medication Administration Implementation." *Pharmacy Purchasing and Products*, May 2009, vol 6, no.5
- "Quality-monitoring Program for Bar-Code-Assisted Medication Administration." *American Journal of Health System Pharmacy*, June 2009, Vol. 66

Catherine Whaley, PMP (Contractor)

EHR and BCMA Project Manager

Catherine Whaley is a Data Networks Corporation Project Manager based in Tucson, AZ. She holds an AAS in Accounting and an AA in General Studies from Anoka-Ramsey Community College with a PMP Certification from PMI. Her experience includes over 20 years of Information Technology including customer support, software development, design and development of classroom training documentation, training/instruction/facilitation, testing, business analysis, and project management. She has participated in the requirements gathering efforts and developed requirements for multiple applications. Since she started with IHS in 2010, she has worked as Project Lead for the 2012 Meaningful Use Certification project, Project Manager of the Stage 1 Meaningful Use Team and most recently Project Manager for the EHR Deployment and Training, eRx Deployment and BCMA projects.

Jan-Erik R. Zeller, RN-BSN, MBA-TM
Education Project Manager
EES, VHA

Jan-Erik Zeller is currently a Project Manager with the EES Clinical IT Applications Division charged with developing and implementing education and training plans involving various VHA clinical applications projects. He specializes in clinical applications such as the BCMA, BCE, Simulation and CPRS packages. His professional career consists of eight years of IT experience followed by eight years of working as a registered nurse in the Neuro-Trauma and Surgical ICUs and three years working as a CAC. He has served as a Subject Matter Expert for numerous clinical applications and Root Cause Analyses. Over the years he has assisted with and presented at various health care related conferences.

Appendix A: BCMA Super User Training

At the end of this session participants should be able to:

- Define BCMA roles, user configuration, and terms that often cause confusion.
- Demonstrate correct Nurse Order verification in EHR.
- Access the BCMA Application:
 - Access the BCMA Application from the computer desktop.
 - Open the patient's medical record.
 - Access the Reports menu to print out the Medication Due List.
 - Scan the patient's wristband correctly.
 - Confirm the correct patient.
 - Resize columns.
 - Identify the relative components of the VDL.
 - Access BCMA Clinical Reminders.
 - Identify the relative components of the Cover Sheet functionality.
- Administer Medications:
 - Access medication details.
 - Assess scanner status.
 - Submit a missing dose.
 - Scan medications.
 - Add a comment.
 - Chart medications as Not Given, Refused, or Held.
 - Scan a PRN medication.
 - Refresh the Due List.
 - Enter multiple orders and multiple orders of the same medication.
 - Enter early/late medications.
 - Enter multi-dose containers.
 - Enter injection site.
 - Scan an On-Call medication.
 - Enter PRN effectiveness.
 - Enter removal of patches.
 - Assess Scanning of wrong medication.
 - Print Missed Medication Report.
- Administer IV and IV Piggyback Medications:
 - Administer IV medications.

- Administer IV Piggyback medications.
- Access the BCMA Read-Only function.
- Access the IV Piggyback Tab.
- Use the Edit Med Log function.
- Manage Scanning Failures:
 - Access BCMA Managing Scanning Failures
 - Unit Dose
 - IVPB
 - IV Fluids
 - Limited Access
- Use Other Features:
 - Med order button
 - All reports function

Appendix B: BCMA Pharmacy Training

B.1 Order Entry Process

At the end of this session participants should be able to:

- Set up BCMA Roles and User Configuration
- Break down the RPMS EHR Order Entry Process:
 - Order entry via Medication Dialog
 - Order entry via Quick Orders
 - Unit Dose Orders
 - IV Orders to include IV Push, IV Piggyback, and IV Infusion

B.2 Finishing Orders

At the end of this session participants should be able to Finish orders:

- Administration Time
- Start/Date Time
- Now Orders
- Complex Orders
- Sliding Scale
- Fill on Request
- IV Label Reprint vs. New Label
- PCA Infusion
- Auto-cancellation
- Order Verification
- Pharmacist Auto-verification
- Contingency Plan
- Changing Dispense Drug on Verified Order
- Provider Comments and/or Special Instructions
- IV Push
- IV Piggyback
- IV Admixture
- Hyperalimentation (TPN)

B.3 BCMA GUI

At the end of this session participants should be able to use the BCMA GUI:

- Full vs. Read Only Access
- Virtual Due List
- BCMA GUI Tabs (Unit Dose, IVP/IVPB, IV)
- Cover Sheet
- Fractional Dose or Multiple Dose
- Missing Dose Request
- Medication not Displaying in BCMA
- Unable to Scan Medication
- Unable to Scan Patient Wristband
- Wrong Dispensed Dose
- User Bypassing Scanning
- Using BCMA in Isolation Rooms
- Run MSF Report
- CPRS Med Order Button

B.4 Special Considerations

At the end of this session participants should be able to examine Special Considerations:

- First Dose (TJC)
- Variable Doses (Policy Consideration)
- Variable Schedule (Policy Consideration)
- Flagged Orders

B.5 Troubleshooting

At the end of this session participants should be able to compare and contrast troubleshooting issues:

- Scanners
- Bar Code Scan but Error Message “Drug not Found”
- Drug File Inquiry (PSB DRUG INQUIRY)
- Synonym Ender/Edit (PSS SYNONYM EDIT)

- PSD Patients on Specific Drugs (PSJ PDV)
- Bar Code Quality
- IV Bag Labels
- Order NOT Appearing on BCMA VDL

B.6 BCMA Reports

At the end of this session participants should be able to generate BCMA Reports:

- BCMA Unable to Scan (Detailed) on BCMA GUI
- Missing Dose Follow-up (PSB MISSING DOSE FOLLOWUP)
- Pick List Menu (PSJU PLMGR)

Acronym List

Acronym	Meaning
ADE	Adverse Drug Event
AHRQ	Agency for Healthcare Research and Quality
ASHP	American Society of Health-System Pharmacists
BCE	Bar Code Expansion
BCE-PPI	Bar Code Expansion-Positive Patient Identification
BCMA	Bar Code Medication Administration
BCRO	Bar Code Resource Office
CAC	Clinical Applications Coordinator
CAH	Critical Access Hospital
CMS	Centers for Medicare and Medicaid Services
CPOE	Computerized Provider Order Entry
DNC	Data Networks Corporation
EES	Employee Education System
EHR	Electronic Health Record
eMAR	electronic Medication Administration Record
EP	Eligible Professional
FDA	Food and Drug Administration
HIMSS	Health Information Management Systems Society
IHS	Indian Health Service
IOM	Institute of Medicine
IRM	Information Resource Management
MSF	Managing Scanning Failures
OIA	Office of Informatics and Analytics
OIT	Office of Information Technology
PRF	Patient Record Flag
RPMS	Resource and Patient Management System
VA	U.S. Department of Veterans Affairs
VAMHCS	VA Maryland Health Care System

Acronym	Meaning
VDL	Virtual Due List
VHA	Veterans Health Administration