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Maintaining Nurses' Currency in Informatics

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MAINTAINING REGISTERED NURSES’ CURRENCY IN INFORMATICS

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of the requirements for the

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ABSTRACT

Technology has changed how registered nurses (RNs) provide care at the bedside. As more technologies are utilized to improve quality of care, safety of care, maximize efficiencies, and decrease costs of care, one must question how well the information technologies (IT) are fully integrated and utilized by the front-line bedside nurse in his or her practice. Despite the pervasiveness of IT in healthcare, there is a paucity of literature on how Chief Nursing Officers (CNOs) assure the ongoing education and training for nurses to maintain IT competencies in the practice environment.

From this author’s lived experience as a CNO, it is imperative to gain a better understanding of how to maintain nurses full use of IT capabilities in the electronic health record (EHR) to provide safe, quality care. This Doctor of Nursing project developed an ongoing EHR training program, for staff nurses, that was hard-wired into the organization’s educational plan. Additionally, this project was designed to increase nurses’ confidence to more effectively and efficiently navigate through the EHR and locate desired information in a timely manner for providing optimal clinical care.

This DNP project identified, organized, and streamlined current resources into a sustained, multifaceted ongoing training program. Materials, guides, and lesson plans were presented in a module format with multiple educational classes offered. The “Post-Training Only Evaluation Survey Template” instrument, developed by the Northwest Center for Public Health Practice from the University of Washington, was used to assess nurses’ ability to navigate pertinent clinical information post training. The survey tool provided feedback to the project sponsor to help identify areas where the course content did not improve the trainees’ efficiency and effectiveness in using the EHR. This project provided information that will be helpful in
developing future trainings and will be adopted by the facility for use by other disciplines and units.

Literature provided little guidance on how to maintain nurses’ competencies in IT in the practice environment. This project served as a foundation for altering future trainings in IT, including the EHR, to better meet the needs of registered nurses. Chief Nursing Officers can foster ongoing IT learning through providing supportive processes that empower nurses to acquire the knowledge and skills to be effective in their roles.
ACKNOWLEDGEMENTS

Pursuing my DNP degree has been a labor of love. I appreciate the support from my husband Darren, daughters Kirsten and Brooke, and my family, friends, and colleagues. I do not believe I would have seen the end of this journey had it not been for their support and encouragement.

I want to extend my gratitude and thanks to my mentor and colleague, Dr. Tracy Weistreich. She prevented me from going down many ‘rabbit holes’ and helped me stay focused and stay the course.

I also want to acknowledge the influence, mentorship, and example that Ms. Kathleen Chapman has provided me. She demonstrated the impact and difference a nurse leader can make within the healthcare system and the Nursing Profession.

Finally, I want to thank my father for fostering my love of medicine. Had it not been for trips to the lab, rounding with him at the hospital, and talks about healthcare, I would not have discovered my love and passion for nursing.
DEDICATION

This DNP degree is dedicated to my loving husband Darren. With him by my side, all things are possible. Thank you my dear.
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CHAPTER I

Technology changed how registered nurses (RNs) provided care at the bedside (HIMSS, 2011; Huston, 2013; McGonigle, Hunter, Spies, & Hebda, 2014; Simpson, 2013). As more technologies were utilized to improve quality of care, safety of care, maximize efficiencies, and decrease costs of care, one must question how well the information technologies were fully integrated and utilized by the front-line bedside nurse in his or her practice (Kleib, Sales, Lima, Andrea-Baylon, & Beaith, 2010; McGonigle et al. 2014). In 2010, the Institute of Medicine (IOM) published the report, *The Future of Nursing Leading Change, Advancing Health*, (hereafter referenced as 2010 IOM The Future of Nursing report) and called upon nursing to enhance nurses’ information technology competencies. Schools of nursing responded and added information technology education and training to their curricula (Tschetter, Lubeck, & Fahrenwald, 2013).

The 2015 IOM follow up report, *Assessing Progress on the Institute of Medicine Report The Future of Nursing*, (hereafter referenced as 2015 IOM report) identified significant progress made towards meeting the initial recommendations outlined in the 2010 IOM *The Future of Nursing* report. The 2015 IOM report tangentially addressed the significance IT plays in the work practice environment of RNs because of the rapid advances and changes in IT mobile and digital health tools. Additionally, the 2015 IOM report identified the need and expectation for RNs to engage in “lifelong learning” to work effectively in dynamic, complex healthcare environments. The challenge to remain competent applied not only to the individual nurse, but also to nursing professional organizations, nursing education institutions, and nursing professional societies.
Problem Statement

The literature indicated that IT in healthcare was pervasive, current and will continue into the future (HIMSS, 2011; Huston, 2013; McGonigle et al., 2014). The 2015 IOM report did not address the responsibility of nurse leaders, working within healthcare systems, to ensure nurses maintained and expanded their information technology competencies in the work setting. Having the knowledge, skills, and aptitudes in IT empowered nurses to influence the design of IT applications, participate in decisions on purchases, and create the education and training required to fully implement the new technologies (Sherwood & Zomorodi, 2014). Chief Nursing Officers (CNOs) could support lifelong learning through providing supportive processes that empower nurses to acquire the knowledge and skills to be effective in their roles (Davis, Taylor, & Reyes, 2014).

There has been a paucity of literature on how CNOs assure the ongoing education and training to maintain nurses’ IT competencies in the practice environment. Chief Nursing Officers have been on decision-making boards and have participated in the implementation of broad, diverse, information technologies (McGonigle et al., 2014). It has been the responsibility of CNOs to provide resources for ensuring continued efforts in staff knowledge development in the IT arena (HIMSS, 2011; Huston, 2013; Simpson, 2013).

As mentioned previously and supported in the literature, technology has changed the nursing practice environment at “warp speed” (Huston, 2013). According to Huston (2013), there were seven emerging technologies that changed how nurses practiced: genetics and genomics, less invasive and more accurate tools for diagnosis and treatment, 3-D printing, robotics, biometrics, electronic health records, and computerized physician/provider order entry and clinical decision support. The challenges for practicing nurses were the new skill sets nurses
would need in order to learn and integrate the new technologies. The skills included the ability “to use technology to facilitate mobility, communication and relationships; having expertise in knowledge information, acquisition, and distribution; and understanding and using genetics and genomics in nursing” (Huston, 2013, “Nursing Skill Set Needed,” para. 1). Chief Nursing Officers faced the challenge of integrating the new technologies into the work environment (HIMSS, 2011; McGonigle et al. 2014). They needed to ask how nurses have adapted and incorporated new technologies into their practice and how these nurses have been supported by their CNOs to enhance their IT knowledge and competencies since they entered the workforce.

**Purpose Statement**

The purpose of this DNP project was to create an ongoing information technology training program focused on nurses’ use of the electronic health record.
CHAPTER II

Literature Review

An emerging dilemma for CNOs has been how to provide nurses with ongoing information technology education and ensure competencies. The nursing literature has few articles addressing the ongoing informatics educational needs of staff nurses. There has been much work done by the Quality and Safety Education for Nurses (QSEN) project focused on IT competencies for baccalaureate and graduate nurses in school (Sherwood & Zomorodi, 2014). However, there has been a limited focus for the practicing bedside nurses who have been required to incorporate multiple information technologies into their clinical practice (Beckham, Schaar, & Riedford, 2015; McBride, Delaney, & Tietze, 2012). The following sections explored these gaps and how other professions maintained ongoing education.

Search inclusion criteria for this literature review focused on studies published in the last five years due to the rapidly changing world of information technology. The Cumulative Index to Nursing and Allied Health Literature (CINAHL) database was reviewed utilizing keywords information technology, nurses and information technology, nursing informatics education, and staff nurses and informatics technology. The review initially yielded 2,769 articles; then the inclusion criteria of five years, English language, and peer reviewed was applied which yielded 56 articles. After a manual review of the 56 articles, only 20 articles directly applied to nursing, informatics, and education. This author also manually searched the Journal of Nursing Informatics from 2010-2016 using the same search criteria and identified five additional articles related to nursing informatics, staff nurses, and education. Due to the paucity of articles identified in CINAHL, this author expanded the search to the Education Resources Information Center (ERIC) search database used for educational professionals and the business databases
within the University of Nevada, Las Vegas library in search of relevant information. Using the same search criteria, this author identified 221 articles. Six articles were relevant after refining the search to academic journals, English language, peer reviewed, and the 2010-2016 date range.

**Barriers and Knowledge Deficit**

There were few articles describing the ongoing educational needs of staff nurses in relation to expanding or enhancing their information technology (IT) competencies. Most of the literature focused on the work done in response to the IOM 2003 report *Health Professions Education: A Bridge to Quality*. In this report, the medical, nursing, and pharmacy educational institutions were challenged to create curricula in which healthcare professionals developed specific core competencies focused on the delivery of patient care through teamwork and collaboration, provided evidenced-based care, applied quality improvement principles, and utilized IT to mitigate errors and support clinical decision-making (IOM, 2003). Nursing responded by creating the Quality and Safety Education for Nurses (QSEN) project that provided new knowledge, skills and attitudes “that changed how nurses work” (Sherwood & Zomorodi, 2014, p. 15). Nursing added a sixth competency focused on safety for both patients and clinicians through creating effective systems and having accountable, competent practitioners (Didion, Kozy, Koffel, & Oneail, 2013). QSEN did not focus on providing education for licensed registered nurses practicing at the bedside.

Kleib et al. (2010) reported very little was known about nurses’ continuing education in informatics despite how integral informatics has been in providing care at the bedside. Kleib et al. (2010) used the National Sample Survey of Registered Nurses (NSSRN) data from 2000 to identify the type of formal continuing education an RN completed in the previous year. The sample included all RNs in the 50 states and the District of Columbia. The response rate was
65.9%. Findings included: 21% of the nurses taking continuing education in informatics, RNs older than 64 years reported taking informatics courses less than other age groups, Caucasian females were more likely to complete a course than male RNs, and there were no statistical differences in taking an informatics course related to a nurse’s educational preparation. In 2012, the Health Resources and Services Administration (HRSA) stopped conducting the NSSRN survey as the Robert Wood Johnson Foundation asserted the data did not accurately forecast the nursing workforce demand and supply ("RN Data," n.d.; Wood, 2012).

This author could not locate any contemporary articles or survey data related to continuing education on informatics since Kleib et al.’s work in 2010 for nurses despite how technology impacted and transformed the delivery of nursing care over the past sixteen years (Huston, 2013; Mitchell, 2011). Kleib et al. (2010) and Mitchell (2011) described how nurses may stay current with IT knowledge and competencies through attending conferences, taking online education modules, completing self-study programs, pursuing a formal degree in nursing informatics, and reading professional journals. Nurses may pursue nursing informatics specialty certification through the American Nurses Credentialing Center as another method for enhancing their informatics knowledge and competencies (Mitchell, 2011).

Topkaya & Kaya (2015) studied nurses’ attitudes towards computers and computer literacy. They defined computer literacy as “the ability to use a computer” (p.141) and the ability to manipulate the computer to provide the desired information for achieving specific objectives. The study demonstrated a positive correlation between a nurse’s attitude toward computer usage in healthcare and the nurse’s ability to utilize the different software and hardware capabilities of the computer. The authors’ work suggested the importance of ensuring that nurses adequately utilized the computer and, by doing so, the nurses would successfully use
information technology. From an organizational and leadership perspective, ensuring nurses were comfortable with various information technologies aided in full integration and usage (Scott, 2015; Sockolow, Rogers, Bowles, Hand, & George, 2014).

Chief Nursing Officers have not been immune to needing information technology competencies in the work environment. It has been the CNO’s responsibility to understand and apply IT competencies to ensure cost-containment, improved workflows, budgeting, evaluating patient outcomes and evidence-based practices, and understanding the large amounts of raw data they encounter (AONE, n.d., McGonigle et al., 2014; Simpson, 2013; Sockolow et al., 2014). Additionally, it has been the CNO’s responsibility to understand nurses’ workflow and practice patterns and ensured implementation of IT tools that supported bedside nurses’ work, maximized efficiencies, and assured quality patient care was delivered (McGonigle et al. 2014). CNOs need to ensure chosen and implemented IT systems were interoperable and maintain patients’ security and privacy of their medical data as well (Simpson, 2013).

The data-information-knowledge continuum provided an explanation as to how nurses progressed in developing IT competencies (Kimmel, 2012; McGonigle et al., 2014). Along the data-information-knowledge continuum, nurses initially gathered raw data that was used to make decisions one data point at a time. The data did not have meaning until one added the context, which occurred in the next phase of the continuum. In the information stage, nurses utilized the data to generate reports, and the clinical information systems and dashboards to help make clinical decisions. Drill-down capabilities existed within the dashboard, but the ability to analyze the data did not exist in this phase. Analysis occurred in the last section of the continuum, the knowledge phase. The information was reviewed and compared as it related to other information and was applied for a decision. The nurse used query tools to answer specific
questions, developed key performance metrics, and benchmarked data.

Quinn & Fitch (2014) used this same data-information-knowledge continuum in their study of technology usage by new human service worker employees to prepare future Masters of Social Work students for the workforce. Their model differed in that communication was the final phase in the continuum. In their study, they explored the workers’ use of technology literacy skills in acquiring data, information, knowledge, and then communicated with others what knowledge they gained. They posited that the optimal use of technology in the four phases enhanced the efficiency and effectiveness of the new employees. By identifying gaps in workers’ proficiencies, the employers targeted educational interventions to close the gaps in knowledge. A limitation of this study was participants were surveyed on technologies that they thought were not applicable even though other professions utilized the technologies in their practice.

Continuing education has been desirable for developing and sustaining information technology competencies. The literature search identified at least two important components were necessary to create an environment supportive of ongoing educational activities in IT: enterprise architecture (EA) and lifelong learning (Tambouris, Zotou, Kalampokis, & Tarabanis, 2012). Tambouris et al. (2012) described EA as an implementation framework for educating, training, and developing nurses’ competencies in complicated, multidisciplinary processes so they could be successful. EA has best been achieved through hiring of a staff person whose focus was implementing the training programs in which staff received iterative training on the desired competency. An attitude of lifelong learning made it more likely for staff to learn new competencies and information related to IT. Engaging in lifelong learning has been an expectation as a professional nurse and has been articulated in the 2010 and 2015 IOM Nursing
reports, published in the American Nurses Association *Scope and Standards of Practice* ("Scope and Standards of Practice," 2010), and listed as one of the American Organization of Nurse Executives competencies (AONE, n.d.). Davis et al. (2014) studied the characteristics and elements required for lifelong learning. They used the Delphi method and in three phases surveyed nurses on defining what lifelong learning looked like in their professional and personal lives. Nurses described being inquisitive, curious, and seeking new knowledge in their work and at home. Key to the authors’ findings were nurses’ expectations of translating the new knowledge gained and applying it in their lives. Both studies, Davies et al. (2014) and Tambouris et al. (2012), demonstrated a continuous focus on learning and engagement were necessary to increase one’s knowledge and skills. These have been important concepts when creating an ongoing information technology education.

**Summary**

This author found a paucity of studies related to nurses’ ongoing education for IT education and development of IT competencies. This author found one study by Kleib et al. (2010) that reviewed nurses’ focus on improving their IT education. It has been 16 years since nurses responded to how they maintain ongoing education in IT. Despite the increase in technology used by nurses to do their work, the literature provided little expansion of knowledge on how best to create a work practice environment whereby their IT knowledge and skills kept pace with the changes. This author reviewed studies to understand what educational interventions were needed to engage staff nurses in validating their IT knowledge and competencies. Exploring other professions such as education and business informed nursing on ways in which ongoing education in IT knowledge can be achieved.
**Needs Assessment**

Based on the review of the literature, there was little information for ongoing education in information technology (IT) for nurses related to the electronic health record (EHR). Since the literature did not provide much direction on how to accomplish ongoing education of nurses in IT, this author had to be creative and innovative in aligning resources and designing a program. From this author’s lived experience as a CNO, it was imperative to gain a better understanding of how to maintain nurses’ full use of IT capabilities in the EHR to provide safe, quality care. During this author’s professional career observing others working with EHR, their skills varied from novice to expert the longer they worked with the EHR. When nurses were not proficient in navigating the EHR and assimilating patient data, they have been less efficient and could not locate critical information which may have delayed care, caused frustrations, and contributed to staff turnover.

**Population Identification**

This project involved creating an ongoing information technology training program for registered nurses (RNs) working on a medical unit at a Veterans Health Administration (VHA) hospital located in the southwestern section of the United States. Based on this author’s interview with the Associate Nurse Executive for Education (ANE/E), the Associate Nurse Executive for Inpatient (ANE/I), and the Medical Unit Nurse Manager (MUNM), there was no ongoing educational program focused on maintaining nurses’ knowledge in the information technology applications used by the medical unit nurses in the EHR, which has been known as the Computerized Patient Record System (CPRS) in the VHA system. The only formal time nurses were provided CPRS training was one afternoon during nursing orientation, which has
been the week following new employee orientation.

Two recent surveys during the past 30 months at one VA facility identified nurses’ lack of knowledge related to navigating through CPRS to locate patient information to provide care. After the first survey identified the knowledge gap, a one-time intensive educational intervention consisting of group education, a printed process guide and the link to the electronic copy on the facility intranet page, and testing was provided to staff nurses in the inpatient units (intensive care unit, step down unit, medical, surgical and mental health units) by the Nurse Informaticist. Nurses who did not pass the test were provided one-on-one education by the Nurse Informaticist. The second survey, eighteen months later, identified a knowledge gap for nurses navigating through CPRS. During a mock survey, the ANE/I observed staff having difficulty navigating CPRS to answer the questions asked by the surveyor. This continued theme of nurses’ inefficient use of CPRS, highlighted the need for ongoing information technology education to utilize the capabilities within CPRS to have the knowledge needed to make clinical decisions regarding patient care.

The medical unit RNs were the target population for developing an ongoing information technology education process. The RNs worked on a 24-bed medical unit. The rooms were all private and wired for telemetry. There was a bedside computer in each room, computers on wheels, and computers at the nurses’ station. Staffing for the unit included a Nurse Manager, an Assistant Nurse Manager, 43 RNs, 15 Nursing Assistants (NAs), five Medical Support Assistants (MSAs), and one Advanced Medical Support Assistant (AMSA). The RNs were included in this project because they are the team leaders and were responsible for providing patient assessments. The RNs needed to have the most up-to-date information and knowledge of how to find the information to provide optimal care. All other nursing employees were excluded (CNAs, MSAs,
Project Sponsor and Key Stakeholders

The project sponsor was a federal health care facility located in the southwestern part of the United States. The medical center consisted of 90 inpatient hospital beds, four primary care clinics, one community based outpatient clinic, and one rural outpatient clinic. The facility offered a wide variety of services in primary, surgical, medical, and mental health care. The medical center was part of an integrated federally funded healthcare organization that has facilities nation-wide.

Key stakeholders included internal and external parties that were interested in the outcome of this project. Key internal stakeholders who partnered with this author included the Nurse Manager of the medical unit, the Nurse Informaticist, the Associate Nurse Executive/Education, the Associate Nurse Executive/Inpatient, Nursing Education, and staff nurses who worked on the medical unit. Other internal stakeholders who were tangentially impacted by the project included physicians, residents, medical students, quality management staff, biomedicine technical staff, and Office of Information staff. External stakeholders included patients and their family members, contractors, local pharmacies, home health agencies, and dual-care community partners.

Organizational Assessment

The Computerized Patient Record System (CPRS) has been used by the Veterans Health Administration (VHA) since 1997 (Tong, 2012). This electronic health record (EHR) is an integrated, nation-wide system that has been used at more than 150 medical centers and more than 819 community based outpatient clinics, serving 8.92 million enrolled Veterans
(Department of Veterans Affairs [DVHA], 2014). The CPRS allowed clinical staff to access all Veterans’ health information regardless of where the Veteran lived or presented for VA care. For instance, if the Veteran lived in Oregon and traveled to Maine to seek care at the local Veterans Affairs hospital, the Maine clinical staff could see the care the Veteran received in Oregon. The staff accessed the Veteran’s medications, labs, procedures, radiology images, advance directive, hospital admissions, and clinic appointment notes. All VA care the patient received was available in CPRS if one knew how to retrieve the information. As such, having the knowledge and competencies for retrieving pertinent clinical information was necessary to work effectively within this healthcare system.

There was no adequate process in place to identify the skill an employee had with utilizing CPRS. There was no established program for assessing or providing ongoing staff educational needs in IT. After discussions with representatives of the Nursing Education Department and Nurse Manager, it was clear that nurses were not fully utilizing all the capabilities in CPRS. As a result, the medical unit Nurse Manager agreed that more education related to CPRS was needed and would benefit the medical unit RNs.

**Assessment of Available Resources**

This author utilized resources within job requirements, assembled a team, set expectations, and identified time for nurses to attend the CPRS training the Nurse Informaticist developed thirty months ago, after the first mock survey identified the need for additional training. The resources needed for implementation of this project were individual computers, space, supplies, and time. Space was needed to conduct the educational intervention and the facility computer room was used for hands on demonstration of navigating through CPRS. Supplies included materials to produce handouts and flyers which were posted in the medical
unit nurses’ lounge and work areas. The content developer, the Nurse Informaticist, was the subject matter expert and provided the education and training to the staff. Nurses received a thank you bag with candy, lip balm, and hand sanitizer from this author. There were no nurses who required more time to master the presented material, so the simulation lab was not needed to help cement the nurse’s knowledge to meet the education objectives. The Nurse Manager arranged staffs’ schedules to they could attend the training. Leadership recognized the importance of ensuring nurses’ competency in navigating CPRS. As a result, they supported the project by allocating nurses’ time to participate, use the computers, and provided training space.

**Team Selection and Formation**

This author formed a team with members who had expertise in the Computerized Patient Record System (CPRS) and were knowledgeable in providing education and training programs. This author was the team leader, the sponsor, and process owner. Team leader responsibilities included providing the vision and scope of the project, assuring the project progressed as designed, and addressed any barriers. The following paragraph outlined the team members who participated in the project.

The ANE/E and one of the Nurse Educators supported the development of the education program and created the class registration in the facility educational tracking system. The Nurse Informaticist provided the content for inclusion in the educational program and provided all the training. She was chosen because of her knowledge and expertise in navigating the CPRS record and she had good rapport with the nurses. She was the only instructor of the training sessions to ensure the course content was consistently covered with the nurses. The Nurse Manager of the medical unit facilitated buy-in of the project and provided frontline input based on her knowledge of the employees and their workflow. The ANE/Inpatient was the ad hoc team
member, but her assistance was not needed. No other participants were needed for the project.

**Cost-Benefit and Analysis**

Lack of knowledge in navigating and efficiently using the Computerized Patient Record System (CPRS) could have contributed to unnecessary costs, staff frustrations, and potential patient safety issues (Miller et al., 2014). Nurses from the Veterans Health Administration (VHA) filed a lawsuit against the agency for uncompensated work that was related to the use of CPRS (Wallis, 2016). Nurses cited charting as a reason for needing to work past their scheduled shift. Their claim has been supported in the literature (Clavreul, n.d.). Nurse Managers corroborated this need and cited overtime costs in their reports to the CNO. From this author’s lived experience, charting contributed to overtime costs as noted from direct observations of nurses staying past their scheduled work shift to complete charting, conversations with nurses that revealed that they extended their shift to complete charting, and review of overtime requests in the timekeeping system.

Using the medical unit as an example, if each nurse on this unit worked one hour of overtime per paid period over the course of a year, it could potentially cost this organization $353,873.52, assuming all 43 nurses worked overtime. In fiscal year 2015, this unit accrued approximately $20,000 in overtime costs. A portion of these costs could have been attributed to charting beyond a scheduled shift based on the reports and interactions outlined in the previous paragraph. Besides the hard costs evident in overtime paid out, there were reports in the literature and lawsuit, that peer pressure resulted in nurses not requesting overtime to complete their documentation (Clavreul, n.d.; Wallis, 2016). This implied that the overtime costs for fiscal year 2015 were an underreporting of actual costs associated with inefficient use of the IT tools available. One reason cited for not completing charting requirements was the inability to
efficiently navigate through the chart (Clavreul, n.d.). In addition to the tangible costs associated with lack of training and competency with IT, there were other costs. These included nurse turnover, low staff morale and burnout, and quality of care concerns.

Staff frustrations with CPRS could have contributed to staff turnover. This author spoke with nurses who admitted to leaving the agency due to frustrations with CPRS. In the 2015 National Healthcare Retention & RN Staffing Report, the turnover rate for medical/surgical RNs was 21.7% at a cost that ranged between $36,900 to $57,000 per RN, resulting in average costs to hospitals of $4.9 to $7.6 million (Nursing Solutions, Inc. [NSI], 2015). With each percent change in turnover, the hospital saves/loses approximately $379,500. For hospitals located in the west, the total RN turnover was 18.0% compared to the national average of 16.4%. Of the three categories surveyed, government-acute care had the highest total turnover of 29% compared to for profit-acute (16.2%) and non-government/non-profit-acute (17.1%) (NSI, 2015). The RN turnover where the hospital project was conducted was 10.2% and the medical unit turnover rate was 4.5% (U. S. Department of Veterans Affairs, FY 2015, Quarter 4). Both facility and medical unit turnover rates were higher than the VHA turnover benchmark rate of three percent. The facility and medical unit turnover was lower than the NSI 2015 report, but higher than the VHA national report, which made nursing retention a focus for the CNO.

Ensuring a work environment that supported nursing practice could have helped with recruitment and retention (NSI, 2015). Surveying staff demonstrated a 78.6% effectiveness in retention (NSI, 2015). Annually, the organization participated in a national All Employee Survey (AES) in which employee opinions were solicited on varied topics including overall satisfaction, satisfaction with leadership, and burnout measured by exhaustion, depersonalization, and reduced personal achievement (Department of Veterans Affairs [DVHA],
Employees rated their feelings on a satisfaction scale ranging from 1, very dissatisfied, to 5, very satisfied, with higher scores representing greater satisfaction. For the medical unit, the staff rated their overall satisfaction as 3.61 compared to the facility score of 3.52 and a VHA national score of 3.64 (DVHA, 2015). The medical unit staff were more satisfied than their colleagues working in other areas of the local facility and they were close to the national average for satisfaction.

Despite the medical unit staff demonstrating less burnout and being generally satisfied with their work environment, the nurses identified opportunities for improvement through better utilization of CPRS in identifying earlier changes in a patients’ conditions and enhanced communication with team members. Avoidable adverse events such as in-hospital complications and healthcare associated infections were higher than the nationally reported VHA benchmarks (U.S. Department of Veterans Affairs, FY 2015, Quarter 4). For hospital complications and healthcare associated infections, staff nurses identified issues from direct observation of the patients. The medical record provided clues based on the nurses’ ability to synthesize data from varied sources such as lab, consultative notes, and trended vital signs that added to the nurses’ knowledge of the patient and augmented their observations and interventions. For instance, patient discharge education has been shown to reduce hospital readmissions (Naylor, 2012). Nurses played a critical role in patient education, discharge planning, and their ability to retrieve information from CPRS has been a necessary competency.

There have been many benefits to utilizing an electronic health record that positively impacted patient outcomes and nurses’ work. There several examples in the healthcare literature which demonstrated the improvement in quality of care when healthcare staff utilized integrated health information technology (U.S. Department of Health and Human Services [HHS], 2012).
Not only did the quality and safety of care improve, but also there were improved efficiencies, reductions in the costs of care, increased patients’ participation through their accessing their medical records, and improved diagnostics and outcomes (Kronick & Po, 2013; Wendel, O’Donohue, & Serratt, 2014).

The benefits of the training were difficult to quantify. However, one could hypothesize that with more CPRS training, the nurses would be more efficient and find the clinical information they needed to care for the patient easier and faster. It was assumed that the nurses’ satisfaction with their work environment could improve and lead to less turnover, thereby decreasing the costs of recruitment and increasing retention. Another positive opportunity may have been that patient outcomes improved as the nurse could more readily access clinical information about the patient’s condition, enhancing the decision-support, and care coordination (Health IT, n.d; Miller et al., 2014.). This may have translated to decreased lengths of stay or improvements in nursing sensitive indicators, such as decrease in falls, hospital acquired infections, or pressure ulcers (Miller et al., 2014). Lastly, patient satisfaction could have improved as the nurse may not have repeated questions asked by other clinicians, the nurse would have been more informed, and the nurse could have shared the information more readily with the patient and the patient’s family.

**Scope of the Project**

The scope of this project focused on creating an ongoing information technology training program and nurses’ use of the electronic health record on one medical unit in a hospital located in the southwestern part of the United States. Education was provided in small groups with the expectation that most (target 80%) of the nurses were trained in the fall of 2016. Education was provided over varied shifts to ensure all employees on the unit had an opportunity to attend.
Material was presented in a module format and there were multiple educational offerings. This structure provided opportunities for nurses to participate during their regularly scheduled work shift. For purposes of this project, only registered nurses (RNs) assigned to the medical unit were included. If the project proved successful, it may be adopted by the facility for roll out to other disciplines and units. The Nurse Manager supported RNs’ participation in this project. It was the responsibility of this author to coordinate and assimilate the content into an education program and develop a training plan.

**Mission, Goals, and Objectives**

The mission of this project was to enhance patient safety by giving the nurses the tools available in CPRS to make informed clinical decisions and communicate care effectively. The goals of this project were to improve nurses’ ability to navigate through the CPRS process, hardwire the process for providing ongoing education for staff nurses to reinforce the concepts learned, and sustain the program by creating super users within the unit. Super users are staff nurses who become the subject matter experts and serve as a resource for other nurses on their unit, especially new nurses. The objectives were to use an already existing curriculum and modify it into modules, collaborate with the Nurse Manager, Nurse Educators, Nurse Informaticist, and Staff Nurses to set up an education calendar to train most of the staff in the fall. This author presented the results of this project to leadership for consideration of expansion to other units and disciplines. The goal of this project was to combine the various educational tools available and create an ongoing information technology training program focused on nurses’ use of the electronic health record for the nurses on the medical unit. The objectives of this project were for nurses on the medical unit to utilize CPRS to improve their efficiency and ability to find information in the medical record to provide safe patient care.
CHAPTER III

Theoretical Underpinnings

Underpinnings have been important foundational knowledge upon which a doctor of nursing project is built (Eldridge, 2014). This author’s individual and collective experiences provided the philosophical framework for developing an ongoing information technology training program. There were two theoretical underpinnings for this project. As this was a project focused on skill development of staff’s use of information technology in practice, Dr. Patricia Benner’s (hereafter referenced as “Benner”) Novice to Expert Theory was used. The knowledge and learning theoretical framework was based upon Malcolm Shepherd Knowles’ Adult Learning Theory. Two different theorists were used to create the underpinnings of this project as each one provided foundational knowledge which helped enhance nurses’ use of the electronic health record (EHR).

Benner’s theory of Novice to Expert Theory focused on skill acquisition or the “know how” of doing things. Her model was not based on a trial and error approach of skill development for nurses, but was based upon work done by two University of California, Berkeley professors. Dr. Stuart Dreyfus, a mathematician and systems analyst, and Dr. Hubert Dreyfus, a philosopher, studied how chess players and pilots developed the skills and knowledge to perform their activities and work. Because of their work, they created what was known as the Dreyfus Model of Skill Acquisition. Dr. Benner posited that nurses’ skill development was much like pilots’ skill development whereby it was not a trial and error approach, but an incremental skilled performance based on education, knowledge development, and experience (Benner, 1982; Benner, 1984; Benner, 2004). Having a sound educational base coupled with experienced-based skill acquisition allowed the nurses to perform with good judgment in actual
Benner’s Levels of Skill Development

**Level I: Novice.**

In Benner’s model, nurses could pass through up to five levels of proficiency, but not all do, when acquiring and developing skills. As nurses progressed through the different levels, nurses moved from relying on abstract principles to using past experiences to guide practice, and as experience grew, nurses viewed the practice setting as a sum of its parts versus individual relevant bits of information (Benner, 1982). In the first phase of Benner’s model, novice nurses had no previous experience in which to base their nursing actions, so nurses’ practice were governed by rules and what was taught for specific situations. For example, a patient’s fluid status needed to be assessed and so the novice nurse did what was taught in school. The nurse measured the patient’s intake, output, and weight. Having rule-governed behavior was both safe for the nurse and patient. However, the lack of experience could have led the nurse to doubt the assessment. Novice nurses required close oversight of their practice. In this has been done through transition to practice programs or having an assigned preceptor during the first six to twelve months of practice (Department of Veterans Affairs Veterans Health Administration [VHA], 2011).

**Level II: Advanced Beginner.**

Stage 2 of Benner’s model addressed advanced beginner nurses. These nurses had some experience which guided their actions based on recognizing situations because of having more experience. These recurrent situations were termed “aspects” and were a result of having either lived the actual experience or someone pointed them out such as a mentor (Benner, 1982). Aspects were “global characteristics that required prior experience in actual situations for
“recognition” (Benner, 1982, p. 403). Advanced beginners were given guidelines for actions based on the aspects and situations presented, however, advance beginners lacked the ability to determine the differential levels of importance.

Benner illustrated this point in her book, *From Novice to Expert Excellence and Power in Clinical Nursing Practice*, with a new intensive care unit nurse ICU. The nurse’s mentor gave the advanced beginner nurse explicit instructions on how to care for the ICU patient, however, the advanced beginner nurse could not determine which step to do in terms of priority as all steps were weighted the same in terms of criticality despite the patient’s changing condition. Due to the novice skill level of the nurse, little of the situation was taken in because everything the nurse did was new. The advanced beginner nurse’s focus was on the rules and what had been taught. Anything else that occurred did not register with the nurse and when the advanced beginner nurse realized another patient needed attention, the nurse was unsure of how to prioritize the patients’ care needs.

In the advanced beginner phase, nurses and mentors focused on aspect recognition by practicing until competency was mastered for a particular skill. Advanced beginner nurses needed continued support until they could prioritize appropriately based on the clinical presentation of the patient. As advanced beginner nurses progressed in their clinical development, nurses recognized recurring patterns and intervened accordingly. This developmental phase required back up by competent, skilled nurses as patient care could have been compromised should advance beginner nurses fail to recognize patients’ needs (Benner, 1982).

**Level III: Competent.**

Competency development usually occurred under the right conditions within two to three
years of nurses’ practice. This phase has been characterized by nurses who see their clinical care delivery in terms of long-range goals or plans for patients. Nurses in this phase prioritized patients’ care needs because they developed the ability to recognize attributes and aspects of patients’ condition. Nurses were no longer rules based in interventions, but performed perform “conscious, abstract, analytic contemplation of the problem” (Benner, 1982, p. 404). Many nurses did not progress beyond the competent stage because this stage was seen as ideal by institutions and supervisors and they reinforced competent types of behaviors (Benner, 1982). Additionally, competent nurses did well completing the standardized procedures and processes designed by the organization, thus reinforcing this level of practice. Most education, training, and in-services have been targeted to competent nurses. Competent nurses benefited from simulation exercises and games which provided a practice environment to help them develop competencies in organizing, planning, and delivering care to multiple, complex patients.

Benner provided an example of a competent nurse’s performance in the article *From Novice to Expert* (Benner, 1982). The competent nurse described how she transitioned from advanced beginner to a competent level by how she organized and prioritized the care for patients. As an advanced beginner nurse, she bounced from one patient and performed a task to another patient and performed a task. Over time, she learned how to prioritize and plan the care for each patient based on a quick assessment she performed at the beginning of her shift. Now, instead of being unorganized and chaotic in how she approached her work, she outlined a plan of care and conducted a quick check on each patient at the beginning of her shift. The major differences between the advanced beginner and the competent level was the nurse perceived her actions in terms of long range goals or plans, could identify subtle changes in a patient’s condition, and applied experiences gained in one setting or with one population to another.
**Level IV: Proficient.**

In the proficient phase, the nurse’s performance was guided by what Benner referred to as “maxims” (Benner, 1982, p.405). A maxim was a truth or principle that the nurse utilized to assess and respond when providing care. The proficient nurse saw the whole picture and the most important aspects stood out and were addressed. Often the nuances the proficient nurse recognized and responded to were unintelligible to the advanced beginner or competent nurse. By having a deep understanding of the situation, the proficient nurse acted based on maxims grounded in previous experiences. Proficient nurses learned best through case studies where they used their past experiences and determined a course of action for the patient. Typically rules and principles frustrated proficient nurses as they would provide examples of when the rule or principle did not apply in a clinical setting.

An exemplar that highlights a proficient nurse’s performance was described by Benner in her article *From Novice to Expert* (Benner, 1982). A proficient nurse explained how she weaned a patient from the ventilator by reviewing a patient’s vital signs, and based on the numbers, assessed if there was anything wrong with the patient. The nurse was trying to determine if the patient’s anxiety for being weaned off the ventilator was related to his inability to breathe or if he was just afraid. In the nurse’s assessment, she contemplated other situations where she had weaned patients from the ventilator to help determine what needed to occur, what would occur, and any difficulties that could have resulted during the weaning process.

**Level V: Expert.**

Not all nurses achieved an expert level of practice during their career. Nurses who were expert clinicians relied heavily upon their past experiences and had an intuitive understanding of the situation and reacted accordingly. Their actions were laser-like and were derived from their
vast experience and understanding of the situation. Often times, they were unable to articulate why they did what they did other than to say, “it felt right.” In new situations, the expert nurse used analytical tools to help identify when things were not progressing as expected.

Benner shared an exemplar by an experienced psychiatric nurse who identified a patient who was angry and not psychotic (Benner, 1982). The physician believed the patient to be psychotic, however, the nurse challenged the physician to perform a Minnesota Multiphasic Personality Inventory (MMPI). An MMPI is a psychological test that assessed personality and psychopathology of people suspected of having mental health issues. The MMPI results supported the nurse’s assessment that the patient was angry, not psychotic.

**Summary of Benner’s Levels**

Benner’s use of the Dreyfus model described nurses’ development of their clinical skills and competencies provided an underpinning for creating an ongoing training program for information technology and nurses’ use of the electronic health record (EHR). The different practice levels represented movement from reliance on concrete, rules-based instructions to abstract principles and perception, and understanding of equal bits of information to the whole picture where nurses sifted out the irrelevant parts. When nurses were faced with unfamiliar situations or were in new roles, they may have reverted to being novices or advanced beginners in their practice. This could have been the case with nurses when they were learning new information technologies like the EHR. As nurses acquired new skills, their perceptions and judgements changed.

Benner provided critical information regarding the construction of educational trainings and how they were geared toward the competent nurse. This information has been utilized to determine the best educational approach based on unit demographics as the education was
tailored and adjusted to fit the predominant level of practice (novice, advanced beginner, competent, proficient, or expert). For nurses practicing at the proficient and expert levels, case studies have been utilized to promote competency of the EHR. Benner also described the use of simulation and practicing to help assist nurses’ in their skill and competency development. A competency based curricula allowed for variances of actions nurses take when providing patient care. Benner referred to these as critical incidents where nurses were exposed to situation-based descriptors enabling the nurse to link the situation to patient outcomes. She described these as ‘aha’ moments (Carlson, Crawford, & Contrades, 1989). In sum, Benner’s work provided the framework for how nurses acquired and transferred skills, knowledge, and competencies, enabling the facilitator of a training program to tailor the content and format to the level of the nurse and the ideal approach based on experience level.

Malcolm Shepherd Knowles’ Adult Learning Theory

As education for adult learners was one of the components of this author’s DNP project, it was necessary to incorporate an educational underpinning to provide the framework for the project. The educational underpinning chosen was based on the work of Malcolm Shepherd Knowles Adult Learning Theory. He was an American educator who focused on developing a framework for adult learners called Andragogy, which has been synonymous to the adult education (Pappas, 2013). Andragogy means any type of adult learning and Malcolm Knowles equated andragogy as the art and science of adult learning (Pappas, 2013). In Knowles’s theory, there have been five assumed characteristics of adult learning.

The first characteristic was the notion of self-concept. This occurred overtime as people moved from needing direction to becoming independent and self-directed. The second characteristic involved the growing reservoir of knowledge and experience people gained as they
mature into adulthood. As a result, there were more experiences from which to draw from and these acted as a resource for future learning. The third characteristic involved a people’s readiness to learn. Knowles believed that as people moved into adulthood, their openness and willingness to learn increased due to the need to assimilate into society and adopt social roles (including work). In the fourth characteristic, an adult’s orientation to learning grew from one of postponed application of the learned material to one where the knowledge was used immediately. Additionally, the learning focus shifted from being one of subject centered to solving problems (Pappas, 2013). The last characteristic was motivation for learning and was internally driven. In addition to the five characteristics for adult learning, Malcolm Knowles added four principles of andragogy.

The four principles of andragogy as they applied to adult learning have been discussed in the following comments. The first principle was when adults were involved in the planning and evaluation of the materials they were taught. The second principle of adult learning was that experience was the basis for the learning activities. Adults learned from successfully completing the learning activities as well as the mistakes encountered while learning. Principle number three addressed the need adults have in learning what subjects have immediate application to their work and life. Lastly, adult learning was best focused on problem-solving versus content (Pappas, 2013).

Pappas (2014) applied andragogy to adults’ eLearning and extended Malcolm Knowles’ four principles for eLearning. This work had applicability by explaining how to construct the ongoing training program for nurses using an EHR. First, for maximum benefit of learning, adult learners needed to feel they were playing an active role in their learning experience through the development and implementation of the curriculum and the evaluation process. Second,
experience was the foundation of designing the learning tasks and activities. The process of learning was most important for adult learners because they needed time to explore the content and experience the material. By following this process, it helped adults retain the information taught. Next, incorporated the learners’ backgrounds into the learning activities to draw from all levels of expertise within the group. Real life applications and benefits needed to be evident in the learnings so adult learners could see how a module or an activity has given them an advantage (e.g. simulation, scenarios). Lastly, adults learned best when they discovered new knowledge on their own without being dependent on others. The instructor served to help guide people when they make mistakes.

Conclusion

Benner’s and Malcolm Knowles’ theories worked well as the theoretical underpinnings for skill acquisition and adult education and learning as it related to information technology. The information technology education provided the training for nurses to perform their work. Malcolm Knowles provided the framework of how best to introduce the content that was needed for the nurses (adult learners) to receive the information related to their job (immediate need for information) to perform their duties (acclimating into societal roles). It was through Benner’s work, which explained how people acquired new skills (competency to navigate and use the computer) in the course of their work that applied to this author’s DNP project.

The theories described by Benner and Malcolm Knowles were complementary. Together, they provided an understanding of how nurses gained knowledge and competency in using an EHR. Adult learning theory explained how nurses gained the knowledge needed to manage the rules, regulations, laws, and dynamics governing information technology usage with the skills needed to manage complex patients within a complex healthcare system. Simulation
acted as the bridge between knowledge and skill acquisition (Clapper, 2014; Benner, 2004; Hansen & Bratt, 2015). A constructed reality like simulation allowed for intuitive links to develop between seeing and responding to situations. The use of simulation allowed for a nurse to develop the psychomotor skills and critical thinking needed to perform one’s duties and simulation provided the ability to assess the nurse’s competency under controlled circumstances. Simulation allowed for collaborative, experiential learnings. Also, simulation exercises were structured so they were meaningful and challenged the nurse’s knowledge. As recognition and assessment become linked with actions and outcomes, they become ‘self-evident’ to an expert practitioner (Benner, 1982). Besides simulation, there were other eLearning tools that could have been used such as Mosby’s® online clinical skills, the internet, and social media.

There were two underpinnings to support this author’s DNP project. Each theorist provided a framework to support different aspects of the project. In the DNP project, the nurses needed to develop the competencies (skills) to navigate through the EHR. Benner provided a framework on how to accomplish this by allowing facilitators to tailor the education to meet the nurses’ ability to learn and apply principles. It was the ‘how’ of the learning process. For nurses to effectively and efficiently use the EHR, they needed to ensure they were knowledgeable about the information technology. Malcolm Knowles Adult Learning theory brought the sense of just in time training and appealed to the users’ existing knowledge and internal motivation. It was the ‘why’ of the learning process.
CHAPTER IV

Project Plan

Setting.

This DNP project was conducted on a medical unit located at a federal health care facility in the southwestern part of the United States. The medical unit had 24 beds, the unit was open 24 hours a day 365 days a year, and provided services to patients with acute medical needs. There were 43 Registered Nurses (RNs), one Nurse Manager, one Assistant Nurse Manager, 15 Nursing Assistants, and five Medical Assistants assigned to the medical unit per the facility organizational chart. All the patient rooms were private and had telemetry capability. There were bedside computers in each room, computers on wheels, and computers located at the two unit nurses’ stations.

Population of Interest

The population of interest was the RNs on the unit. They were the target for this DNP project as they were the team leaders and were responsible for providing patient assessments. The RNs needed the most current patient information and knowledge on how to find the information to provide optimal care. All other personnel assigned to the medical unit per the organizational chart were excluded. After advisory committee approval of this DNP project proposal, approval from the University of Nevada, Las Vegas Office of Research Integrity – Human Subjects, Biomedical IRB was sought and the project was deemed Exempt. The Veterans Affairs Southern Nevada Healthcare System approved the DNP project proposal as a quality improvement (QI) project that was approved for implementation. All data generated from this DNP was stored securely under the project sponsor’s supervision.
Measures, Instruments and Activities

Measures.

As identified earlier, the overarching goal for this project was to develop an ongoing electronic health record (EHR) training program for staff nurses that was hard-wired into the organization’s educational plan for nurses. The creation of the training program was one goal to be achieved as a result of this project. Secondly, there were two identified objectives to be achieved as well. One objective was to increase the nurses’ efficiency for using the EHR when providing patient care. The second objective was to increase the nurses’ ability to navigate through the EHR and locate the desired information timely for providing clinical care. A survey was used to assess nurses’ confidence in their ability to navigate and find pertinent clinical information post training. Long term measurements utilized by the organization to assess performance, such as Strategic Analytics for Improvement and Learning (SAIL), or unit specific measures, such as the All Employee Survey or overtime costs, were beyond the scope and timeframe of this initial project. Also, as this was a focused project on one unit with one discipline (registered nurses), the results were not generalizable.

Instrument.

The instrument used for this project was the Post-Training Only Evaluation Survey developed by the Northwest Center for Public Health Practice (NWCPHP) from the University of Washington. This survey tool was used to assess public health personnel’s perception of training. NWCPHP was an organization that provided training, research, evaluation, and communication services to public health organizations. Their assessment, training, and evaluation tools were free for public use and may be modified based on the target audience. The tools were first offered in 2007 and were revised in 2014. The evaluation tools were grounded in
Donald Kirkpatrick’s evaluation model that he developed in the 1950s. His model was adapted and changed over time.

Kirkpatrick’s model provided curriculum developers a systematic method for evaluating the effectiveness of training programs. There were four levels in his model, and the model was designed to assess the learning objectives sequentially. The lower levels of evaluation must be completed before the higher levels of evaluation could be done. Level 1 assessed if the target audience felt the training was helpful. Level 2 assessed if the learners were more confident in their knowledge of the content that was taught. Level 3 assessed the behaviors of the learners after receiving the training. Did the learners change their behaviors in the workplace because of the training(s). Level 4 evaluated the tangible results of the trainings. Did efficiency, productivity, or performance improve? Not every level of evaluation would be possible with a training session. The evaluation level used matched the training objectives and scope of the project (Northwest Center for Public Health Practice [NWCPHP], n.d.).

As this project’s focus was an ongoing electronic health record training program for nurses, this author felt the chosen NWCPHP survey instrument assessed learners’ reactions to the training, if the provided training was useful, and if learners’ confidence increased related to the training objectives. The training objectives were assessed using Levels 1 and 2 of Kirkpatrick’s model. This author’s committee chair agreed with this assessment and supported the decision to use the NWCPHP survey instrument. This author discussed using the tool with Ms. Luann D’Ambrosio, Associate Director at NWCPHP on June 25, 2016, who shared during the conversation that the tool could be used by anyone and may be modified as needed. She requested this author to reference the tool as belonging to NWCPHP in the DNP paper, which this author has done.
After approval was given, modifications were made to the instrument template to focus the questions for a nursing audience. The assessment scales were changed so lower numbers correlated with poorer responses and higher scores reflected more positive responses. For example, in rating the training, the direction of the scale was reversed from Excellent to Poor to become Poor to Excellent. The instrument may be delivered as a paper-based survey or an electronic survey. The electronic-based survey option was used as it was an easier delivery model for this author to manage with the available resources. Other changes to the tool included removing questions focused on demographics like unit worked, state worked, organization worked, as this instrument was used on one unit, in one organization, with one discipline (registered nurses). The original survey asked trainees 14 questions. With the modifications, there were a total of 12 questions (Appendix A).

Activities.

The activities included compiling current information technology trainings and activities and organizing the content into a structured training program with elements to hardwire the process for future use. Training program content included the work done by the facility Nurse Informaticist who agreed to support this author’s DNP project (Appendix B). She produced the following content that was used in the DNP training program: VA SNHS CPRS Nurse Training User Guide & Lesson Plan, The Joint Commission (TJC) CPRS Tracer-Assessment & Training for Nurses, and The Joint Commission (TJC) Scavenger Hunt (Appendices C-E). The trainings were taken from the CPRS Nurse Training User Guide & Lesson Plan as this document has the developed lesson plans. The chosen trainings were selected based on the medical unit’s tracer results, the medical unit’s peer audits, and the Medical Unit Nurse Manager’s input. The training was ninety minutes, included a scavenger hunt, and concluded with a simulated session using the
tool, *A Day in the Life of a Nurse*, located in the *CPRS Nurse Training User Guide & Lesson Plan*. The nurses received the training in the computer training room located at the facility. The Nurse Informaticist was the instructor. Nurses who participated in the training received a small gift bag with candy, lip balm, and hand sanitizer. A thank you note was attached to the gift bag from this author.

This training structure was tailored to competent level nurses, provided simulation experiences through hands-on use of the computer, and provided an opportunity for the nurses to “play” games while navigating the EHR (scavenger hunt). This structure aligned with Benner’s theory that organizations train to the competent level of nursing practice, which was a nurse with two to three years of experience. Nurses at this developmental stage draw from past experiences, critically think about the patient’s condition, and intervened based on their assessment of the situation. They have developed the ability to organize, plan, and deliver care to multiple, complex patients.

This training plan structure also aligned with Knowles Adult Learning Theory where adults drew from past experience to learn new material. Adult learners wanted to be socially accepted and do so through knowing what to do to perform well. The nurses utilized the knowledge gained through the training immediately in their work and the structure of the training program allowed for problem solving and hands-on learning. This structure provided opportunities to cement the new knowledge versus memorizing it. The designed training program followed the principles of Benner and Knowles to optimize the learning opportunities for EHR use.

**Project Timeline**

Once the project was approved by this author’s DNP Committee in mid-August, work
began as outlined below. The project spanned eight months, from late August 2016 to March 2017.

August and September 2016
- Submitted documentation for IRB approval at the university and at the facility where the project was conducted
- Presented survey tool to employee union for concurrence to survey bargaining unit registered nurses

Late September to November
- Developed the training objectives in collaboration with the team
- Printed instrument and training resource materials
- Received IRB exempt status from facility IRB

December 2016
- Received IRB exempt status approval from University
- Conducted training sessions with registered nurses

January to February 2017
- Analyzed survey data
- Wrote results of the training and incorporated into DNP project

March 2017
- Defended DNP Project
- Submitted manuscript to the Graduate College

Project Tasks and Personnel

The project tasks included developing the training objectives and the structure of the curriculum in collaboration with the Unit Nurse Manager and the Nurse Informaticist, who
developed the content. Once these activities were completed, the training materials were combined into one resource and then printed. The project sponsor ensured the training materials were present for the classes. The project sponsor scheduled the computer room for the training sessions.

Another important task was communicating the project activities with various stakeholders. The project sponsor shared the Post-Training Evaluation Survey instrument with the union to gauge the impact on the bargaining unit registered nurses to participate in the training project. This author informed the executive leadership of the project’s scope and activities. Additionally, this author developed the marketing materials (flyers and email message) soliciting Medical Unit registered nurses’ participation in the training opportunity being offered.

**Resources and Supports**

Various resources and support were needed from a variety of stakeholders to develop the training program. Staff who agreed to directly support this author’s project and be on the team included the Medical Unit Nurse Manager, the Nurse Informaticist, and a Nurse Educator. Additional resources included supplies such as the course materials and scratch paper for note-taking. The project sponsor secured the computer training room located at the facility which had individual computers and projection capabilities for the instructor’s computer screen to be seen by the trainees.

Participants were registered for the class by the Nurse Educator via the Talent Management System which was the facility’s education tracking software. The plan included provisions for nurses who required additional training in the simulation lab. However, no one needed individual training with the Nurse Informaticist. The facility supported this project and
allocated nurses’ time for participation, the use of the computers, and training space.

**Risks and Threats**

There were risks and threats for this DNP project. Risk has been defined as “a function of threats exploiting vulnerabilities to obtain, damage, or destroy assets” (Hebda & Czar, 2013). For this project, the threat was no one participating in the developed training program, or few people participating in the program. Then, the DNP project was vulnerable and at risk for not being able to be conducted. Or, if there were few participants, the information learned from the Post-Training Evaluation Survey would not be helpful in assessing whether the training content assisted the nurses with their ability to navigate better through the EHR.

Another threat was the staff who agreed to assist with the trainings leaving the facility or choosing not to participate before the project was completed. The vulnerability was lessened due to the number of subject matter experts who were willing to assist with the trainings. However, the threat was real and put the DNP project at risk for not being completed. Additionally, as business increased at the facility, it was questionable if the computer rooms would be available in the Education Building. This was a threat and vulnerability, putting the DNP project completion at risk.

**Marketing Plan**

A marketing plan was an essential component of this author’s DNP plan as it helped raise awareness of the trainings offered and helped mitigate the risk for not completing the DNP project. Marketing strategies included a flyer sent to the nurses’ email from the Nurse Manager. Also, the flyer was posted in key staff locations such as the nurses’ breakroom, on the unit’s performance improvement board, and at the nurses’ stations (Appendix F). An email drafted by
the project sponsor was sent by the Nurse Manager inviting staff to participate in the training opportunity (Appendix G). The Medical Unit Nurse Manager announced the opportunity at the monthly staff meetings and on the days the trainings were offered. Nurses who participated were asked after the training to encourage their colleagues to attend.

**Financial Plan**

The cost for the DNP project was nominal and did not exceed $150 dollars for the DNP project sponsor. Nurses who participated on the team and instructed the classes had their salary costs covered by the facility and this project aligned with their current roles and responsibilities. The training materials were part of the facility’s ongoing educational efforts and was covered by the Nursing Professional Services’ departmental budget. Gift bags, with the items previously mentioned, were given to the Nurse Manager by the project sponsor to disseminate to the registered nurses on the medical unit, regardless if they attended the training or not.

**Institutional Review Board**

After advisory committee approval of this DNP project proposal, approval from the University of Nevada, Las Vegas Office of Research Integrity – Human Subjects, Biomedical IRB was sought and the project was deemed Exempt. The Veterans Affairs Southern Nevada Healthcare System approved the DNP project proposal as a quality improvement (QI) project that was approved for implementation.

**Evaluation Plan**

The project purpose was creating an ongoing information technology training program for nurses using the EHR. By creating the ongoing training format, one goal of the project was
met. The identified survey tool helped assess if the two objectives were met. These were to increase the nurses’ efficiency for using the EHR when providing patient care and nurses reporting they could navigate better through the EHR and locate the desired information for providing clinical care. The survey tool provided feedback to the project sponsor and identified areas where the course content did not help the trainees navigate and use the EHR better. This information served as a basis for altering future trainings to better meet the needs of the registered nurses.
CHAPTER V

Summary of implementation and results

Precis of the phenomenon of interest and the problem and purpose of the project.

The purpose of this DNP project was to create an ongoing information technology training program focused on nurses’ use of the electronic health record. Technology has changed how nurses practice at the bedside. The use of technology has improved patient outcomes, improved efficiencies, and promoted patient safety. However, despite the pervasiveness and usefulness of technologies in the practice setting, there is a paucity of data on how Chief Nursing Officers (CNOs) ensure the full implementation and utilization of the technologies by the frontline staff nurse. The intent of the DNP project was to increase staff nurses’ ability to more effectively and efficiently navigate the electronic health record.

This DNP project organized and streamlined current resources into a sustainable, ongoing training program with an incorporated evaluation component. The ability to access the staff, materials, and resources lends itself to making it cost effective and reasonable to replicate in the future. A Nurse Informaticist provided face-to-face training and presented materials, guides, and lesson plans in module format. This author used the results from the survey tool to determine value of the training program and whether the participants self-reported an increase in confidence and ability to navigate the electronic health record (EHR).

Threats and barriers to the project

A threat to the project was nurses’ willingness to attend the training and complete the survey. This author anticipated this threat and built in processes to address these threats. Nurses were pre-registered for the training and this author secured the buy-in of the Nurse Manager to
schedule the nurses to allow them to participate in the training during regularly scheduled work hours.

Of the 25 nurses who attended the training, 22 accessed the online survey. However, not all questions were completed by all respondents. This author did not anticipate nurses would access the survey and partially complete it. It was unexpected that respondents may deviate from the provided directions. A possible future strategy to mitigate this threat would be to discuss with the nurses how the information will be used to help them perform their work more efficiently so they may have the necessary information to provide optimal patient care. Another strategy that may be helpful is to explicitly ask respondents to complete the entire survey prior to their beginning the survey. Lastly, letting the respondents know what the compensation will be for those who complete the survey may be beneficial.

**Monitoring of the project**

This training program was conducted as designed, without deviations from the plan submitted to the IRB, and as described above. Registered Nurses (RNs) on the medical unit participated in the offered training. The Nurse Manager scheduled times for the RNs to attend the training, ensuring there was adequate staffing to meet patient care needs. The Nurse Educator pre-registered the RN attendees in the facility’s educational tracking system, known as the Talent Management System. The Nurse Informaticist provided the training in a classroom setting where each RN had access to a computer during the training session. Course content included materials found in the *VASNHS CPRS Nursing Training User Guide & Lesson Plan*. Covered topics included clinical reminders, documentation of care, and accessing pertinent clinical information from VISTA interfaces (e.g., imaging, remote data, and medication lists). The training session ended with the RNs completing the CPRS Practice Session, *A Day in the*
Life of a Nurse. This activity provided the nurses an opportunity to practice what was covered during the training course and simulate realistic scenarios.

After attending the training session, each RN who signed the attendance roster received an email from this author via SurveyMonkey® requesting the RN complete an anonymous survey. The first screen was programmed to educate the RN about the details of the study. Respondents were informed the purpose of the study was to enhance nurses’ ability to effectively and efficiently navigate the patient electronic health record, access required patient information to make informed clinical decisions, and enrich the communication of care delivered. The information sheet outlined that participation was voluntary, participants could withdraw at any time, there were minimal risks involved by participating, and compensation was their current salary. All 6-East RNs received a thank you gift bag filled with candy, lip balm, and hand sanitizer. The gift bags were handed out after the training by the Nurse Manager on the unit.

Data Collection

Data was collected utilizing the commercial platform SurveyMonkey®. This author input the survey questions into the SurveyMonkey® template guide. However, due to the structural requirements of SurveyMonkey®, the author had to modify the way in which the original 12 questions were entered, resulting in 21 questions. This extended the length of the survey, which may have contributed to participants partial answering.

A total of three emails were sent via the SurveyMonkey® software asking participants to complete the survey, the first of which was sent after the nurses attended the training session. The impetus to send the reminder was based on survey response; the author noted low response and sent another reminder. This author realized the importance of developing a plan for prompting respondents to complete the survey.
Twenty-five people were sent the invitation, 24 accessed the survey, 21 responded to at least one question, 17 completed all questions, and three did not complete any of the questions. Of those who answered any question at all, all answered the first question. Collected data was stored on a password protected drive as required by the IRB. The survey responses were exported into IBM® SPSS® 24 Statistics for analysis.

Data analysis

The purpose of the training session was to provide hands-on education to the nurses to improve their ability to navigate the electronic health record. After the data was exported from the SurveyMonkey® software, this author analyzed the data using frequencies and descriptive statistics. Each completed question was included in the data analysis, even if the survey was not completed in its entirety. This author deemed each question within the survey to stand on its own merit and be informative.

Two survey questions asked demographic data about the nursing workforce. The first question asked how long they had worked in the field of nursing. All 21 nurses answered this question. More than half of the nurses worked more than 10 years (54.5%) in the field of nursing. Slightly more than a quarter (27.3%) worked in the field of nursing between seven and 10 years. The remainder (18.1%) of the nurses worked six years or less.

The second demographic question asked each nurse how long he or she had worked in the current position. Of the nurses who responded to this question, more than half (56.3%) have worked three years or less on the medical unit. This finding is expected given the facility opened approximately three years ago and had to hire new RNs. Thirteen percent of the nurses have worked between four and 10 years on the unit. Roughly 19 percent of the nurses have worked in their current position more than 10 years.
Greater than 70 percent of the respondents indicated that the presenter was very knowledgeable about the training provided. This response was expected as the presenter was a Nurse Informaticist and she created the course content. Additionally, the respondents thought the presentation delivery was “Very Good” or “Excellent.”

Two-thirds of the nurses marked “Agree” and one third marked “Strongly Agree” about satisfaction with the training. In terms of respondents having enhanced knowledge of navigating the EHR, more than half reported the training had benefited them and the remainder strongly agreed that the training had improved their knowledge level. Fifteen out of 16 would recommend the training to others.

The nurses reported that the structure of the course and course content were “About Right.” The nurses indicated that the training was organized and pertinent to their work. An overwhelming number of nurses reported they would be able to apply the training they received in their job. Irrespective of the initial self-reported confidence level, only one respondent indicated that the 90-minute training was too long. One nurse reported that the handouts did not enhance the training and one nurse disagreed with being able to utilize the training in his or her job.

A crosstab analysis showed mixed results comparing the number of years worked as a nurse with nurses reported confidence in navigating the electronic health record. This author anticipated nurses with little experience at the facility to be less confident in their use of the electronic health record. Two nurses who had been in their position less than one year reported being very confident. It is possible that these nurses may have had prior experience working with EHRs, such as during their student nurse clinical rotations, working as a VA Learning Opportunities Residency nurse, or completing the facility transition to practice program. Nurses
working on the medical unit between one and three years had varying responses with more than two thirds reporting feeling confident or very confident in navigating the EHR. Although this was an unexpected result, it was important to note that there were still nurses who did not feel proficient in using the EHR. As a result, this author identified a need for more targeted training and education for these nurses. Nurses with greater than seven years reported being “Confident” or “Very Confident” with their abilities to navigate the EHR (See Appendix H).

The next area assessed nurses’ confidence in completing clinical reminders. A crosstab analysis was run to evaluate nurses’ confidence in completing clinical reminders, with the widest variation of confidence for nurses who had been in their position between one and three years. This group had three respondents who reported feeling “Beginning Confident” or “Somewhat Confident” with this skill. More than two thirds of the nurses reported feeling “Confident” or “Very Confident” with completing the clinical reminders (See Appendix I).

Lastly, the survey assessed the confidence level for accessing information from VISTA interfaces. VISTA interfaces allowed nurses to view clinical care provided at other VA locations in the country where the patient may have presented for care. The results of this area mirrored the findings in the other two, with two thirds of the nurses with three years of experience or less indicated being “Confident” or “Very Confident” in their ability to access remote data (See Appendix J). As mentioned previously, these nurses may have had prior exposure to the EHR because of working at another VA, participating in VA sponsored training, or completing a transition-to-practice program. However, there were nurses with less than three years of experience in the position who expressed feeling “Beginning Confident” or “Somewhat Confident” with this skill.
Project Results

An overwhelming majority of the nurses who completed the survey reported they were “Satisfied” overall with the training. The remainder of the respondents “Strongly Agreed” that the training was satisfactory. In terms of respondents having enhanced knowledge of navigating the electronic health record, more than half reported the training had benefited them and the remainder strongly agreed that the training had improved their knowledge level. More than 95% of the nurses would recommend this training to others.

An unexpected result of the survey was nurses’ perception of nursing leadership’s support to their growth and development in information technologies. The Nurse Informaticist shared with this author that the nurses felt valued and supported by having dedicated time during their regular work shift to receive additional training. The nurses shared with the Nurse Informaticist information about what was working well within the EHR and things which were not working. The feedback provided by the nurses enabled nursing leadership to take corrective action and align the electronic health record and work processes. The dialogue exchange gave the frontline nurses a voice in aligning structures and processes, potentially positively impacting patient outcomes, and influencing future training.

Project Impact

After the training session, more than 80 percent of the nurses reported being “Confident” or “Very Confident” with navigating the EHR more efficiently, completing clinical reminder documentation, and accessing remote data through VISTA interfaces. Respondents were asked the following: 1) If you anticipate applying the information to your job, please explain how you expect to use it; 2) What was the most valuable part of the training; 3) Please provide any
suggestions for how the training could be improved.

Nurses expressed they would apply the training in their job daily. They found the handbook most helpful as a reference document and said the training would improve their documentation and help them find information in VISTA. The nurses shared that they now knew who to contact if they needed assistance or had any questions regarding the EHR. Lastly, some nurses shared they would like to have more training. The verbatim responses can be found in Appendix K.

The nurses’ responses indicated that the training accomplished what it was designed to deliver, training where nurses received education and hands-on learning using the electronic health record. The subject matter expert, the facility Nurse Informaticist, taught and reviewed the materials with the nurses. She provided real-time demonstration on how to access pertinent clinical information, showed the nurses shortcuts to retrieve information in the electronic health record, and provided question and answer sessions. The training included a scavenger hunt (ability to play games) and a simulated A Day in the Life of the Nurse activity (real life scenario).

As stated earlier, most of the nurses reported being “Confident” or “Very Confident” with navigating the EHR after attending the training session. However, there were nurses who reported only feeling “Beginning Confident” or “Somewhat Confident” after attending the training. Since the survey responses were blinded, it was not possible to identify which nurses may need more education and training. Future training sessions will be needed to meet the ongoing educational needs of the nurses.

What was not captured in the survey were the nurses’ comments that occurred during the training session between the Nurse Informaticist and the nurses. After the training sessions were completed, the Nurse Informaticist shared with this author how appreciative the nurses were to
have an opportunity to receive this training, which augmented the initial training received at new employee orientation. The Nurse Informaticist stated the nurses felt they had benefited from the training and how helpful it was to have dedicated time to focus on the materials presented. As noted above, the nurses shared with the Nurse Informaticist items which were not working in the electronic health record. Nursing leadership was unaware of some of the challenges the nurses were experiencing and the training forum provided an opportunity to share this information and take corrective actions.

**Project Results and Evidence in the Literature**

This DNP project highlighted the need to develop an ongoing information technology training program for nurses. Irrespective of the nurses’ length of time in practice and in their current position, there was a need identified for training on navigating the electronic health record. The project underscored the value of nursing leadership’s support of ongoing education. The provided training reinforced the nurses’ abilities to navigate the electronic record and locate pertinent information needed to provide patient care. The feedback shared by the nurses demonstrated their need and desire to be proficient with the electronic health record. The nurses’ comments supported Topkaya & Kaya’s (2015) assertion that adequate exposure to computers optimizes full usage of the capabilities of the technology. Additionally, ensuring nurses are comfortable with the technologies, in this case the electronic health record, aids in the full use of all the capabilities of the technology (Scott, 2015; Sockolow et al., 2014).

The training also provided an opportunity for nurses to communicate any knowledge gaps with the Nurse Informaticist. Quinn & Fitch (2014) posited that communication was the final phase along the data-information-knowledge continuum. Workers who communicated what they knew gained the most in efficiency and effectiveness as employees. The nurses who participated
in the trainings identified gaps in their knowledge of using the electronic health record during the training. They could ask the Nurse Informaticist specific questions during the training to close any knowledge deficits. The training forum provided targeted educational interventions for navigating the EHR more efficiently, completing clinical reminder documentation, and accessing remote data through VISTA interfaces. The training model supported Quinn & Fitch’s (2014) supposition that when workers recognized their knowledge gaps, they could engage in targeted trainings that, in turn, enhanced their proficiencies and efficiencies in working with technology.

Improving nurses’ knowledge and thereby possibly improving their efficiency and proficiency in navigating the electronic health record may positively impact the quality of care and safety of care provided by the nurses. Nurses may more quickly find pertinent clinical information to guide and direct care. Nurses may more quickly identify changes in patients’ conditions, allowing for changes in plans of care that better meet the patients’ needs at that time. Based on the feedback provided by the nurses, it is possible that this training provided them an opportunity to enhance their education and utilization of the full capabilities of the EHR. By having this information readily available, nurses could make informed decisions based on patients’ needs at that moment.

This author used Dr. Patricia Benner’s Novice to Expert Theory for constructing the training program. As noted in the earlier presentation of the theoretical underpinnings of this project, Benner’s theory posited that nurses’ skill development was based on a strong educational base and having numerous experiences in providing care (Benner, 1982; Benner, 1984). Benner theorized that nurses may pass through five different levels of proficiency: Novice, Advanced Beginner, Competent, Proficient, and Expert. As nurses gained more experience, their practice transformed from concrete, rules-based care, to seeing the clinical situation as a whole the
proficient nurse could discern the relevant parts. However, not all nurses progress through all phases of proficiency (Benner, 1984).

Benner stated that most nurses do not progress beyond the competent stage of practice (Benner, 1982). Competent nurses practiced for two to three years, could see clinical care delivered in terms of goals and plans for patients, and prioritized patients’ care needs by critically analyzing the situation and adjusting interventions. Healthcare organizations viewed competent nurses as ideal since they did well following standardized procedures and processes. Most trainings, education, and in-services in healthcare organizations had been tailored towards the competent nurse (Benner, 1982).

This author modeled the training program provided to the 6-East nurses after Benner’s skill acquisition model. Benner described the most beneficial structure for training competent nurses was through simulation exercises and games. These structures helped the nurse develop competencies in organization, planning, and delivering care to multiple, complex patients. The course content and structured training incorporated activities wherein nurses practiced navigating the electronic health record to find pertinent clinical information. Principles of simulation were used to provide hands-on experiences and helped cement what was taught.

Over two-thirds of the nurses who attended the training self-reported feeling “Confident” or “Very Confident” with navigating the electronic health record, completing the clinical reminders, and accessing remote data through VISTA interfaces. Within this group were nurses who were in the Novice and Advance Beginner phases of skill development. Interestingly, most of these nurses with less number of years of practice still felt comfortable navigating the electronic health record. This may be the result of familiarity with computers or the exposure of simulation where the nurse experienced real life scenarios where they were problem-solved,
made mistakes, but then corrected those mistakes.

This author also modeled the training on principles from Malcolm Shepherd Knowles’ Adult Learning Theory. Knowles’ theory posited that adults learned based on internal motivation and the desire to enhance their knowledge to successfully perform their work (Pappas, 2013). Adult learners concentrated their learnings on solving problems and gaining knowledge that was immediately applied in their lives. Optimal learning occurred for the nurses when trainings were self-paced, structured so people could ask questions, and they could receive immediate feedback (Pappas, 2013).

This training was structured so nurses asked questions and received feedback from the Nurse Informaticist. The nurses completed activities, such as the scavenger hunt, where they had to locate the information in the electronic health record. The learning exercise, *A Day in the Life of Nurse*, provided the nurses a scenario-based activity where they had to assimilate what they had reviewed to complete the assignment. From the survey results, nurses reported that the materials were relevant to their work and would be used daily.

As stated earlier, Benner and Knowles theories were complementary. They each provided a framework to support different aspects of the training and skill development. Benner provided the structure of how to tailor the training to meet the nurses’ ability to learn and apply principles. Knowles provided the principles of andragogy of just in time training and relevancy of the training to the nurses’ work.

**DNP Project Pertinence to Nursing Practice**

This DNP project adds to the knowledge of how to construct an ongoing training program for nurses to enhance their use of information technology in their practice. The nurses who participated in the study ranged from new nurses with less than three years’ experience to nurses
having worked in the nursing field for more than 10 years. There appears to be an opportunity to conduct targeted training to new nurses who have been in their current position less than three years. However, there were a couple of nurses with more than 10 years’ experience who reported feeling “Beginning Confident” or “Somewhat Confident” after attending the training session. Almost all the nurses who attended the training reported that the length of the training and the content of the training was about right. Only one nurse reported the training as being too long and that the content could have been delivered using a different format such as a PowerPoint presentation. In terms of challenges, the most difficult one was the logistical aspect of providing the training sessions during the nurses’ scheduled work hours and covering the patient care needs on the unit.

From this author’s perspective, the comments captured in the survey and reported to the Nurse Informaticist were important pieces of information informing nursing practice. The nurses appreciated the opportunity to learn more skills for navigating the EHR. They stated they would use the information learned in their daily work and felt it would enhance the care they provided to the patients. The training session not only provided structured formal learning, but also created a forum for the front-line staff to vocalize their needs to nursing leadership and provide feedback on their work environment. The Nurse Informaticist stated she would correct the items the nurses identified and would utilize the information when implementing future technologies. Additionally, the staff shared feeling supported by nursing leadership and, in this author’s opinion, felt empowered because they had a voice in defining their work environment. Studies have shown nurses who were empowered and supported by nursing leaders performed more effectively, were engaged in their work, and had positive work experiences (Clavelle, O’Grady, & Drenkard, 2013). Based on the feedback from the nurses, this DNP project informs nursing
leaders that providing continuing education may enhance nurses’ efficiency and effectiveness of using information technologies in their work.

**Potential for sustainability**

This DNP project has informed this author how to construct an ongoing electronic health record program that was hard-wired into the organization’s educational plan. The costs for providing the training were minimal and this author utilized existing resources within the organization. Survey results indicated most nurses were satisfied with the training experience and felt confident in their capabilities to navigate through the electronic health record. It was not within the scope of this DNP project to conduct pre-and post-training surveys due to time limitations. However, the post survey results and the nurses’ narrative feedback reinforce the nurses’ need and desire for ongoing training opportunities.

A couple of nurses offered feedback for future training sessions to be provided in a different format. Adding a test-out option would allow nurses who are proficient to demonstrate competency without having to attend a training session. This structure would help with the logistical challenges of scheduling nurses away from direct patient care work. The DNP project results also suggested targeting more educational sessions for new nurses and nurses who are new to the healthcare system. This subgroup reported feeling less confident with navigating the electronic health record. There was an opportunity to review the EHR educational sessions in nursing programs that orient and train new nurses, such as the transition-to-practice program or the nursing student programs like the VALOR program. Lastly, nursing leaders’ support was needed to ensure nurse super users on each unit who can serve as an immediate resource.

Future scholarly activities included continued use of this ongoing educational program within the organization. The survey results, narrative responses, and direct feedback to the
Nurse Informaticist who conducted the trainings suggested the trainings were helpful and accomplished the intended goals of the project: creation of an ongoing training format, self-report of the nurses feeling more confident in using the electronic health record, and nurses’ confidence in navigating through the electronic health record. The survey tool provided feedback to this author about the training session (content, length of course time, and quality of handout materials) which will be incorporated into future training sessions offered at the facility.

This DNP project demonstrated a need for continued training in information technologies and for implementing the training throughout the organization. There were multiple forums where this DNP project results may be disseminated. As this author worked in a federally funded integrated healthcare system, the results may be shared with other nurse leaders throughout the country. The organization utilized different modalities to share information such as webinar presentations, teleconferences, SharePoint, poster sessions at conferences, and in written format. As there were new hospitals opening in the system and new nurses will be needed, the ongoing training program and tools may be helpful as the nursing leadership trains and encultures the new nurses to the organization.

This project can be utilized by other Veterans Health Administration (VHA) facilities across the country to help aid new and existing nurses with their abilities to navigate the electronic health record. All nurses who responded to the survey, beginners to proficient nurses, felt more confident with their skills in navigating the EHR after attending the training in completing documentation and clinical reminders, and accessing remote data in the VISTA system. The handouts used for the training can be easily modified and disseminated throughout the VHA. There are opportunities to share the information at the national Nurse Executive poster board session, at the monthly national Nurse Executive conference call, and at the annual
Nurses Organization of Veterans Affairs (NOVA) conference. The NOVA conference is attended by VA nurse leaders and VA staff nurses. VA staff nurses would have an opportunity to learn about this training program, and possibly request the training to be offered at their VA hospital. Another resource is posting the project on the VHA diffusion hub where the information can be seen by all VA personnel.

This author felt this DNP project contributed to improving nursing practice and knowledge to enhance the quality and safety of care provided. Although the survey sample was small and the survey results were from one medical unit, the overwhelming positive responses suggest the ongoing training program was beneficial. The project will be disseminated to all nursing units in the hospital and to all outpatient settings as well. This author intends to continue to assess nurse learners’ perspectives for ongoing training programs to maintain nurses’ currency in informatics.

The project demonstrates how this author translated the available research and led the creation of a training program focused on nurses maintaining their knowledge and skills with information technologies. This author incorporated research from enterprise architecture (EA) and lifelong learning into the training program. EA is an implementation framework for educating, training, and developing competencies in complex environments (Tambouris et al., 2012). EA is best achieved through having a dedicated trainer with iterative trainings offered. The Nurse Informaticist was dedicated to the project, was a subject matter expert, and this training was the second training the nurses had since nursing orientation. This author created continued learning that Davis et al (2014) stated was a key finding in nurses’ expectations of translating new knowledge and applying it in their lives. This DNP project adds to the limited published literature on how to guide Chief Nurse Officers to ensure bedside nurses stay current
with new technologies. The project organized existing resources and incorporated research on ongoing education, skills-building, and presentation assessment, to create a continuing information technology program focused on nurses’ use of the electronic health record. The DNP project evaluation of the survey results suggested the designed program structure used by this DNP author may benefit nurses in their work of caring for patients.
APPENDIX A: MODIFIED NWCPHP POST-TRAINING EVALUATION SURVEY TOOL

1. Maintaining Currency in Informatics

Please see the below information regarding the survey. The survey is anonymous.

UNLV

1 of 1
977617-1, Exempted: 12/08/2016
EXEMPT RESEARCH STUDY
INFORMATION SHEET
Department of Nursing

TITLE OF STUDY: Maintaining Nurses' Currency in Informations
INVESTIGATOR(S) AND CONTACT PHONE NUMBER: Carolyn E. Sabo, RN, EdD,
Professor, 702-895-3342 and Jennifer A. Strawn, MSN, RN, NE-BC, Doctoral Student, 702-901-1335

The purpose of this study is to enhance staff nurses' ability to effectively and efficiently navigate through the patient electronic health record (EHR) and access required patient information to make informed clinical decisions and enrich the communication of care delivered. You are being asked to participate in the study because you meet the following criteria: you are assigned to work on unit 6East
at the Veterans Administration Southern Nevada Healthcare System (VASNHS), you read and speak English, and you are at least 18 years of age.
If you volunteer to participate in this study, you will be asked to do the following: attend a training session held during your normally scheduled work hours and complete a survey on your perception of the usefulness and helpfulness of the training method provided.
1. How long have you worked in the field of nursing?
Less than 1 year
1-3 years
4-6 years
7-10 years
More than 10 years

2. How many years have you been in your current position?
Less than 1 year
1-3 years
4-6 years
7-10 years
More than 10 years

3. Which one of the following categories best describes your primary role?
RN Staff Nurse

4. Please rate the following aspects of the CPRS Training: Presenter's knowledge of the subject matter
   Poor
   Fair
   Good
   Very Good
   Excellent

5. Please rate the following aspects of the CPRS Training: Presenter's presentation delivery
   Poor
   Fair
   Good
   Very Good
   Excellent

6. As a result of attending CPRS Training, please indicate your current confidence level for the following: I can navigate through CPRS more efficiently
   Not confident
   Beginning confident
   Somewhat confident
   Confident
   Very Confident

7. As a result of attending CPRS training, please indicate your current confidence level for the following: I can complete clinical reminders documentation
Not confident
Beginning confident
Somewhat confident
Confident
Very confident

8. As a result of attending CPRS training, please indicate your current confidence level for the following: Complete clinical reminders documentation
Not confident
Beginning confident
Somewhat confident
Confident
Very confident

9. As a result of attending CPRS training, please indicate your current confidence level for the following: I can access pertinent clinical information from VISTA interfaces (e.g. imaging, remote data, medication lists)
Not confident
Beginning confident
Somewhat confident
Confident
Very confident

10. Please rate your level of agreement with the following statement: I was satisfied with the overall training.
Strong disagree
Disagree
Agree
Strongly agree

11. Please rate your level of agreement with the following statement: The training enhanced my knowledge on the topic.

Strong disagree
Disagree
Agree
Strongly agree

12. Please rate your level of agreement with the following statement: I would recommend this training to others.

Strong disagree
Disagree
Agree
Strongly agree

13. Please rate your level of agreement with the following statement: The content was well organized.

Strong disagree
Disagree
Agree
Strongly agree

14. Please rate your level of agreement with the following statement: The handouts enhanced the training.
15. Please rate your level of agreement with the following statement: I will be able to apply the training information to my job.

Strong disagree
Disagree
Agree
Strongly agree

16. If you anticipate applying the information to your job, please explain how you expect to use it.

17. The length of the training was:

Too short
About right
Too long

18. The quantity of information presented in the training was:

Not enough
About right
Too much

19. The level of difficulty of the training for you personally was:

Too easy
About right
Too difficult

20. What was the most valuable part of the training?

21. Please provide any suggestions for how the training could be improved.
From: Devaull-Graham, Linda R.

Sent: Tuesday, June 28, 2016 3:12 PM

To: Strawn, Jennifer A.

Subject: RE: CPRS Guidebook and CPRS Tools

Yes, certainly you have my approval. I’m honored to know you think my tools are worthy of your DNP project and look forward to helping anyway I can.

Linda R. DeVaull-Graham, MBA, BSBA, BSN, RN

Nursing Informatics Coordinator

VA Southern Nevada Healthcare System
# VASNHS CPRS Nurse Training User Guide and Lesson Plan

## New Hire Orientation

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<td>• Patient Selection: Messages and Active Flags (Page 10)</td>
</tr>
<tr>
<td></td>
<td>• How to Use Menu Bar (Page 11 – 14)</td>
</tr>
<tr>
<td></td>
<td>• How to Use Remote Data (Page 15)</td>
</tr>
<tr>
<td></td>
<td>• Tab by Tab Content and Use (Page 16 – 26) includes Outpatient RNs &amp; LPNs submit Orders/Consults – See separate handout “Standing Orders / Consults Quick Guide” and ONSOP #118-11-03 for Nurses on page 20</td>
</tr>
<tr>
<td>Section # 3</td>
<td>Tab by Tab Documentation</td>
</tr>
<tr>
<td></td>
<td>• How to Process Allergies – (Page 27 - 28)</td>
</tr>
<tr>
<td></td>
<td>• Setting Up Vital Sign Input Template – (Page 29)</td>
</tr>
<tr>
<td></td>
<td>• How to Chart Vital Signs (including Actual Weights) – (Page 29 - 31)</td>
</tr>
<tr>
<td></td>
<td>• How to Fix Incorrect Vitals and to Create a Graph of Vital Signs– (Page 32 - 33)</td>
</tr>
<tr>
<td></td>
<td>• How to Identify, Document and Sign Progress Notes – (Page 34 – 35)</td>
</tr>
<tr>
<td></td>
<td>• Add Additional Signers to Progress Notes – (Page 36)</td>
</tr>
<tr>
<td></td>
<td>• Add Addendum to Signed Progress Note – (Page 36)</td>
</tr>
<tr>
<td></td>
<td>• How to Process Signed Progress Notes with Error(s) – (Page 37 - 38)</td>
</tr>
<tr>
<td></td>
<td>• Customize a List of Progress Note Titles as Default - RN/LPN Only (Page 39)</td>
</tr>
<tr>
<td></td>
<td>• How to Chart a Late Entry Note – (Page 40)</td>
</tr>
<tr>
<td></td>
<td>• How to Add &amp; View a Subject Line in Progress Notes (Page 41 – 42)</td>
</tr>
<tr>
<td></td>
<td>• How to Process / Document Clinical Reminders – RN &amp; LPN Only (Page 43 – 45)</td>
</tr>
<tr>
<td></td>
<td>• Find desired Note(s), i.e. by Author, within Date Range, specific text, etc.) (Page 46)</td>
</tr>
<tr>
<td></td>
<td>• How to Chart VANOD Initial Skin Assessment and Skin Reassessment (Pages 47 &amp; 48)</td>
</tr>
<tr>
<td></td>
<td>• How to Chart Belongings in IMED Consent (Page 49)</td>
</tr>
<tr>
<td>Section # 4</td>
<td>Use Vista Imaging to View Graphics, etc. (including Advance Directives) ((Page 50 - 51)</td>
</tr>
<tr>
<td>Section # 5</td>
<td>Outpatient Nurse - Documentation on Encounters (Page 52 – 57)</td>
</tr>
<tr>
<td>Section # 6</td>
<td>How to Obtain Patient Education Materials from Krames, Medline Plus &amp; Micromedex (Page 58)</td>
</tr>
<tr>
<td>Section # 7</td>
<td>CPRS HELP Resources (Page 59 - 60)</td>
</tr>
<tr>
<td>Section # 8</td>
<td>VistaWEB – Results View, (CPRS Backup) Page 61</td>
</tr>
<tr>
<td>Section # 9</td>
<td>CPRS Practice Session – Day in the Life of a Nurse (Page 62)</td>
</tr>
<tr>
<td>Section # 10</td>
<td>Proper Nursing Documentation – (Page 63 – 65)</td>
</tr>
</tbody>
</table>

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### Section #: 1 - Logins / Signature Code

**Key Learning Points are:**

1. *How to Log onto VA Computers* (Page 3)
2. *CPRS Signature Code* (Page 3)
3. *How to Log into CPRS* (Page 4)

<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All</strong> 5 Unique Login Codes</td>
<td>Required to log into the VA computer.</td>
</tr>
<tr>
<td>• Defined in General Orientation.</td>
<td>1. <strong>USERNAME</strong> - The Username is predetermined and NEVER changes. The Username is made up of three things - the administration you work for (VHA), the site where you word (Las Vegas) and the first five letters of your last name and the first initial of your first name. Example: Name is Linda DeVaul. Username is: <strong>VHALASdevaul</strong></td>
</tr>
</tbody>
</table>
| • Required to use VA Computers, CPRS, Vista and VistaWeb computer systems. | 2. **PASSWORD** - The Password is chosen by you and must be changed every 90 days. For that reason, for at least the first time, I would suggest keeping it as simple as possible. This password has to be what is called a **STRONG** password. A strong password is:  
  a. Eight characters long  
  b. It is case sensitive  
  c. Must contain at least one number  
  d. Must contain at least one symbol  
  e. Must contain at least one letter  
  Example: **0123aa//** |
| **Security** | Required to log into CPRS, VISTA and VistaWeb. |
| **DO NOT ALLOW ANYONE ELSE TO KNOW OR USE YOUR CODES - EVER.** | 3. **ACCESS CODE** - It is predetermined and NEVER changes. |
| To do so is a security violation and opens you up to explanations you do not want to make. If you think someone has access to your codes, report to the Helpdesk & ISO ASAP. | 4. **VERIFY CODE** - It is chosen by you and must be changed every 90 days. Can be same as computer password, **(0123aa//)** |
| | Required signature code to sign your name in CPRS. |
| 5. **SIGNATURE CODE** - This is your electronic signature in CPRS. It is chosen by you and it NEVER changes. The only rule for this code is that it must contain 6 characters. Can be same as computer password, (i.e. - **0123aa//**). |

Signature Code is required in CPRS for Progress Notes, Discharge Summaries, and Orders require an electronic signature code.
## Log (Sign) Into CPRS

1. Double Click your CPRS icon
2. Enter in your Access Code
3. Hit the TAB Key
4. Enter in your Verify Code
5. Click on OK or hit Enter Key.

## Security - Lock or Log Off Computer

Employees are reminded to lock or log off computers when not actually working on them.

## References:

**VHA Handbook 6500 Appendix G - Dept of Veterans Affairs National Rules of Behavior**

I will ensure that I log off or lock any computer or console before walking away and will not allow another user to access that computer or console while I am logged on to it.

**VHA Handbook 1907.01, Page 11, 5b(3):**
Every employee with access to patient records in any medium is responsible for the proper handling of the patient records. Each employee is accountable for safeguarding patient confidentiality and privacy, and failure to do so may result in disciplinary or other adverse action up to, and including, termination.

**VHA Handbook 1907.01, Page 12, 5d(4):**
Precautions must be taken by staff to ensure that patient records on computer screens cannot be seen by individuals who do not have a legitimate need-to-know.

**VHA Handbook 1605.13(d), Page 5, 3d(1):**
VHA, including each health care facility, must ensure that appropriate administrative, technical, and physical safeguards are established to ensure the security and confidentiality of individually-identifiable information and records, including protected health information (PHI) and records, and to protect against any anticipated threats or hazards to their security or integrity which would result in substantial harm, embarrassment, inconvenience, or unfairness to any individual on whom information is maintained.
VASNHS CPRS Nurse Training User Guide and Lesson Plan

Section #: 2 - CPRS General Overview

Access/ Navigate Pt’s Chart (Select Pt., Notifications, Flags, Menu Bar and Tabs)

Key Learning Points are:
1. What is CPRS (Page 5)
2. What are Markers & Notifications (Process / Forward Notification (Page 5 – 6)
3. Create Custom Default Patient List from Combination Clinics (Page 7 – 8)
4. How to Find / Open a Patient’s Chart (Page 9)
5. Patient Selection: Messages and Active Flags (Page 10)
6. How to Use Menu Bar (Page 11 – 14)
7. How to Use Remote Data (Page 15)
8. Tab by Tab Content and Use (Page 16 – 26) includes Outpatient Nurse Standing Orders.

<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Computerized Patient Record System - Enables Clinicians to:</td>
</tr>
<tr>
<td>What is CPRS?</td>
<td>• Enter, review, update &amp; analyze data connected VA pt.,</td>
</tr>
<tr>
<td>For VA Patients</td>
<td>• Place / View - Orders, (i.e. Lab Test, Medications, Diets,</td>
</tr>
<tr>
<td></td>
<td>• Radiology Tests, Procedures)</td>
</tr>
<tr>
<td></td>
<td>• Record / View – Allergies, Adverse Action to medications</td>
</tr>
<tr>
<td></td>
<td>• Request / Schedule / Track Consults</td>
</tr>
<tr>
<td></td>
<td>• Document – Progress Notes, diagnoses, treatment per encounter</td>
</tr>
<tr>
<td></td>
<td>and discharge summary</td>
</tr>
<tr>
<td></td>
<td>• Supports clinical decision-making</td>
</tr>
<tr>
<td></td>
<td>GUI = Graphical User Interface for VISTA = Veterans Health</td>
</tr>
<tr>
<td></td>
<td>Information System &amp; Technology Architecture</td>
</tr>
</tbody>
</table>

Combat Veteran Markers - Located on:
1. Patient selection screen
2. Consult tab,
3. Notifications,
4. Order details screen,
5. SF-513,

Note: The Combat Veteran marker does not take into account the type of military discharge. Whether the discharge is honorable, dishonorable, etc., the CV marker is the same.

Patient Selection Screen:
When the user selects a pt. with Combat Veteran status, CPRS indicates that patient is a combat veteran by displaying the CV and a date below the normal demographic information on the Pt. Selection screen and above the Save Patient List Settings button. The marker is shown by a red box.
# VASNHS CPRS Nurse Training User Guide and Lesson Plan

<table>
<thead>
<tr>
<th>All</th>
<th><strong>Notifications</strong> on Patient Selection Screen.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Notification Messages, on your patients give info to prompt action on a clinical event. Some require follow-up action.</td>
</tr>
<tr>
<td></td>
<td>View / sort / process / forward notifications for all of your patients.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nurse</th>
<th><strong>Process Notifications</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sort by column header.</td>
</tr>
<tr>
<td></td>
<td>1) Select to highlight notification for processing.</td>
</tr>
<tr>
<td></td>
<td>2) Select Process button, or Right click / select Process to review content.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nurse</th>
<th><strong>Note appears automatically for review.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After reviewed - Right click to Sign Note Now.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nurse</th>
<th><strong>Forward Notification</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1) Select to highlight notification to process.</td>
</tr>
<tr>
<td></td>
<td>2) Click Forward to send to another for review.</td>
</tr>
<tr>
<td></td>
<td>3) Select the recipients’ names for the notification.</td>
</tr>
<tr>
<td></td>
<td>4) Click the name to add it to the list of recipients.</td>
</tr>
<tr>
<td></td>
<td>5) Type comment as needed, Click OK.</td>
</tr>
<tr>
<td></td>
<td>Recipient will receive notification for review.</td>
</tr>
</tbody>
</table>

Clinical Events, i.e. Notes designating you as an Additional Signer, Unsigned Notes; Change in orders triggers notification. Process all per shift (Do not leave Unsigned). Created when users do not sign notes or you were added as an additional signer on a note.
<table>
<thead>
<tr>
<th>Procedure</th>
<th>How to Create Custom Default Patient List from Combination Clinics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Tools from the Menu bar.</td>
<td><img src="image1" alt="Screenshot 1" /></td>
</tr>
<tr>
<td>1. Click Options</td>
<td><img src="image2" alt="Screenshot 2" /></td>
</tr>
<tr>
<td>2. Select List/Teams Tab</td>
<td><img src="image3" alt="Screenshot 3" /></td>
</tr>
<tr>
<td>3. Click Source Combination</td>
<td><img src="image4" alt="Screenshot 4" /></td>
</tr>
<tr>
<td>4. Select Clinic to</td>
<td><img src="image5" alt="Screenshot 5" /></td>
</tr>
<tr>
<td>5. Enter Desired Clinic Name in blank box.</td>
<td><img src="image6" alt="Screenshot 6" /></td>
</tr>
<tr>
<td>6. Select to highlight desired clinic.</td>
<td><img src="image7" alt="Screenshot 7" /></td>
</tr>
<tr>
<td>7. Select Add box to move desired clinic name to Combination list.</td>
<td><img src="image8" alt="Screenshot 8" /></td>
</tr>
<tr>
<td>8. Select OK</td>
<td><img src="image9" alt="Screenshot 9" /></td>
</tr>
</tbody>
</table>
9. Select Patient Selection Default

10. Select Combination
11. Select Appointment Date to view patients’ in order of their clinic appointment.
12. Select Today to setup list to view patients’ for current days only. Patients from prior day will automatically be removed from the list and only patients scheduled for appointment for current day will be included in the list.
13. Select OK.

14. Select O.K.

Your Patient list will now default to all patients checked in TODAY for clinic appointments for the clinics included in your combination list.
Proceed to find/open patient’s chart from the list.
Find and Open Patient's chart in CPRS.

1. Choose button for Patient List type.
   * Provider
   * Team/Patient
   * Specialties
   * Clinic (location)
   * Ward (location)
   Can save list as default by clicking “Save Patient List Settings”

2. Choose desired patient from list or enter patient’s:
   a. First initial of the patient’s last name and the last four digits of their social security number
      – i.e.: Holl_Don
      123-45-6789
      H6789 or
   b. SSN: 123-45-6789 or
   c. Last name, first name - without a space!
      Example:
      Holl_Don

Notice to the right the patients NAME, SSN, DOB, SEX, and LOCATION appears.

3. Click OK.

4. Once you click on OK, you will be taken to the Cover Sheet in CPRS.

Patient List – Identify group type to select from. Quickly locate patient without going through all patients in a list and used for teams of clinicians who can sign or co-sign for each other.

**MUST HAVE Visit Location selected to update patient’s record.**

For Clinic List Type - Scroll to select desired Clinic. To refine search, use "List Appointment for" to make selection from menu. Click on desired patient’s name from list. Patient must have an appointment to appear on Clinic List. If patient name not on list, ask administrative assistant to make the veteran an appointment.

**MUST select clinic for outpatient to trigger Encounters**

Select patient on Ward List. Inpatient's bed trigger Reminders.

Select desired patient from All List.

Location not required for results view only since no concern in Reminders or Encounters.
Patient Selection
Messages & Active Flags
- Provide info / guidance.

Select / Highlight the desired message to view content - describe information and are linked to progress notes.

Only person who puts in flag that are triggered by progress note. Not RN, LPN, NA. Periodically reviewed to determine if they should be kept.

Clerk completes means test via VistA.

Lactation / Pregnancy Flag
Nurse Practitioners can enter. Not Nurse.

Fugitive Felon Program – FFP –

*** WARNING - FFP FLAG ACTIVE ***

PLEASE NOTIFY YOUR SUPERVISOR - VA is required to withhold benefits, including healthcare, from Veterans who are fugitive felons. If you see this flag on a patient’s record, he/she is not eligible for VA healthcare. Contact the VA Police.

Behavioral Flag = Category 1 – For employees safety - patient has history of disruptive behavior. Entered by Medical Records Only, (NOT NURSE).

Research Flag = Category 2 = Patient data used / enrolled in local research.

Patient with Similar Name/SSN

Deceased Patient = DO not enter data. Alert MAS and HIM.

Sensitive Pt. Record = Employee, veteran asked record be kept private for life of record ‘forever’. Triggers ISO to keep track of who accessed record.

Mean Test Required – Determine if patient can afford certain care. If no, certain action done based on criteria. Clerk responsibility to process.

Legacy Data Available = access to another system for data retrieval.
### VASNHS CPRS Nurse Training User Guide and Lesson Plan

<table>
<thead>
<tr>
<th>All</th>
<th>How to Use Menu Bar</th>
<th>Windows Driven - Will Change (Action, view, change, sign, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Two Menu Bars</td>
<td><strong>File</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>CPRS Menu Bar</strong> - Will Not Change - specific to patient. (Patient focused - demographics, PCP, Location, Allergies, etc.)</td>
</tr>
<tr>
<td>All</td>
<td>Windows - Menu Bar Commands</td>
<td>Review / Sign Changes (Use Electronic Signature Code)</td>
</tr>
<tr>
<td></td>
<td>File Menu</td>
<td>Allows view of orders placed that require an electronic signature. Select the orders you want to sign at this time, and enter your electronic signature (if you are authorized to sign them).</td>
</tr>
<tr>
<td></td>
<td>• Select New Patient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Refresh Pt. Info</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Break Patient Link</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Update Provider</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(display a dialog to allows change to clinician or location of an encounter).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Review / Sign Changes</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>Window - Edit Menu</td>
<td>The Edit menu contains:</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Undo</strong> -- It will undo whatever Windows will let you undo, such as text that you have typed and so on.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Cut</strong> -- You can use cut to remove text you have selected, and place it on the clipboard until you are ready to paste it.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Copy</strong> -- You can select text and use copy to place the identical text on the clipboard until you are ready to paste it.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Paste</strong> -- You can place cut or copied text in a new location by placing your cursor in the new location and choosing Paste.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Preferences</strong> -- Change the font size.</td>
</tr>
<tr>
<td>All</td>
<td>Window - View Menu</td>
<td>View Menu - Changes depending on tab you are on. Can move between the different tabs with the option to change your view of the information on a tab or to obtain more information. Example - on the Problems tab, View gives options to view different categories of problems, (i.e. only active problems or use filters to define locations, a provider and if you want inpatient, outpatient or both.</td>
</tr>
<tr>
<td></td>
<td>Includes option to set default and custom view</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>Window - Action Menu</td>
<td>Action Menu - Changes depending on tab you are on. It enables you to move between the different tabs and to change actions based on the information on a tab or obtain more information. For example, when you are on the Medication tab, the Action menu allow you to change, discontinue, cancel, hold, renew, copy and refill. While on the Notes Tab you can Make Progress Note, Make Addendum, Add to Signature List, Save without Signature, Edit and/or Delete Progress Note, Sign Note and Identify Additional Signers.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th><strong>VASNHS CPRS Nurse Training User Guide and Lesson Plan</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A 1 1</strong> Window - Options Menu <strong>Options Menu – Only Available on Order, Notes, Consults and Surgery Tabs</strong> - Changes depending on which tab you are on. It enables you to move between the different tabs and to change actions based on the information on a tab or obtain more information. For example, when you are on the Orders Tab, the Option Menu allows you to Save as Quick Order and to Edit Common List. Whereas on the other Tabs you can Edit Templates or Create New Templates.</td>
</tr>
<tr>
<td><strong>A 1 1</strong> Window - Tools Menu – you can customize <strong>Tools menu</strong> - It can contain menu items to take you to other parts of VISTA, to local policies, to word-processing programs, to the Web, and to other areas chosen by the site. Talk to your Clinical Applications Coordinator if you wish to have something added.</td>
</tr>
<tr>
<td><strong>A 1 1</strong> Window - Help Menu <strong>includes:</strong> Contents and About CPRS Click on Help on Menu bar via top Window, and choose Contents. Pick one item listed. Go to an index or enter a subject to search for.</td>
</tr>
<tr>
<td><strong>A 1 1</strong> Cover Sheet = First Tab shows an overview of patient’s condition &amp; hx. Each Window contains unique info. Click to display</td>
</tr>
<tr>
<td>- Patient Inquiry Demographics</td>
</tr>
<tr>
<td>- Visit</td>
</tr>
<tr>
<td>- Primary Care Team (Attending)</td>
</tr>
<tr>
<td>- Patient Insurance</td>
</tr>
<tr>
<td>- Flags</td>
</tr>
<tr>
<td>- Remote Data</td>
</tr>
<tr>
<td>- Reminders</td>
</tr>
<tr>
<td>- Postings CWAD</td>
</tr>
<tr>
<td><strong>A 1 1</strong> CPRS Patient Focus Menu - Patient Inquiry Demographics <strong>AADFHU.DOXSEN</strong></td>
</tr>
<tr>
<td>301-03-0915P  Mar 09/1915 (68) Name, SSN, DOB, Age Separate Windows contain unique info. Click to display content.</td>
</tr>
</tbody>
</table>

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### CPRS Patient Focus Menu

#### Visit – Provider & Location for current activity

- Same as File; Update Provider/Location

- Provider Name should be completed and tied to inpatient location.

- Should tie to appointment for Outpatient visit as processed by Clerical for patient check-ins prior to patient seeing clinicians for outpatient clinic visit.

- Encounter data must be complete in order to:
  1. Enter orders;
  2. Write progress notes
  3. Perform other activities.
  4. Complete Consults
  5. Write Discharge Summary
  6. Other activities

- Does not count for workload credit which requires encounter form data.

When entering orders, progress notes, vital signs, and problems, etc. you may be required to enter location and/or provider information.

---

### CPRS Patient Focus Menu

- Primary Care Team = Contact info for provider/attending, etc.

If you are a provider (Physician, NP, PA) your name automatically is assigned. You must click this informational box to change it if you want to have another provider identified as the person you are entering an order for.

Locations are automatically placed if the patient is an inpatient or has an appointment close to the time you are taking the action. If the location is not the correct one or is blank you can enter the correct information. If not, when you take an action such as entering a new progress note or vital information you will be prompted to enter encounter information.

For example after selecting “New Note” you will see a window appear asking for the location. The choices are Clinic Appointments, Admissions, or New Visit.

1. If you are already in the Provider / Encounter dialog skip to step 2. Otherwise, from any chart tab, click the Provider / Encounter box located in the top center portion of the dialog.

2. Locate and click the provider for this encounter in the list box. (Note providers with similar first and last names.)

3. Click the tab of the correct encounter category for this visit: Clinic Appointments (Hospital Admissions, New Visit)

4. Select a location for the visit from the choices in the list box.

5. If you selected a Clinic Appointment or Hospital Admission, skip to step #7. If you are creating a New Visit, enter the date and time of the visit (the default is NOW).

6. Click visit category from available options (i.e. Historical) and click OK.

7. When you have the correct provider and location, click OK.
CPRS Patient Focus Menu
- Flags
  Click icon to display
  Patient Record Flags = active information about patient.

Pt. Record Flag = Active
flags = red
Separate Windows contain
unique info.

Click to display content.
(Two window locations)

When assigning a flag, authorized users must write a progress note that
clinically justifies each flag assignment action. PRFs tied to patient look up.

CPRS Patient Focus Menu
- Available Reminders
  (Inpatient & Outpatient)

? = Reminders due, but not
evaluated.

Aqua Alarm Clock =
Applicable, not due

Red Alarm Clock = Due

Wall Clock = N/A (includes
never applicable items)

Right click clock to view details for Due Date and Last Occurrence

CPRS Patient Focus Menu
- Postings – contains
critical patient data for
clinicians. Display
triggered by
authorized clinicians’
documentation in
CPRS. CWAD
- Crisis, (i.e. suicide)
- Warnings, (i.e. Drug
  Seeking Behavior)
- Allergies
- Directives = Advance
  Directives
How to Use Remote Data

Classic

VistaWeb

Remote Data

Color = BLUE when patient has computer records at another VA location. Remote data can only display if pt. is registered at VASNHS.

(VISTAwed does NOT include OIS, Pre/Post Deployment Records).

How to Use Remote Data

1. Go to the Reports tab and Select desired report from Clinical Reports or Health Summary.
2. Click on the Blue Remote Data button.
3. Select ALL Available Sites or desired site(s) for which you wish to see information.
4. Click the + Sign next to the item desired to view.

Example: Click + Progress Notes to expand the menu choices.

Example of Progress Notes displayed via Remote Data

NOTE: If you know a patient was seen at a certain site but that site is not displayed, notify either HIM & CAC. Try using VISTA menu option NETWORK HEALTH EXCHANGE to request information from that site.
<table>
<thead>
<tr>
<th>TAB by TAB</th>
<th>Content &amp; Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cover Sheet</strong></td>
<td>After selecting a patient &amp; clicking OK, Cover Sheet Tab opens.</td>
</tr>
</tbody>
</table>

**Active Problems**
Problems tab and the Active Problems on the cover sheet are for **Outpatients ONLY**, (Not Inpatient Problems).
* asterisks = acute
$ dollar signs = unverified
(abbreviations in parentheses) = Service Connected conditions
# pound symbol = Has inactive codes, can update on problems tab.

**Allergies**
All medications including topical can pose a threat due to allergic reactions or adverse events and should be monitored closely and adverse events documented appropriately.

**RN / LPN - Document Allergy in CPRS via Orders Tab.**
Ref. MCM 119-06 "Adverse Drug Reactions"
### VASNHS CPRS Nurse Training User Guide and Lesson Plan

#### Active Medications

<table>
<thead>
<tr>
<th>Medication</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capsaicin</td>
<td>Active</td>
</tr>
<tr>
<td>Capsaicin 2.5%</td>
<td>Active</td>
</tr>
<tr>
<td>Tadalafil</td>
<td>Active</td>
</tr>
<tr>
<td>Captopril</td>
<td>Active</td>
</tr>
<tr>
<td>Carvedilol</td>
<td>Active</td>
</tr>
<tr>
<td>Enalapril</td>
<td>Active</td>
</tr>
<tr>
<td>Lisinopril</td>
<td>Active</td>
</tr>
<tr>
<td>Metoprolol</td>
<td>Active</td>
</tr>
<tr>
<td>Propranolol</td>
<td>Active</td>
</tr>
<tr>
<td>Nifedipine</td>
<td>Active</td>
</tr>
<tr>
<td>Nitroglycerin</td>
<td>Active</td>
</tr>
<tr>
<td>Amlodipine</td>
<td>Active</td>
</tr>
<tr>
<td>Hydrochlorothiazide</td>
<td>Active</td>
</tr>
<tr>
<td>Furosemide</td>
<td>Active</td>
</tr>
<tr>
<td>Spironolactone</td>
<td>Active</td>
</tr>
<tr>
<td>Metformin</td>
<td>Active</td>
</tr>
<tr>
<td>Rosiglitazone</td>
<td>Active</td>
</tr>
<tr>
<td>Pioglitazone</td>
<td>Active</td>
</tr>
<tr>
<td>Oral Contraceptives</td>
<td>Active</td>
</tr>
<tr>
<td>Oral Hypoglycemic Agents</td>
<td>Active</td>
</tr>
<tr>
<td>Antihypertensives</td>
<td>Active</td>
</tr>
<tr>
<td>Antidiabetic Agents</td>
<td>Active</td>
</tr>
<tr>
<td>Anticoagulants</td>
<td>Active</td>
</tr>
<tr>
<td>Antiplatelet Agents</td>
<td>Active</td>
</tr>
<tr>
<td>Central Nervous System Agents</td>
<td>Active</td>
</tr>
<tr>
<td>Anticonvulsants</td>
<td>Active</td>
</tr>
<tr>
<td>Sedatives</td>
<td>Active</td>
</tr>
<tr>
<td>Muscle Relaxants</td>
<td>Active</td>
</tr>
<tr>
<td>Antiemetics</td>
<td>Active</td>
</tr>
<tr>
<td>Antihistamines</td>
<td>Active</td>
</tr>
<tr>
<td>Antipsychotics</td>
<td>Active</td>
</tr>
<tr>
<td>Antidepressants</td>
<td>Active</td>
</tr>
<tr>
<td>Antianxiety Agents</td>
<td>Active</td>
</tr>
<tr>
<td>Antipsychotics</td>
<td>Active</td>
</tr>
<tr>
<td>Antiepileptics</td>
<td>Active</td>
</tr>
<tr>
<td>Antihypertensives</td>
<td>Active</td>
</tr>
<tr>
<td>Antidiabetics</td>
<td>Active</td>
</tr>
<tr>
<td>Anticoagulants</td>
<td>Active</td>
</tr>
<tr>
<td>Antiplatelet Agents</td>
<td>Active</td>
</tr>
<tr>
<td>Central Nervous System Agents</td>
<td>Active</td>
</tr>
<tr>
<td>Antiinfectives</td>
<td>Active</td>
</tr>
</tbody>
</table>

#### Clinical Reminders

Default = CR Due

Double click to view Clinical Maintenance details.

Process on Notes tab via Reminder Bar. Select Reminder Bar (under Templates) after selecting New Note.

#### Right Click to view options

- Clinical Maintenance
- Education Topic displays (document education done via IMED Consent)
- Reminder Inquiry
- Reference info = Internet-based data
- Icon Legend

#### Recent Immunizations

List only – Hover on item to see date.

<table>
<thead>
<tr>
<th>Immunization</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ant Sc</td>
<td>Jul 2</td>
</tr>
<tr>
<td>Ant Sc</td>
<td>May 26</td>
</tr>
<tr>
<td>Daptex</td>
<td>Jul 2</td>
</tr>
<tr>
<td>Flu Whole</td>
<td>Apr 2</td>
</tr>
<tr>
<td>Flu Whole</td>
<td>Oct 1</td>
</tr>
<tr>
<td>Flu Whole</td>
<td>Aug 1</td>
</tr>
</tbody>
</table>

#### Vitals

Displays Most Recent Documentation of Vitals in Vitals Lite System.

<table>
<thead>
<tr>
<th>Vital</th>
<th>Value</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>99 F</td>
<td>Oct 30, 2007</td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>140/66</td>
<td>Oct 30, 2007</td>
</tr>
<tr>
<td>Height</td>
<td>77 in</td>
<td>Oct 30, 2007</td>
</tr>
<tr>
<td>Weight</td>
<td>200 lb</td>
<td>Oct 30, 2007</td>
</tr>
<tr>
<td>BMI</td>
<td>31.9 (90.7 kg)</td>
<td>Oct 30, 2007</td>
</tr>
</tbody>
</table>

#### Appointments / Visits / Admissions

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### Chart TABS
Mimic a paper medical chart. For each tab, the View and Action menus change to display items relating specifically to that tab.

### Cover Sheet Tab
First screen shows an overview of a patient’s condition & history.

### Cover Sheet Tab - View Menu
- **Chart Tab** (same as on bottom)
- **Information** (same as menu bar window fields)

Navigate chart using either View | Chart on the menus or click tabs on the bottom.

### Problem List Tab
Displays a patient’s current and historical health care problems. The List allows each identified problem to be traced through VISTA.

Click Menu View options to Filter as desired.

### Medication Tab - View
medications orders lists for selected patient. Non-VA, Inpatient and Outpatient Meds listed in separate areas

CCU & HDU = Paper MAR
Non-VA Meds...Meds not provided by VA Pharmacy. Can be written by VA Provider where pt. has Rx filled at non-VA pharmacy

Double click med or select View Details to see more
**Printing Medications**

*Under Reports Tab* – go to Health Summary.

*Inpatient* – go to Visits/Admission go to Admit Recon MOHF Form.

*Right Click* - Print

*Outpatient* – go to Outpatient Meds Profile or Medications Given in Clinic

*Right Click* - Print

Discuss with Patient and update Provider of inconsistency for Medication Reconciliation.

---

**Nursing**

**Medication List for Patients** - Progress Note includes Active & Expired Outpatient medications.

Good tool for Outpatient Nurses to printout/ use for review of medications with outpatients.

FYI - The new CPRS Health Summary Report – (Medication Reconciliation and Medication Worksheet), do not include Expired Outpatient medications.

---

**Orders Tab**

Providers submit Orders. *Exception per ONSP #118-11-03 for Nurses – Outpatient RNs & LPNs submit Orders – See “Standing Orders / Consults Quick Guide”*

Nurses Only – View details or results from any order.

Add/Write pt. orders. Use View menu to display active orders, expiring orders, unsigned orders or create Custom Order List.

- **Add/Write** New Order - Click desired type via New Orders list box.
- Use Action Menu to Change, Hold, Renew, Flag or Sign Order.
- Click View and Action menus for more options.

Order Entry only - Add / Find / Release / Verify orders for a variety of items and procedures, (i.e. Non VA medications to document for med. reconciliation, vital signs, text, dists, consults, radiology & lab tests.)
How to Enter Orders
Outpatient RN/LPNs Only

1. Select Outpatient Nursing Standing Orders

2. On order set, choose order needed as per policy.

1. Enter Order

2. Select Accept Order

1. Select to Highlight Order for release.

2. Select Action; Select Release Order without MD Signature

3. Select as Appropriate; Verbal, Telephone or Policy, then OK

4. Enter Electronic Signature Code and OK.

Select (Policy for Nursing Standing Orders) for Outpatient Nurses.
Notes Tab - Default -
Reverse chronological display showing the 100 most recent notes entered for a specific patient.
Left = List Notes, Right = Details of selected Note.
Click on View or Action menus for available options, View Menu has Icon Legend

Notes with Addendum have a clickable plus + sign. Default Note List, (Per discipline / per ward) setup / prioritize minimum notes to complete per shift to display under New Notes.

How to View/Select
Hover on desired note to view Title, Location & Author
Click New Note to create a new Progress Note. May need to enter encounter info if visit was not defined.

Right Click on Note to customize view
**How to find specific information in Notes.**

While on NOTES Tab.

Select View from the Menu bar.

Click Search for Text (Within Current View)

---

Enter text of information you want to find.

Select OK

---

The system will scan all notes to find a match of the Text entered for search.

---

The Notes displayed are those containing the Text that matching your entry.

Review the content of these notes to find desired information.
# VASNHS CPRS Nurse Training User Guide and Lesson Plan

## All - Providers & HN/LN

### Consults Tab

Providers submit Consults.

**Exception per ONSOP #118-11-03 for Nurses - Outpatient RNs & LPNs submit Orders - See "Standing Orders / Consults Quick Guide"**

Consult = requests from one clinician to hospital, service or specialty for a procedure or other service. Use Consult tab to view request for Consults/Procedures.

Left = Consults/Procedures

Right = Text details of selected consult/ procedure.

Right-click on details for options under Action menu.

Click View or Action menus for options. View Menu has Icon Legend

Click New Consult or New Procedure to make request.

### Surgery Tab – Nurses Use to View Reports.

No note if no surgery.

Nurse intra-operative Note done via VistA in surgery package.

View Menu gives options

Includes dictated operative reports & Nurse intra-operative Report.

### Discharge Summary Tab – Inpatient Discharge Visits Only.

Nurses View ONLY.

Nurses Process on Paper

Displayed Physicians D/C

Summaries for patient.

Left = List Discharge Summaries.

Right-click on list for view options for tab.

Right = Text details of selected discharge summary. Right-click on details for options from Action menu.

Click View or Action menus for options. View Menu has Icon Legend

Authorized users can write, review, edit, save, and sign discharge summaries for individual patients.

Documenting visits, admissions, and consults should be much faster once templates are created. This document is developed via transcription of Provider Dictation or Provider/Case Manager entered progress note. Currently DO NOT USE Discharge (Inpatient) Note.

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Labs Tab
View Results of lab tests ordered for a selected patient.

To view lab test results:
1. Click Labs tab.
2. Click type desired
3. May need to choose a date range (Today, One Week, Two Weeks, One Month, Six Months, One Year, Two Years or All),
   + Plus sign by a lab test = it has a schedule.
If no data found, check date range, if none displayed, call Help Desk. All tests by date = all for date range selected.

Can review lab test results in many formats, i.e.:
- Most Recent
- Cumulative
  - All Tests by (specified) Date * Selected Tests by Date
  - Worksheet * Graph – Select one or more with Control
  - Microbiology * Anatomic Pathology
  - Blood Bank * Lab Status
- Date Range

Default = displays most recent test results. Can select oldest and scroll thru results as sorted, etc. HIM to Print. If Patient wants all lab results, send to HIM to sign release. Otherwise Patient can only get labs from doctor related to current care given for visit. Only Provider can give pt. info from medical chart. Clinicians may give pt. labs for educational purpose only.

View Lab Graph
On Lab Tab select Graph / Hold control to view more than one
Type / select desired lab value to graph,
Click OK
Reports Tab – Access via Tab or Menu Bar “View”

From the Reports tab, you can retrieve and print a number of reports for a selected patient. Look in the Available Reports list box to see what is available. Click on the “+” to expand a report heading.

Choosing a Department of Defense (DoD) report does not limit you to DoD data. For example, if you choose Microbiology under Dept. of Defense, you will get DoD data and remote VA data. You do not have to run a separate report for VA data.

Lab reports are generally text documents that can be printed. View lab results in a graph or worksheet format.

Reports – displays remote data, imaging results, Health Summary – pull as applicable to your area to pull summary of the record for reading.

Printing Medications

Under Reports Tab – go to Health Summary,

Outpatient - go to Outpatient Meds Profile or Meds. Given in Clinic

All – Remote Data

CPRS reports include Clinical Reports, Health Summary – (Med. Given in Clinic, Remote Data, Adm. Med Recon MOFH), Imaging (Radiology and Nuclear Medicine), Lab Status, Blood Bank Report, Department of Defense remote data, Anatomic Pathology Report, Dietetics Profile, Nutritional Assessment, Vital Cumulative, and others that your site wishes to list.

To view a report, use these steps:
1. Click the Reports tab.
2. See if the text on the Remote Data button is blue. If the text is blue, the patient has remote data.
3. To view remote data, which may include Department of Defense data, click the Remote Data button to display a list of sites that have remote data for the selected patient. If you do not want remote data, skip to step 5.
4. Click All if you want data from all the sites listed, or click the check box in front of the site names you want to view remote data from and close the Remote Data button by clicking the button again.
5. Select the report you want to view from the Available Reports box (click the “+” sign to expand a heading).
6. If necessary, select a date range from the Date Range box located in the lower left corner of the screen.

The report should be displayed either after step 5 or step 6. You can then scroll through and read the report. If the report is in tabular form, click on a row to reveal details about that row (to select more than one row press and hold the Control or Shift key).
Labs
How to view current labs for inpatients?

See Section # 8 for How to use Vista Web.

1). For Remote Data in CPRS, choose Dept. of Defense.

2). Under available reports select Dept. of Defense Reports and select the type of lab test for which you would like results.

Results are available immediately (3-4 milliseconds) once verified by technologist and transmitted from the lab analyzer to Vista.

Currently the lab personnel do not enter the results into CPRS/Vista because this would effectively double their workload. There is a software interface between CHCS and CPRS/Vista called LEDI-III that uses Health Level - 7 messaging to send results from CHCS to CPRS/Vista but it has not been fully implemented secondary to frequent Air Force personnel changes.

Answer: The VA is in a Sharing Agreement with the Air Force. The lab tests for inpatients are done in the Air Force Laboratory which is jointly staffed by Air Force and VA. The results are entered into CHCS (Air Force EMR) and can be retrieved by using Vista Web or Remote data.

If the user was logged on with the patient’s chart open when results are being transmitted, the user must “Refresh Patient Information” to actually see the results displayed on their screen.
**Key Learning Points are:**
1. How to Process Allergies - (Page 27 - 28)
2. Setting Up a Vital Signs Input Template - (Page 29)
3. How to Chart Vital Signs (including Actual Weights) - (Page 29 - 31)
4. How to Fix Vital Signs Charted in Error - (Page 32)
5. Create a Graph to Trend Vital Signs - (Page 33)
6. How to Identify, Document and Sign a Progress Note - (Page 34 - 35)
7. Add Additional Signers to Progress Notes - (Page 36)
8. Add Addendum to Signed Progress Note - (Page 36)
9. How to Correct a Signed Progress Note with Errors - (Page 37 - 38)
10. Customize a List of Progress Note Titles as a Default - RN & LPN Only - (Page 39)
11. How to Chart a Late Entry Note - (Page 40)
12. How to add/view Subject Line to Progress Note - (Page 41 - 42)

### Topic / Procedure

<table>
<thead>
<tr>
<th>Staff Nurses</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allergy</strong> - An adverse drug event mediated by an immune response. Include rash or hives.</td>
<td>Inpatient / Outpatient - Document Allergy in CPRS via Cover Sheet.</td>
</tr>
<tr>
<td><strong>Adverse Drug Event</strong> - A response to a drug that is noxious and unintended, which occurs with normal doses (therapeutic or prophylactic). Include nausea, vomiting, diarrhea, or lab abnormalities - All medications can pose a threat due to allergic reactions or adverse events. They should be monitored closely and adverse events documented appropriately. Screen patient for allergy before and after medication administration and document accordingly.</td>
<td></td>
</tr>
</tbody>
</table>

**Enter Allergy / Adverse Reaction**
1. Right-click in "Allergies/Adverse Reactions" window on CPRS cover sheet, select "Enter new allergy"
157

Identify Causative Agent - A drug product administered before the adverse drug event began and believed by the reporter to have contributed to its occurrence. Factors to consider include:
- Association of symptoms with administration of agent
- Resolution of symptoms with removal of agent or after treatment given
- Absence of a more likely cause

It is important that the causative agent be selected from the national drug file options, not the drug ingredient file.

In order to ensure that the appropriate allergy-drug order checks are triggered when a medication order is placed for a drug in the same class as the documented reactant, the selection must be made from the agents listed in the national drug file.

Select Observed or Historical Observed - CPRS definition: a reaction that is directly observed or occurring while the patient was on the suspected causative agent either from the VA or while under the care of a VA provider.
A common misconception is that the event has to be visibly observed by the reporter. Typically should have occurred within the last 3 months.

- Determine the nature of the reaction
- Document signs and symptoms of the event
- Utilize comment field when appropriate
- Evaluate the severity of the “observed” events
- Chart Date/Time when appropriate
- Select O.K.

Observed - CPRS definition: a reaction that is directly observed or occurring while the patient was on the suspected causative agent either from the VA or while under the care of a VA provider.
- A common misconception is that the event has to be visibly observed by the reporter
- Typically should have occurred within the last 3 months

Historic - CPRS definition: reported by the patient as occurring in the past; no longer requires intervention
- A past event more than 3 months old or an event that reportedly occurred in the past at another health care setting.
Setting up the Vital Sign Input Template

1. Click in the Vital Sign area on coversheet to open vitals.
2. In Right Corner of Vitals Lite, left click on Enter Vitals.
3. When vitals opens, click ‘Exp. View’ in the upper right corner of the screen.
4. Open it by left clicking the ‘plus sign’ and then choose a template i.e. “Outpatient” or ALL Vitals and the template will open. Once a template is chosen it remains the users default.

How to Chart Vital Signs

1. On Cover Sheet Tab - Double Click inside Vitals Window
2. In Vitals window, click “Enter Vitals”. Hospital Location Selector opens. Note: if location is already associated with pt. skip to step 3.

This will open a list of template folders in a column on the left side of the dialog box. Left clicking on the ‘plus sign’ in the folder box to the left of the ‘System’ folder opens the Las Vegas sub-folder.
### VASNHS CPRS Nurse Training User Guide and Lesson Plan

#### 3. Window to Enter Vitals
- Opens to display selected pt’s Name, SSN, & DOB, with selected Hospital Location and current Date/Time.
- Click related button to change Hospital location, date/time.
- Click the Exp. View button to display or hide Template panel.
- Click “Latest V.” button to display or hide the latest vitals on file.

The vitals data displays at the bottom of the Enter Vitals window.

#### 4. Type vital sign, click Enter to move to the next field.
- Click qualifier drop down arrow to select as applicable. Click OK.

#### 5. Finished – Click Save

#### 6. To enter more vitals for patient change date/time and/or location, repeat 4 & 5

#### 7. Click Save and Exit when complete to close Enter Vitals.

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How to Chart Actual Weight

1. After entering Weight on the Vitals Window in CPRS,
2. Right click on the drop down arrow next to weight under the Qualifies Column
3. Right click on the drop down arrow next to "Qualify"
4. Select “Actual”
5. Right click on drop down arrow next to Method and select from menu of options available that the weight was obtained for, (example for CHF patient – "STANDING WEIGHTS")
6. Select OK and Finish entering other vitals as appropriate.
7. Select Save and Exit when finished. This will appear on the Cover Sheet under the Vitals section.

FYI – This information is required in order to capture the information appropriately in CPRS for chart auditing purposes.
How to Fix Vitals Charted in Error

1. Select and double click any field in Vital Sign Window on Cover Sheet Tab
2. Select “Entered in Error”

3. Select desired date for vitals and item requiring change.
4. Hold Ctrl key down to select more then one item.
5. Select reason for error and Mark as Entered in Error.
6. Select Yes to confirm.

Anyone who enters vitals is able to mark vitals as entered in error.
How to Create a Vital Sign Graph

1. On Cover Sheet Tab:
   - Double Click inside Vitals Window
2. Select a date range:
   - Click a predetermined time frame from the box on the left of the graph. Today displays today’s data only, T-1 displays data for today plus one previous day, T-7 displays data for today plus seven previous days, and so on. All Results displays all available data for the selected patient.
   - OR
   - Click Date Range to set a customized date range, then select “Start with” and “Go to” dates.

All data within the selected date range is displayed in the graph and grid.

3. Select a type of graph:
   - Click a vital type row heading in the grid (for example, Temp or HR)
   - OR
   - Select a graph type from the drop-down list at the bottom left corner of the graph.

The selected graph opens above the grid, displaying the data values from grid. You can customize the graph by setting the Graph Options checkboxes, changing the zoom percentage, or changing the background color of the graph. However, the data grid cannot be customized.

Select Graph from File menu. Four checkboxes open on the left side of the graph:
A. Click Values box to display a numeric label for each point on graph.
B. Click Time Scale box to view the graph in actual time.
C. Click 3D box to create a 3D effect on the graph, (only with Time Scale).
D. Click Allow Zoom box to zoom the graph window in or out.

To Print Vital data graph: From the File menu, select Print Graph. A standard Print dialog box opens. Select a printer & OK.
**Blank Notes (empty)**
(i.e. Nurse GI Telephone)
Most Note titles are not a Boilerplate or a Template format.
Use Free Text to chart note and Sign.

**USE SHARED / NURSE MGR APPROVED TEMPLATES ONLY...**

**PERSONAL TEMPLATES DO NOT CREATE OR USE.**
Personal templates are created by the user where only the user who creates the personal template has access to it. Submit Survey/Change Request to request development of new templates.

**Outpatient Notes:**
The procedure for writing an outpatient note is the same as inpatient as long as the patient has an appointment. If not, you will be prompted to enter Encounter location.

- All actions including writing an electronic note require a location.
- Outpatient notes also need diagnosis and procedure codes. You will be prompted for this if no appointment is present to link the note.
- If you say “NO” to the diagnosis and procedural prompt you will create an action required and will potentially lose workflow and any reimbursement.
- Check the “Historical Box” to turn off billing/workload recording for Notes to document a “no-show” or a short phone call or that you ordered medication.

**Sign a Note**
1. Sign Notes = click right mouse button, select SIGN NOTE NOW.
2. Exit without signing = click right mouse button, select Save without Signature. ONLY AUTHOR CAN SEE. NOT LEGAL.
3. To complete unsigned note, select note, then Click the Right mouse button and click on EDIT Progress Note. Complete note, then click right mouse button, and select SIGN NOTE NOW.

**TIPS – Charted on wrong patient** - If note not signed, highlight desired text on wrong patient’s chart, right click select COPY then Paste to correct patient’s chart. Delete Note Charted on wrong patient.

**Correct Errors on Signed Progress Notes**
For Signed Note that may adversely impact patient care – (1) Identify Note and Make Addendum stating Note Entered in Error. (2) Complete and sign Note Removal Request template. (3) Use identify additional signers to Add Linda Belanger and Laredo Gois as additional signers.
- Notes that do NOT meet the HIMS guidelines for retraction will NOT be hidden from view.
- Note “removal” should NOT be used for title or clinic association change requests – those can be corrected by contacting the Chief of HIMS Service.
**VASNHS CPRS Nurse Training User Guide and Lesson Plan**

**Identify Additional Signers for Notes**
Used to alert other clinicians of a progress note. Clinicians receive notification of a note to sign. They can read and sign the note indicate receipt.

1. After signing the note select Action menu & “Identify Signers”.
2. Select clinicians
3. Select “OK”.

To remove an identified signer – Select Clinician from right side to remove.

**Completed/Signed Templates displays as a note which can be edited. Make sure you sign completed notes.**

**REMEMBER:** Can only edit before signing. No changes after signing. Can add addendum.

**Add Addendum to Note**
1. On Notes tab, find / click the desired note for addendum.
2. Right Click on note and select “Make Addendum”

After reviewing a signed progress note, you may want to add comments to any note, (including notes by other authors).
VASNHS CPRS Nurse Training User Guide and Lesson Plan

How to Process Signed Progress Notes with Errors

1) **Identify the note and add a new addendum** (DO NOT SKIP THIS STEP!!!)
   a. “Action” menu
      > “Make Addendum”:

2) While the blank addendum is open:
   Select and complete the “Note Removal Request” template
   a. Go to the “Templates” Drawer and double-click on “Shared Templates”
      Locate: the “Note Removal Request Template” within the alphabetical listing

3) Select the type of note to be removed.
   If you want to only remove an addendum, select the Addendum Removal radio button. If you want both the note and the addendum, select Note Removal

- Only the author of the note, or a service chief, may request to have a note removed. Notes that do NOT meet the HIMS guidelines for retraction will NOT be hidden from view.
- Note “removal” should NOT be used for title or clinic association change requests – they are corrected by the Chief of HIMS Service.
- If you have questions, e-mail: laredo.gcis@va.gov
If you selected the **Addendum removal** option, this template will appear. Fill out the form and make sure you enter the **EXACT date AND time** of the addendum that you want removed.

If you selected **Note Removal** option, this template will appear. Fill out the form.

4. Complete the note, select OK and then Sign it.

5. **Select Action > Identify Additional Signers.**
6. Then add Lareno Gois and Linda Belanger by typing in Gois, Laredo and click Add button. Do the same for Belanger, Linda
7. Select OK.
### How to Customize a Personal List Progress Note Titles as a default view

Select Tools from the Menu bar.

Click Options

#### Select Notes Tab

Click Document Title

<table>
<thead>
<tr>
<th>Step</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Select drop down arrow for Document Class and select Progress Notes.</td>
</tr>
<tr>
<td>2.</td>
<td>The Document titles field is automatically populated with all available choices.</td>
</tr>
<tr>
<td>3.</td>
<td>Scroll to select desired Progress Note Title.</td>
</tr>
<tr>
<td>4.</td>
<td>Highlight one then select Add button to move desired note title to Your List of Titles. (Hold down Control key to select multiple titles).</td>
</tr>
<tr>
<td>5.</td>
<td>To select a title from your list as your default, highlight it and select on Set as Default.</td>
</tr>
<tr>
<td>6.</td>
<td>Select Save Changes if making more changes on this dialog.</td>
</tr>
<tr>
<td>7.</td>
<td>Select OK.</td>
</tr>
</tbody>
</table>
How to Chart a Late Entry Note

1. Select Desire Note Title
2. In “Date/Time of Note” Field: change to date/time when event took place.
3. Use the calendar to select desired date/time when event took place.
4. Select O.K.
5. Review “Date / Time of Note” to ensure it reflects selection.
7. Type “LATE ENTRY NOTE” at the top of the note.
8. It is also required to document the reason for the delay.
9. Sign Note.

Note contains separate dates/times for:
Date /Time of Note: Reflects the selection entered in step B above.
Date / Time Note Signed: Reflects the actual time you entered your signature code to sign note.
How to Add & View a Subject Line in Progress Notes

Steps to add Subject Line as a default to your notes:

1: Select Tools
2: Select Options

3: Select Notes Tab
4: Select Notes Bar
5: Add check mark to Ask Subject for progress notes
6: Select OK

Steps to Sort and View Subjects in Progress Notes

1: Select View from menu bar
2: Select Custom View
Add desired text to subject line of Progress Note.
Complete and sign note.

**How to add/view Subject Line to Progress Note**

Steps to Sort and View Subjects in Progress Notes – continued

3: Add check to Subject
4: Type desired term to Contains:
5: Select OK

**View Progress Notes with desired Subject Line terms. Notes with desired term in Subject Line will display in BOLD TEXT**

Notes with desired term in **Subject Line** will display in **BOLD**

Desired Term displays in
How to Process / Document Clinical Reminders

View the DUE NOW Clinical Reminders in the middle of the Cover Sheet tab.

A Clinical Reminder serves to notify the clinician what needs to be done during the patient clinic visit. They are based on patient specifics, (i.e. age, sex, dx., medications, etc), and appear when “DUE” on the cover sheet if the clinician has the authority to complete it.

On Notes Tab,
1. Select New Note
2. Open Desired Note Title, Click OK

3. With Cursor blinking in top right window of note, Click Reminder sub-bar to open lists:
   - Due
   - Applicable
   - Not Applicable
   - All
4. Select desired Reminders
5. Complete appropriate fields and then select Finish.

6. Proof, Edit and Sign Progress Note (including completed Clinical Reminder).
   Complete Clinical Reminders display a Red Check mark.

**View List of Clinical Reminders Assigned by User Class**

- Select from the top right corner of the Cover Sheet Tab
- Select **Action** from Menu
- Select **Edit Cover Sheet Reminder List** to see assigned Clinical Reminder by User Class.
- Scroll down to see entire list. FYI – Nurse User Class is LV CPG NURSE (RN/LPN)
Complete Clinical Reminder Template:
Lower Window displays Health Factors.
Select Finish when complete.
HBPC - For Flu/Pneumonia
Vaccinations – Document:
1. Date Vac (Given/Done)
2. Site of Vac Shot
3. Response to Vac
4. Name - Nursing Home

View narrative text of items documented in the Clinical Reminder Template which automatically displays in a Note format.
Also see updated history of patient information below the note in lower right window.

Sign Note via Action menu bar
or
Right click inside note window.
### Key Learning Point: How to find Notes, by Author, by Date Range, Specific Information.

<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>While on NOTES Tab.</td>
<td></td>
</tr>
<tr>
<td>Select View from the Menu bar.</td>
<td></td>
</tr>
<tr>
<td>Use View on Note Tab to Search for Notes by Author, Date Range, Specific Word(s); Custom</td>
<td></td>
</tr>
<tr>
<td>1. Click Search for Text (Within Current View)</td>
<td></td>
</tr>
<tr>
<td>2. Enter text of information you want to find.</td>
<td></td>
</tr>
<tr>
<td>3. Select OK</td>
<td></td>
</tr>
<tr>
<td>The system will scan all notes to find a match of the Text entered for search.</td>
<td></td>
</tr>
<tr>
<td>The Notes displayed are those containing the Text that matching your entry.</td>
<td></td>
</tr>
<tr>
<td>Review the content of these notes to find desired information.</td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>R</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How to Chart Initial VANDO Skin Assessment</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Med Surg Only - 2 RNs co-assess and agree on Initial Skin condition as evident by both RNs signing on the relevant note.</strong></td>
<td></td>
</tr>
</tbody>
</table>

1. Select and open desired Note, (i.e. “Nursing Admission Assessment Note”) by following steps above (How to Chart Notes).
2. Select and open “VANDO Skin Initial Assessment” from Shared Template - Nursing Inpatient.
3. Select/chart “Braden Scale” & desired fields), then Select Finish when done.
4. Proof/edit text as needed.
5. Right click to open menu and select Sign Note Now.
6. Enter Signature Code, then select OK.
7. Right Click and Select Identify Additional Signers.
8. Find 2nd RN who Co-Assessed the initial skin assessment.
9. Select Add, then OK to add Alert to 2nd RN for review/signature.
10. 2nd RN opens relevant Notification note, then reviews / signs it note with their CPRS login.
How to Chart VANOD Reassessment

1. Open Notes tab in CPRS
2. Select New Note to open “Progress Note Properties” Window.
3. Type “Reassessment” into the field entitled “Progress Note Title”.
4. Scroll down & select desired Reassessment Note Title, (i.e. “Nursing Med/Surg Reassessment Note”).
5. Select OK to open the template note
6. Select charting fields as desired, including:
7. Select OK when finish.
8. Select desired location on note to insert new text, (blinking cursor).
9. Select to Templates
10. Select Shared Template
11. Select Nursing Inpatient Folder
12. Double Click on VANOD SKIN REASSESSMENT.
13. Select desired fields, (including Braden Scale, etc.) and select finish when complete.
14. Proof and edit text as desired until finished.
15. Sign Note with Signature Code.

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How to Chart Belongings in IMED Consent

COMPLETE WITHIN 1 HOUR OF ADMISSION:

1. Select Tools dropdown menu
2. Select Consents / Education and Discharge Instructions
3. Select IMedConsent
4. Type Belongings into the Search Phase for ALL Documents
5. Select GO
6. Select Administrative
7. Select Belongings Inventory, (VASNHS)
8. Complete it as appropriate
9. Select Finish when complete
10. Select “Sign” when allowing patient to use signature pad to sign document.
11. Select “Save to Chart”
12. Select Close

Signed document is available for view in VistA Imaging Display.
### Section: # 4 - How to Use Vista Imaging Graphics

**Key Learning Points are:**

1. Using Vista Imaging to locate/obtain Graphical Documents – RN & LPN (Page 50-51)

<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VISTA Imaging (CPRS)</strong>&lt;br&gt;CPRS INSYNC with VISTA Imaging = MUST SEE BLUE MAN WITH VERTICAL BAR</td>
<td>VISTA Imaging used with CPRS to display a fully integrated electronic patient medical record with graphical images.</td>
</tr>
<tr>
<td><strong>Login with VISTA UserName and Password</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Select desired sub-tab:</strong>&lt;br&gt;Clinical, Advance Directive or Radiology, then double-click image from list</td>
<td></td>
</tr>
<tr>
<td><strong>Use Menu-bar icons to change view image as desired.</strong>&lt;br&gt;Close when finished.</td>
<td></td>
</tr>
<tr>
<td><strong>Radiology</strong>&lt;br&gt;<strong>Question:</strong> What are the criteria for Images vs. reports displaying in Vista Imaging via CPRS?&lt;br&gt;<strong>Question:</strong> How much time does it take between when Radiology Reports / Imaging resulted are displayed in CPRS?</td>
<td><strong>Answer:</strong> CPRS can not display images, only the report displays on the reports tab in CPRS. The actual image is stored on the PACS server and is available using Web 1000 to view it in a web browser window or via Vista Imaging. The link on the tools menu for Vista Imaging actually launches a separate software application. <strong>Answer:</strong> Once the Radiologist verifies the report it is available almost immediately. If the CPRS User has a session open at the time the result is verified and has the same patient selected refreshing patient information is necessary for the report to display.</td>
</tr>
</tbody>
</table>
### Validating an Advance Directive in VistA Imaging Display

**Where to find Advance Directives:**

1. VistA Imaging Display will have any scanned copies or Advanced Directives and documentation in IMED Consent.

2. The "D" in the postings box stands for Advance Directive. Absence of the letter "D" may indicate the patient has no Advance Directive on file.

3. Check VistA Imaging Display to validate if an Advance Directive is available to view.
   a. Select Tools dropdown menu
   b. Select VistA Imaging Display
   c. Search and select desired Advance Directive for view.

---

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## Section # 5 – Outpatient Nurse Documentation of Encounters

**Key Learning Points are:** How to process / document Encounters (Page 52–57)

<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
</table>
| **Document Encounter**  
*On Note Tab –*  
- Click Encounter  
- Click New Encounter  
*Used in face to face or voice to voice contacts. Check pt in/out of clinic appointment & documents workload affects outpatient clinic budgets. Check pt in/out of clinic. Step not required if Patient checked in via Clerk.* |  |
| **Complete for:**  
**Progress Notes, Consults and Discharge Summary**  
Step not required if Patient checked in via Clerk |  |
| **On Clinic Appointment subtab –** Select appropriate clinic visit / date, (may expand date range to find clinic visit). Select O.K. |  |
| **New Visit subtab –** Type Clinic to display for selection. Verify Date, Select box for Historical Visit as applicable, Then Select O.K. Step not required if Patient checked in via Clerk |  |
**Visit Type**

- **Type of Visit**
  1. **New Patient** – Only if new to Specialty Clinic
  2. **Established** if previously seen
  3. **Section Name**
     - Select desired
  4. **Modifier** – Disregard

**Available Provider**

- As Applicable for Nurse – If you are not the Primary Provider, select your Name as Secondary Provider

---

**Diagnosis Tab:**

**Procedure Tab:**

- **Procedure Section**
  1. Select Other Procedure button
  2. Enter Procedure Code into Search box and select search button.
  3. Select to highlight the Procedure in Window.
  4. Click OK

Selected Procedure appears in the bottom window. Add others as appropriate.

See separate Handout List for Nursing Clinic Diagnosis / Procedure Codes,

- 99211 for items that do not have procedure code established.
- Others – See List

---

**Complete Encounter after Completing Note**

**Primary Provider to complete Primary Provider input**

**Primary Provider to complete or Specialty Clinic Nurse - See separate Handout for Nursing Clinic Diagnosis / Procedure Codes**

---

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<table>
<thead>
<tr>
<th>Vitals Tab:</th>
<th>Should already be completed and Edited on Cover Sheet Tab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization Tab:</td>
<td>Should already be completed via clinical reminder resolution</td>
</tr>
<tr>
<td>Skin Tests</td>
<td>Should already be completed via clinical reminder resolution</td>
</tr>
<tr>
<td>Patient Education</td>
<td>Patient education material available via IMED Consent, Krames on Demand and Micromedex. Ensure a progress note and results of the teaching and assessment are documented for all patient education performed. Can be completed via IMed Consent or Shared Template “Learning Needs Assessment” Template</td>
</tr>
<tr>
<td>Health Factors</td>
<td>Should already be completed via clinical reminder resolution. Patient Refusal documented in notes will display in encounter.</td>
</tr>
<tr>
<td>Exams</td>
<td>Should already be completed via clinical reminder resolution.</td>
</tr>
<tr>
<td>Complete Note Related to Visit</td>
<td>Create progress note and/or telephone note to document visit info. Outpatient Note format - RN = SOAPE / LPN = SOPE</td>
</tr>
</tbody>
</table>
| Causes for Action Required                       | • Appointment made but no note associated with the appointment  
• Patient seen note started but not signed  
• Patient seen note started/signed but encounter form not completed  |
| Main Causes for Incomplete Forms                 | 1. Service connected square not checked  
2. No primary diagnosis  
3. Type of visit section name not selected – Visit not billed  
4. Primary provider not selected  
5. Selecting patient from global list & clicking on new visit when starting a new note instead of clicking on a clinic appointment.  |
Nursing Clinic Visits – (Patient visit separate from provider visit).

On Clinic Appointment subtab - Select applicable clinic visit / date, (may expand date range to find clinic visit). Select O.K.

New Visit subtab – Type Clinic to display for selection. Verify Date, Select box for Historical Visit as applicable, (when no face to face or voice to voice visit), Then Select O.K.

Visit Type
- Type of Visit –
- New Patient – Only if new to Specialty Clinic
- Established if previously seen
  - Section Name
    - Select Desired
  - Modifier
    - Disregard

Available Provider
- Type, Select your Name as Primary

Documentation of Encounter Info
Encounters used in face to face or voice to voice contacts to: Check patients in/out of clinic appointment and to document workload which affects outpatient clinic budgets.

On Note Tab
- Select Encounter.
- Select New Encounter

Select patient from Clinic List
Complete for:
- Progress Notes, Consults and Discharge Summary

Steps not required if Patient checked in via Clerk

Outpatient Nurse W/ Clinics
**Diagnosis Tab:**

1. Select Other Diagnosis button
2. Enter Diagnosis Code into Search box and select search button.
3. Select to highlight the Diagnosis in Window.
4. Click OK

Selected Diagnosis appears in the bottom window. Add others as appropriate.

See separate Handout List for Nursing Clinic Diagnosis / Procedure Codes.

**Procedure Tab:**

Procedure Section

5. Select Other Procedure button
6. Enter Procedure Code into Search box and select search button.
7. Select to highlight the Procedure in Window.
8. Click OK

Selected Procedure appears in the bottom window. Add others as appropriate.

See separate Handout List for Nursing Clinic Diagnosis / Procedure Codes.
- 99211 for items that do not have procedure code established.
- Others – See List
### VASNHS CPRS Nurse Training User Guide and Lesson Plan

**Nurse Clinic Visit - Nurse**

<table>
<thead>
<tr>
<th>Section Name</th>
<th>Modifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>As appropriate or 99211 (important)</td>
<td>As desired</td>
</tr>
</tbody>
</table>

Click **OK** when complete.

---

**Vitals Tab:**
Should already be completed and Edited on Cover Sheet Tab

**Immunization Tab:**
Should already be completed via clinical reminder resolution

**Skin Tests**
Should already be completed via clinical reminder resolution

**Patient Education**
Patient education material available via IMED Consent, Krames on Demand and Micromedex. Ensure a progress note and results of the teaching and assessment are documented for all patient education performed. Can be completed via IMed Consent or Shared Template “Learning Needs Assessment” Template.

**Health Factors**
Should already be completed via clinical reminder resolution. Patient Refusal documented in notes will display in encounter.

**Exams**
Should already be completed via clinical reminder resolution.

**Complete Note Related to Visit**
Create progress note and/or telephone note to document visit info. Outpatient Note format - RN = SOAPE / LPN = SOPE

**Causes for Action Required**
- Appointment made but no note associated with the appointment
- Patient seen note started but not signed
- Patient seen note started / signed but encounter form not completed

**Main Causes for Incomplete Forms**
- Service connected square not checked
- No primary diagnosis
- Type of visit section name not selected = Visit not billed
- Primary provider not selected
- Click on new visit when patient already had an established appointment.
### VASNHS CPRS Nurse Training User Guide and Lesson Plan

#### Section # 6 – Patient Education Material

**Krames on Demand, Medline Plus and Micromedex**

**Key Learning Points are:**
*How to obtain patient education materials from Krames, Medline Plus, Micromedex*

<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Education Material</strong></td>
<td></td>
</tr>
<tr>
<td>Select Tools from Menu bar</td>
<td></td>
</tr>
<tr>
<td>Select Patient Education</td>
<td></td>
</tr>
<tr>
<td><strong>Select</strong></td>
<td></td>
</tr>
<tr>
<td>- Krames on Demand</td>
<td></td>
</tr>
<tr>
<td>- Medline Plus</td>
<td></td>
</tr>
<tr>
<td>- Micromedex</td>
<td></td>
</tr>
</tbody>
</table>
### Section # 7 - CPRS Help Resources

**Key Learning Points are:**

1. *How to contact Site SuperUsers* *(Separate Handout)*

2. *How to use the Menu Bar – Help Option in CPRS* *(Page 59)*

3. *How to contact a Clinical Application Coordinator, (CAC) for Help* *(Page 60)*

<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site SuperUsers</strong></td>
<td>See Handout</td>
</tr>
</tbody>
</table>

- **A11** Go to Help in CPRS for answers to pre-established questions. Select HELP from the menu bar (Select Content or About CPRS as desired)

- **A1** Click Tab as desired to find information. Select Index, Type or Select index you want information on.
Contact a CAC for Help with CPRS

Go to VASNHS Home Page
Select Departments & Sub Webs

Select CPRS Home Page (Clinical Applications)

Contact CAC listed by phone or select link to:
### Key Learning Points are: How to use VISTAWeb as CPRS backup

<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Vista Web for Results View or as CPRS Backup</td>
<td></td>
</tr>
<tr>
<td>Select VistaWeb via upper right corner in the CPRS Windows OR Select VISTAWeb from the bottom of the VASNHS Home Page</td>
<td></td>
</tr>
<tr>
<td>Enter Vista Login (Access Code / Verify Code), then click Login</td>
<td></td>
</tr>
<tr>
<td>Skip this step if entering Vistaweb within CPRS: Enter Patient SSN, then click Find. Select Patient from match list, then click OK</td>
<td></td>
</tr>
<tr>
<td>Click Continue to Patient Record</td>
<td></td>
</tr>
<tr>
<td>View Notifications and Alerts, Select Desired Results to view from Left side Menu navigation bar</td>
<td></td>
</tr>
</tbody>
</table>

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# Section # 9 - CPRS Practice Session - Day in the Life of a Nurse

**Key Learning Points are:** Review and Practice Session

<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
</table>
| **Day In the Life of a Staff Nurse** | 1. Select and open a tested patient’s chart.  
2. Review / Process Flags / Alerts / Notification  
3. Document Vitals, (including Actual Weight)  
4. Document and Fix Incorrect Vitals  
5. Create a Graph of Vitals data for last 6 months to 1 year.  
6. Document Observed Allergies (as applicable for work location)  
7. Review / Sort Active Problems  
8. Review / Recent Immunizations  
9. Review / Recent Medications for Medication Reconciliation  
10. Use Remote Data to identify progress notes at another VA site.  
11. Use VistA Web to display and review Labs within date range.  
12. Identify Last Done Date for a Reminders via Maintenance  
13. Identify and Process all Due and TWO Applicable Clinical Reminders assigned to RN/LPN.  
15. Sort/View all Notes by author, signed, unsigned, custom view, etc  
16. OUTPATIENT NURSE ONLY –  
a. Complete and sign a Medication Given in Clinic Note  
b. Process Encounter for Procedure for Non-Nursing Clinic Visit for Primary Care or Specialty Clinic  
c. Enter Standing Order & Release it without MD Signature.  
d. Review Health Summary for Medications Given in Clinic  
17. INPATIENT NURSE ONLY –  
a. Complete and sign an Admission Note, (including VANOD Initial Skin Assessment  
b. Complete and save Belongings via IMED Consent  
c. Complete / Sign a VANOD Skin Reassessment Note  
18. Process a Note as if it is a Signed Note in Error, (add Linda DeVaull-Graham as additional signor instead of Larendo Gois and Linda Belanger)  
19. Chart a Late Note.  
21. Find contact phone number for Debra Pate, CAC via intranet |

**Nurse Assistant**

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1.  | Select and open a tested patient’s chart.  
2.  | Document Vitals (including Actual Weight)  
3.  | Document and Fix Incorrect Vitals  
4.  | Create a Graph of Vitals data for last 6 months to 1 year  
5.  | OUTPATIENT NURSE ONLY – Complete a Note and process a Note as if it is a Signed Note in Error, (add Linda DeVaull-Graham as additional signor instead of Larendo Gois and Linda Belanger)  
6.  | Find contact phone number for Debra Pate, CAC via intranet |

**Instructor To Do** — (Document Notifications, Act as Clerk to Document Encounter Location for Outpatient & Act as Provider to document Provider data per encounter)
Proper Nursing Documentation

Objective – Provides tools & rationale for proper nurse charting in the patient’s medical record.

Key Learning Points:

1. State purpose for proper documentation in the medical record
   a. Proves standards are met for quality, regulatory and judicial needs
   b. Reflects patient’s clinical status, medical treatment plans, nursing plans and responses to treatment, injury and interventions
   c. Describes care planned to be provided and care that was given
   d. Means of communication among healthcare team – key link keeps all healthcare providers informed/in sync on vital patient information

2. State required elements of Nursing documentation
   a. Legible and Comply with policy
   b. Accurate and Timely
   c. Factual/Thorough/Sequential – Care in sequence of actual events
   d. Evidence of performing professional duty
   e. Evidence of professional competence within your scope of practice
   f. Evidence of providing quality care and acted as patient advocate

3. State types of documentation to avoid / * Common charting mistakes
   a. Another patient’s name
   b. Subjective Words
   c. Criticizing or blaming others
   d. Battles over treatment decisions
   e. Copy & Paste
   f. Self-Made Templates
   g. *Mention/reference to documents that’s not part of medical record
   h. *Unapproved abbreviations
   i. *Charting someone else’s work
   j. *Charting in advance

3. Identify 3 Basic Goals Nursing documentation should meet to stand on its own to provide a complete, accurate picture of patient needs and care
   a. Accurately describes the patient’s condition and progress
   b. Communicates clearly, using specific, objective language
   c. Satisfy legal requirements
VASNHS CPRS Nurse Training User Guide and Lesson Plan
Checklist to Determine if You Are Properly Documenting

Nursing Documentation in the Patient's Medical Record Should Meet Three Basic Goals:

1. Accurately describes the patient's condition and progress
   a. List initial Assessment data
   b. Identify potential and actual problems
   c. Detail of procedures, treatments, and drugs administered
   d. Describes the patient's response to care, procedures, treatment and drugs
   e. Delineate patient teaching, include topics covered / evaluation of patient learning
   f. List Nursing Actions
   g. Name the people you notified of the patient’s condition

2. Communicate clearly, using specific, objective language
   a. Give exact times and dates for assessments, interventions and other events
   b. State the facts in a straightforward manner
   c. Quote the patient directly when appropriate
   d. Describe only what you’ve seen, heard, smelled and touched.
   e. Avoid assumptions and personal opinion
   f. Use only approved standard abbreviations and correct spelling.
   g. Make handwriting neat and legible.

3. Satisfy legal requirements
   a. Document in accordance to facility policy.
   b. Be accurate and truthful
   c. Allow no omissions, blanks or unused spaces
   d. Note all communications with other care providers
   e. List all assessment findings and nursing actions.
   f. Do Not refer to documents that are not part of the medical record, (i.e. incident reports)
   g. Sign and Date all documentation.

Nursing Documentation That Can Stand On Its Own – Must be a complete, accurate picture of patient’s needs and care received:

1. Identify the assessment data used to formulate the nursing diagnoses / interventions.
2. Reflects key questions that support or refute the nursing diagnoses.
3. Is based the Nursing diagnoses on data obtained from the health history interview, physical examination, and diagnostic test results.
4. Correlates health history data with physical examination findings and diagnostic test results
5. Reflects realistic expected outcomes
6. Reflects your nursing interventions as related to the nursing diagnoses.
7. Reflects achievement of expected outcomes related to nursing interventions
8. Reflects revision of nursing diagnoses and interventions based on pt. evaluation data.
9. Communicates patient information to appropriate health care team members.

Mosby’s Surefire Documentation – How, What and When Nurses Need to Document - Edition 2
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September 8, 2016 Page 64 of 65 L. DeVaul-Graham
VASNHS CPRS Nurse Training User Guide and Lesson Plan
MEDICAL RECORDS - CHARTING GUIDELINES

1. Remember the Medical Record is a legal document and subject to outside review by patients, attorneys, outside agencies etc.

2. Notations in the medical record should be professional in character and not point fingers at other staff and/or departments or services.

3. Entries must be sequential in nature.

4. If an incident occurred prior to the last notation entered, the out of sequence entry should be labeled "late entry" and bear the actual date the statement is written and within the body of the note you should refer to the previous time and date.

5. Entries must be prompt, legible, significant, accurate and complete.

6. Avoid inconsistent and contradictory entries.

7. Eliminate the use of terms such as Incident Report filled out. When incidents occur, simply state the facts of the incident in the progress note.

8. Content/Style: Charting should reflect the patient's current condition in a concise but descriptive manner using the following guidelines:
   a. Notations should be accurate and specific enough so that a person who has never known the patient will have a good understanding of the patient and his care.
   b. Notations should be professional in character, i.e., factual without slang/street language, unless these are quoted from the patient, and not contain moralistic judgments.
   c. Notations, requiring the use of psychiatric terminology should include a description of the behavior and the incident so the meaning is clearly understood.
   d. When references to contacts with family, friends or staff, are made, the individual's name should be used cautiously and professionally. If reference to another person, use only the person's first name, and if necessary the last initial and/or title. Full names of individuals will only be recorded as it is relevant to patient care and/or clinical judgment supports the need.
   e. Inappropriate comments such as pointing out problems with other individuals or sections are not allowed.
APPENDIX D: THE JOINT COMMISSION (TJC) CPRS TRACER-ASSESSMENT & TRAINING FOR NURSES

Key Learning Points for Mental Health, (MH) and ICU/Med Surg (ICU/MS Nurses):

1. Cover Sheet Tab – How to Find
   a. Preferred language for healthcare - Page 1
   b. Advance Directive - Page 2
   c. Vital Signs (recent) – Page 2
2. Meds Tab – How to Find Current Medications – Page 2
3. Notes Tab – How to Find
   a. Specific Note Titles (i.e. History & Physical / Consents) – Page 3
   b. Notes containing specific information (terms) – Page 4
   c. Graphic Images associated with notes via Vista Imaging Display – Page 4 & 5
4. Notes Tab - How to document
   a. Nurses‘ contribution to Medication Reconciliation - Page 6
   b. Admission screening and assessment for:
      II. Pain Assessment - MH = Page 7 / ICU/MS = Page 9 & 10
      III. Screenings – Alcohol / Nutrition / Abuse / Suicide
          MH = Page 7 & 8 / ICU/MS = Page 9 & 10
          Patient Education - MH = Page 7 & 8 / ICU/MS = Page 9 & 10
      IV. Discharge Plan - MH = Page 7 & 8 / ICU/MS = Page 9 & 11
      V. VANOG Fall / Skin Risk - MH = Page 7 & 8 / ICU/MS = Page 9 & 11
      VI. Restraints - MH = Page 7 & 8 / ICU/MS = Page 9 & 11
      VII. Universal Protocol – Bedside Procedure Time-Out - ICU/MS = Page 9 & 11
      VIII. Care Plan - MH = Page 9 / ICU/MS = Page 9 & 11
      IX. MH Group Education - MH = Page 9
5. Consults Tab – How to find/determine status and review plan for consults – Page 12
6. Lab Tab – How to find Lab Results/ How to get Notification of Lab Results – Page 13
7. Reports Tab – How to Find
   a. Age / Race and Ethnicity – Page 13
   b. Admitting date/time and Diagnosis – Page 14
   c. Location patient transferred from – Page 14
   d. PRN Medication Effectiveness – Page 14
8. IMED Consent for Patient Education – Page 15 and 16

<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to find the Preferred Language for Healthcare Discussion</td>
<td></td>
</tr>
<tr>
<td>1. Under Cover Sheet Tab – Double Click Preferred Language for Healthcare Discussion in the Clinical Reminder Box</td>
<td></td>
</tr>
<tr>
<td>2. View:</td>
<td></td>
</tr>
<tr>
<td>Clinical Reminder Date DUE Date</td>
<td></td>
</tr>
<tr>
<td>Alcohol Screening (50-60) Dec 6, 13</td>
<td></td>
</tr>
<tr>
<td>Diabetic Retinopathy Mar 15, 13</td>
<td></td>
</tr>
<tr>
<td>Nursing Chart / Weight Instructions Oct 11, 13</td>
<td></td>
</tr>
<tr>
<td>MI, MIO, Diabetes- LDL x100 Feb 13, 13</td>
<td></td>
</tr>
<tr>
<td>Hypertension - Last BP 130/80 Feb 13, 13</td>
<td></td>
</tr>
<tr>
<td>Medication List Reconciliation DUE NOW</td>
<td></td>
</tr>
<tr>
<td>DM OUTPATIENT NEPHROPATHY SCREENING</td>
<td></td>
</tr>
<tr>
<td>PAIN ASSESSMENT REASSESSMENT DUE NOW</td>
<td></td>
</tr>
<tr>
<td>Health Factor: ENGLISH</td>
<td></td>
</tr>
<tr>
<td>02/24/2014 06:00</td>
<td></td>
</tr>
</tbody>
</table>
### How to find Advance Directive
1. Under Cover Sheet Tab –
2. Review the Posting Box for Advance Directive and Double Click on it to view details.

### How to find recent set of Vital Signs
1. Under Cover Sheet Tab –
2. View Vital Box
3. Double Click on Vital Box to view more / select icon to chart or correct VS entered in errors.

### How to find current meds
1. Under Meds Tab –
2. View Outpatient, Non-VA and Inpatient Medications, (including Status).
<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How to View H&amp;Ps, Consents, Etc.</strong></td>
<td><strong>View CPRS in use by:</strong> Devault, Graham, Linda R. (visite.ies-vegas.med.uv.gov)</td>
</tr>
</tbody>
</table>
| 1. On Notes Tab | **ZEPSY**
| 2. Select View From Notes Tab Menu Bar | Provider: DEVAUttttL GRAHAM, LINDA R. |
| 3. Select Custom View | Privacy Case/Template Tab |

4. Under **Status** - Select Signed documents (all)
5. Under **Where either of** Select Title box
6. Under **Contains** –
   a. Enter **Acute Care History** to view H & Ps
   b. Enter **Consents** to view
7. Select O.K. View Desired Note

8. Under Note Tab - All Notes containing desired term, displays in **bold text** (i.e. Consent)
How to find specific terms/information in a Note:

1. Under Notes Tab
2. Select View from the Menu Bar
3. Click Search for Text (Within Current View)
4. Enter text of information you want to find.
5. Select OK

The system will scan all notes to find a match of the Text entered for search.

The Notes displayed are those containing the Text that matching your entry, (i.e. Education)

Review the content of these notes to find desired information.

This icon = Graphie Image associated with this note in Vista Imaging Display.
How to View Graphic Images associated with Notes in Vista Imaging Display
1. Select Vista Imaging Display from Tool bar.
2. Wait for it to launch

3. Click Clinical All to view list of all saved images.
4. Double click on desired item, (i.e. Consents, Patient Education, EKG, Anesthesiology Notes, etc.) from list.

5. View desired item, ((Consents, including Signatures), Education Materials that were Saved to the Chart, etc.)
### How to document Nurse’s contribution to Medication Reconciliation

Under Notes Tab

1. **Mental Health**
   - Select and chart on Nursing MIH Contribution to Med Rec. template
   - via Shared Template – Mental Health/Inpatient – Nursing folder
2. Click O.K. to finish.
3. Sign Note.

---

### ICU/Med Surg –

1. **Open Nursing Admission Assessment Note**
2. Select and complete fields in the Medication Management section in the Nursing Admission Assessment note.
3. Click O.K. to finish.
4. Sign Note.
<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How to document</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Learning Needs Assessment</strong></td>
<td></td>
</tr>
<tr>
<td>Under Notes Tab</td>
<td></td>
</tr>
<tr>
<td><strong>Mental Health</strong></td>
<td></td>
</tr>
<tr>
<td>1. Select Nursing</td>
<td></td>
</tr>
<tr>
<td><strong>Learning Needs Assessment</strong> template</td>
<td></td>
</tr>
<tr>
<td>(via Shared Template – Mental Health/Inpt – Nursing folder.</td>
<td></td>
</tr>
<tr>
<td>2. Enter/select <strong>Nursing PSYCH Adult Admission</strong> Progress Note title</td>
<td></td>
</tr>
<tr>
<td>3. Select and complete relevant fields</td>
<td></td>
</tr>
<tr>
<td>4. Click O.K.</td>
<td></td>
</tr>
<tr>
<td>5. Sign Note when complete.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How to document</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Assessment</td>
<td></td>
</tr>
<tr>
<td>Screenings - Alcohol</td>
<td></td>
</tr>
<tr>
<td>Nutrition / Abuse / Suicide</td>
<td></td>
</tr>
<tr>
<td>Patient Education</td>
<td></td>
</tr>
<tr>
<td>Discharge Plan</td>
<td></td>
</tr>
<tr>
<td>VANOD Fall / Skin Risk</td>
<td></td>
</tr>
<tr>
<td>Restraints</td>
<td></td>
</tr>
<tr>
<td><strong>Mental Health</strong></td>
<td></td>
</tr>
<tr>
<td>1. Select Nursing <strong>MH Adult Admission Note</strong> template (via Shared Template – Mental Health/Inpt – Nursing folder.</td>
<td></td>
</tr>
<tr>
<td>2. Enter/select <strong>Nursing PSYCH Adult Admission</strong> Progress Note title</td>
<td></td>
</tr>
<tr>
<td>3. Select and complete relevant fields for <strong>Pain Management Assessment</strong></td>
<td></td>
</tr>
</tbody>
</table>
4. Select and complete relevant fields for:
   * Screening (nutrition, abuse, suicide, etc.)
   * Patient Education
   * Discharge Planning

5. Click O.K. when finish.

Before Signing the Nursing MII Adult Admission Note

6. Select and complete the VANOD Initial Skin Risk template from Shared Templates under Nursing Inpatient

7. Select the VANOD Fall Risk Assessment template from Shared Template under Nursing Inpatient.

8. Click Finish.

9. Select and complete the appropriate Restraints template from Shared Templates under Nursing Inpatient/Restraints.

10. Select Finish.

11. Sign Note when complete.
<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How to document</strong></td>
<td></td>
</tr>
<tr>
<td>Care Plan</td>
<td></td>
</tr>
<tr>
<td>Under Notes Tab</td>
<td></td>
</tr>
<tr>
<td><strong>Mental Health</strong></td>
<td></td>
</tr>
<tr>
<td>Select Nursing MH Care Plan Note template (via Shared Template – Mental Health Inpt – Nursing folder)</td>
<td></td>
</tr>
<tr>
<td>1. Select and complete relevant fields.</td>
<td></td>
</tr>
<tr>
<td>2. Click OK when finished.</td>
<td></td>
</tr>
<tr>
<td>3. Sign Note.</td>
<td></td>
</tr>
<tr>
<td><strong>How to document</strong></td>
<td></td>
</tr>
<tr>
<td>Group Education</td>
<td></td>
</tr>
<tr>
<td>1. For <strong>daily Group Education</strong> Select Nursing MH Teaching Flow Sheet template (via Shared Template – Mental Health Inpatient Nursing folder)</td>
<td></td>
</tr>
<tr>
<td>2. Select and complete relevant fields.</td>
<td></td>
</tr>
<tr>
<td>3. Click OK.</td>
<td></td>
</tr>
<tr>
<td>4. Sign Note.</td>
<td></td>
</tr>
<tr>
<td><strong>ICU &amp; Med Surg</strong></td>
<td></td>
</tr>
<tr>
<td>How to document</td>
<td></td>
</tr>
<tr>
<td>• Education Assessment</td>
<td></td>
</tr>
<tr>
<td>• Pain Assessment</td>
<td></td>
</tr>
<tr>
<td>• Screenings – Alcohol Nutrition / Abuse / Suicide</td>
<td></td>
</tr>
<tr>
<td>• Patient Education</td>
<td></td>
</tr>
<tr>
<td>• Discharge Plan</td>
<td></td>
</tr>
<tr>
<td>• Care Plan</td>
<td></td>
</tr>
<tr>
<td>• VANOD Fall / Skin Risk</td>
<td></td>
</tr>
<tr>
<td>• Restraints</td>
<td></td>
</tr>
<tr>
<td>• Universal Protocol</td>
<td></td>
</tr>
<tr>
<td>1. Select New Note from Notes Tab</td>
<td></td>
</tr>
<tr>
<td>2. Select Nursing Admission Assessment</td>
<td></td>
</tr>
</tbody>
</table>
3. Select and complete relevant fields under **Pain and Educational Assessment** in the Nursing Admission Assessment note.

4. Select and complete relevant fields for **screening nutrition, abuse, suicide and alcohol** on the Nursing Admission Assessment note.

5. Select and complete relevant fields for **Patient Education** in Nursing Admission Assessment and Reassessment Notes as appropriate.
6. Select and complete relevant fields for **Discharge Plan** on the Nursing Admission Assessment and/or Reassessment Notes as appropriate.

7. Select and complete relevant fields under **Plan of Care** in the Nursing Admission Assessment note.

---

Before Signing the Nursing Admission Assessment Note

8. Select and complete the **VANOD Initial Skin Risk** template from Shared Templates under Nursing Inpatient

9. Select the **VANOD Fall Risk** Assessment template from Shared Template under Nursing Inpatient.

10. Click Finish when complete.

---

12. Select and complete the appropriate **Restraints** template from Shared Templates under Nursing Inpatient/Restraints.

11. Select and complete the Universal Protocol NON OR template from Shared Templates under Universal Protocol folder.
12. Select Universal Protocol for Invasive Procedures Outside OR TimeOut
13. Complete appropriate fields.
14. Sign Note when finished.

<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to Find / Determine Status of Consults and Review Plan While on Consults Tab —</td>
<td></td>
</tr>
<tr>
<td>1. Double Click to select desired Consult</td>
<td></td>
</tr>
<tr>
<td>The Status of a Consult is included after date. c = complete  ( dc = ) discontinued  ( p = ) pending  ( x = ) cancelled</td>
<td></td>
</tr>
<tr>
<td>Status is also included in the Consult</td>
<td></td>
</tr>
<tr>
<td>The Plan for the service is included in the Note for the service which can be viewed under Related Note</td>
<td></td>
</tr>
</tbody>
</table>
### How to get alert notification of results for labs, imaging, etc.:
1. While on Order Tab, select the Order you want to be alerted of results when available.
2. Select “Action” menu and then on “Alert when Results”.
3. Select person to receive the alert.
4. Select “OK”.

The “Alert Recipient” selected in step 3 will receive an alert notification on results.

### How to Find Lab Results
1. While on Labs Tab – Double Click to select desired desire results: 
   a. Most Recent
   b. Cumulative
2. Select Cumulative to view lab history/date.

Laboratory Results also available on Reports Tab under Health Summary.

### How to find the age, race and ethnicity of patient
1. Under Report Tab - Select to expand Health Summary.
2. Select Demographics and Appointment to view:
   a. Age/Sex
   b. Race/Ethnicity
<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
</table>
| **How to find Admitting date/time/diagnosis**  
1. Under Reports Tab – Select to expand Clinical Report  
2. Select to expand Visit/Admissions  
3. Select Adm/Discharge | ![Image of how to find admitting date/time/diagnosis] |
| **How to find location patient transferred from.**  
1. Steps 1 thru 3 above.  
2. Select Transfers  
3. View date/time of transfer per ward | ![Image of how to find location patient transferred from] |
| **How to find PRN Medication Effectiveness**  
1. Go to the Reports Tab,  
2. Select Clinical Reports,  
3. Select to expand Pharmacy  
4. Select Medication Administration History Report | ![Image of how to find PRN Medication Effectiveness] |
| **View Report including special instructions and history of pain score reported per follow-up post PRN medication administration.** | ![Image of view report including special instructions and history of pain score] |

Page 14 of 16 10-13-13
<table>
<thead>
<tr>
<th>Topic / Procedure</th>
<th>Expected Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMED Consent – How to obtain Patient Education Materials for printing and saving them to the chart for display under VistA Imaging Display.</td>
<td>From CPRS Tools Menu bar select IMED Consent</td>
</tr>
<tr>
<td>Login with VISTA Username and Password</td>
<td></td>
</tr>
<tr>
<td>Select Language and Education Topic</td>
<td>Select desired level of reading for education handout.</td>
</tr>
</tbody>
</table>
Select Print.
Select Save to Chart on right navigation panel.
Copy of training handout saved in Vista Imaging and note stating handout provided to patient automatically included in Progress Note.
Close IMED Consent.
Give IMED Consent Educational handout to Patient.

View documentation of IMED Consent education material provided to patient under signed notes.

See graphics of IMED Consent education material handout via Vista Imaging.
APPENDIX E: THE JOINT COMMISSION (TJC) SCAVENGER HUNT*

JC Scavenger Hunt – Electronic Health Record
(CPRS, VistA Imaging Display, Logicare, IMED Consent)

Without Answers

1. Race and ethnicity
2. Preferred language
3. Actual Standing Weight
4. Initial Nursing assessment including Screenings/ Risks: • Nutritional • Abuse • Suicide • Pain
5. Initial Nursing assessment documentation for Fall and Skin Risks.
6. History and physical
7. Advance Directive
8. Annual Learning needs assessment documentation
9. Substance Abuse Screening, include AUDC, Tobacco Use and Illegal Substance Use
10. Depression Screening Charting
11. Care Plan Charting
12. NIH Stroke Scale Assessment
13. Universal Protocol & Time Out - Non-OR Procedures
14. Restraint monitoring
15. Consult Status
16. Initial Discharge Planning Documentation
17. Inpatient Discharge / Transfer
18. Patient Education
19. Results for Procedures and Surgeries, (including informed consent, pre-anesthesia assessment, Pre-procedure checklist, timeout and post anesthesia assessment notes):
20. Belongings
21. Order Type Authentication, (i.e. Telephone, Verbal or Policy)
22. Medication Order Clarity (PRN Meds have an indication for use / Range Orders --- Glucose reading & matching MAR dose administered)
23. CPRS Health Records at a Non-VASNHS VA Site

JC Scavenger Hunt – Electronic Health Record - Answer Sheet
(CPRS, VistA Imaging Display, Logicare, IMED Consent)

1. Race and ethnicity = Open patient’s record in CPRS - Select/Click on Patient Name
2. Preferred language = Open patient’s record in CPRS - Cover Sheet Tab - view Clinical Reminder field
3. Actual Standing Weight = CPRS - Cover Sheet Tab via VS Window
4. Initial Nursing assessment including Screenings/ Risks: • Nutritional • Abuse • Suicide • Pain = CPRS – Notes Tab – Nursing Admission Assessment & MH Adult Admissions Assessment Progress
Notes

5. Initial Nursing assessment documentation for Fall and Skin Risks: CPRS – Notes Tab > Share Template > Nursing Inpatient > VANOD Fall Risk Assessment & VANOD Initial Skin Risk Assessment

6. History and physical – CPRS – Notes Tab – Acute Care His&Phy – Inpt. Progress Note

7. Advance Directive: CPRS – Cover Sheet Tab – Postings

8. Annual Learning needs assessment documentation – CPRS – Notes Tab - Clinical Reminder

9. Substance Abuse Screening, include AUDC, Tobacco Use and Illegal Substance Use – CPRS – Notes Tab - Clinical Reminder

10. Depression Screening Charting – CPRS – Notes Tab - Clinical Reminder

11. Care Plan Charting – CPRS – Notes Tab Progress Note or Share Template folder

12. NIH Stroke Scale Assessment – CPRS – Notes Tab Progress Note or Share Template folder

13. Universal Protocol & Time Out - Non-OR Procedures – CPRS – Notes Tab Progress Note or Share Template

14. Restraint monitoring – CPRS Nursing Notes (Restraints)

15. Consult Status – CPRS – Consult Tab – View each consult

16. Initial Discharge Planning Documentation – CPRS – Notes Tab – Nursing Admission Assessment & MH Adult Admissions Assessment Progress Notes

17. Inpatient Discharge / Transfer – CPRS – Notes Tab Progress Note or Share Template Nursing Folder

18. Patient Education – LOGICARE Teaching Tab, CPRS Notes Tab - Nursing Notes and IMED Consent. Vista Imaging Display to view IMED Consent Education CPRS Notes to view Logicare and CPRS documentation.

19. Results for Procedures and Surgeries, (including informed consent, pre-anesthesia assessment, Pre-procedure checklist, timeout and post anesthesia assessment notes): CPRS – Notes Tab: Progress Notes, Including ANESTHESIOLOGY Progress Notes and VistA Imaging Display for IMED Consent

20. Belongings - IMED Consent. Vista Imaging Display to view IMED Consent Education

21. Order Type Authentication, (i.e. Telephone, Verbal or Policy) Verbal Order - CPRS - ORDERS Tab Select Order to view Nature of Order for “Verbal”, Telephone or Policy”. See Electronic Signature for Name of person signing the order. Part of the ‘verbal telephone order authentication’ process (like reading the order back, etc), is documented in a progress note.

Order Details: 265333431

<table>
<thead>
<tr>
<th>Order Details: 265333431</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALC LAVENDER BLOOD 2P ONE-TIME LB 673:101</td>
</tr>
</tbody>
</table>

Activity:
09/21/2016 13:31 New Order entered by YIP, JOSPEH D (REGISTERED NURS)

Order Text: ALC LAVENDER BLOOD 2P ONE-TIME
Nature of Order: POLICY
Elect Signature: YIP, JOSPEH D (REGISTERED NURS) on 09/21/2016 13:31

Current Data:

21. Medication Order Clarity (PRN Meds have an indication for use / Range Orders --- Glucose reading & matching MAR dose administered) - CPRS ORDERS TAB: double click the order

22. Restraint orders, CPRS - ORDERS TAB: double click the order

23. CPRS Health Records at a Non- VASNHS VA Site, VistA Web and or CPRS Remote Data
CPRS Training Opportunity!

- Who: CPRS Training for 6 East RNs
- Date: Nov. 2016-variable hours
- Sign-up in TMS, Course Number XXXX, “Navigating CPRS”
- 1.5 Hour Training Session
- Location: 1C143/1C149
- Earn 1.5 Continuing Education Units

Improve Efficiency!

Learn Tips & Tricks!

Earn CEU Credit!
APPENDIX G: INVITATION EMAIL TO 6 EAST REGISTERED NURSES FROM
NURSE MANAGER

Dear 6 East Registered Nurses,
There is an opportunity for you to enhance your proficiency in navigating through CPRS. Classes will be offered this fall where we will review tips & tricks, review accessing remote VISTA applications, and review completion of clinical reminders and documentation.

The classes will be offered here on station (room 1C143 or 1C145) during your scheduled tour of duty.

At the end of the training, you will be asked to complete an online survey informing nursing leadership if your confidence in navigating through CPRS improved as a result of the training.

Those staff who participate will receive 1.5 hours of continuing education credits from the Nevada State Board of Nursing.
If you are interested, register through Talent Management System, course number 4199705, “Med Surg 6 E Nurses Quality Improvement”.

If you have questions, please contact me at: linda.devall-graham@va.gov or

Thank you,
As a result of attending CPRS Training, please indicate your current confidence level for the following: I can navigate through CPRS more efficiently

<table>
<thead>
<tr>
<th>Count</th>
<th>As a result of attending CPRS Training, please indicate your current confidence level for the following: I can navigate through CPRS more efficiently</th>
<th>Beginning confident</th>
<th>Somewhat confident</th>
<th>Confident</th>
<th>Very confident</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many years have you been in your current position?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1-3 years</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>7-10 years</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>More than 10 years</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>
Appendix I: Complete Clinical Reminders Documentation

As a result of attending CPRS training, please indicate your current confidence level for the following: I can complete clinical reminders documentation

Crosstabulation

<table>
<thead>
<tr>
<th>Count</th>
<th>As a result of attending CPRS training, please indicate your current confidence level for the following: I can complete clinical reminders documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beginning confident</td>
</tr>
<tr>
<td>How many years have you been in your current position?</td>
<td>Less than 1 year</td>
</tr>
<tr>
<td></td>
<td>1-3 years</td>
</tr>
<tr>
<td></td>
<td>4-6 years</td>
</tr>
<tr>
<td></td>
<td>7-10 years</td>
</tr>
<tr>
<td></td>
<td>More than 10 years</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
</tr>
</tbody>
</table>
## APPENDIX J: ACCESSING VISTA INFORMATION

As a result of attending CPRS training, please indicate your current confidence level for the following: I can access pertinent clinical information from VISTA interfaces (e.g. imaging, remote data, medication lists)

### Crosstabulation

<table>
<thead>
<tr>
<th>How many years have you been in your current position?</th>
<th>Less than 1 year</th>
<th>1-3 years</th>
<th>7-10 years</th>
<th>More than 10 years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning confident</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Somewhat confident</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Confident</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Very confident</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>15</td>
</tr>
</tbody>
</table>
APPENDIX K: VERBATIM RESPONSES TO NARRATIVE SURVEY QUESTIONS

1) If you anticipate applying the information to your job, please explain how you expect to use it:
   - Use in daily charting
   - Daily routine
   - Daily in my workplace
   - Handbook was most helpful as a reference
   - Looking up information in VISTA
   - Improve documentation
   - Check on several issues and concerns and contacting staff to assist
   - Electronic health record
   - N/A (two responses)

2) What was the most valuable part of the training:
   - Everything
   - Handouts and demonstrations
   - Handouts most helpful
   - Review of important points
   - One on one assistance for further explanation
   - Knowing who to contact for problems
   - In class training so we may answer questions
   - How to search for notes, logicare
   - All
   - N/A (one)
3) Please provide any suggestions for how the training could be improved.

- PowerPoint for expert user
- Check with the nurses if they have any specific questions
- More detailed and maybe a little more time
- Nothing, it was good!
- None
- N/A (three responses)
- More training would be helpful
REFERENCES


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Sockolow, P. S., Rogers, M., Bowles, K. H., Hand, K. E., & George, J. (2014). Challenges and facilitators to nurse use of a guideline-based nursing information system:
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http://www.va.gov/QUALITYOFCARE/measure-up/Strategic_Analytics_for_Improvement_and_Learning_SAIL.asp


CURRICULUM VITAE

Jennifer A. Strawn, MSN, RN, NE-BC
702-791-9009
jennifer.strawn@va.gov

EDUCATION

University of Nevada, Las Vegas, Las Vegas, Nevada 2017
DNP Nursing Program, Nurse Executive
DNP Project: “Maintaining Nurses’ Currency in Informatics”
Sigma Theta Tau

University of Michigan, School of Nursing, Ann Arbor, Michigan 2006
Master of Science in Nursing
Focus: Nursing Business and Health Systems/Administration track
Master’s thesis: "A Comparison of Nursing Communication Patterns Between a
Paper Focused and A Computer Focused Charting System"

Northern Illinois University, Dekalb, Illinois 1994
Bachelor of Science, Nursing
Honors: Magna Cum laude, Sigma Theta Tau

Kishwaukee Community College, Malta, Illinois 1992
Associates of Science

AWARDS/CERTIFICATION

Nurse Executive Certification, American Nurses Credentialing Center 2013-2018

Service Award Medal, John Gingrich, VHA Chief of Staff 2011

NNEI Scholarship, Veteran’s Administration 2004-2006,2016

Veterans Administration Health Benefits Scholarship 1993-1994

Kishwaukee Community Scholarship 1993-1994

WORK EXPERIENCE

VA Southern Nevada Healthcare System 2013-current
6900 North Pecos Rd., N. Las Vegas, NV 89086
Work Hours: 40 hours/week
Supervisor: William Caron, FACHE, Acting Director

Associate Director, Patient Care Services/Nurse Executive
The top executive within nursing and is a key member of the executive
leadership team of the organization, involved in strategic planning,
organizational assessment, and program development. The ADPCS/NE has the
authority and responsibility of establishing standards of nursing practice and
ensuring the continuous and timely availability of quality nursing services.
Chief spokesperson for organized nursing services and is the catalyst for the
integration and collaboration of nursing with other professional disciplines and
functional areas in the mutual achievement of patient-centered and organizational goals. Practice is of an executive nature, comprised of complex, leadership and administrative components, associated with critical health care issues and activities that influence the organizational mission, health care and policy.

Portland VA Medical Center, Portland Oregon  
3710 SW US Veterans Hospital Rd. Portland, OR 97219 2012-2013
Work Hours: 40 hours/week
Supervisor: Kathleen Chapman, MSN, RN, NEA-BC, FACHE, Deputy Director
Patient Care Services/Nurse Executive, 503-273-5001

HealthCare Executive Fellow-Associate Director of Patient Care Services/Nurse Executive

Participant in a yearlong fellowship training program to become an Associate Director of Patient Care Services/Nurse Executive (ADPCS/NE) in the Veteran’s Health Administration (VHA). Program requirements include completion of a 70 page learning portfolio modeled after the AONE Nurse Executive Core Competencies and VHA’s High Performance Development Model. After completion of the training period, passing the post test, completion of the Leadership lab exercises, Preceptor Approval and Recommendation, and VHA Preceptor Board approval, the participant will serve as an ADPCS/NE in a VHA hospital.

Veterans Administration Roseburg Healthcare System, Roseburg, OR 2007-2012
913 N.W., Garden Valley Blvd., Roseburg, OR 97471
Work Hours: 40 hours/week
Supervisor: Carol Bogedain, FACHE, Director, 541-440-1288

Chief of Quality Management

Manage the Quality Management service for the facility to insure the organization is meeting the external and internal regulatory and VHA benchmarks for safety and quality of care for Veterans. Manage the following programs: Risk Management, Continued Survey Readiness, Controlled Substance Inspection Program, Patient Advocacy Program, Quality Consultants, Infection Control, Methicillin-resistant Staphylococcus aureus Program, and Medical Center Memorandums. Coordinate management for the facility for VHA performance measures and monitors. Coordinate overall management and monitoring of the Executive Career Field plan for the facility.

Veterans Administration Ann Arbor Healthcare System, Ann Arbor, MI 2006-2007
2215 Fuller Rd., Ann Arbor, MI 48105
Work Hours: 40 hours/week
Supervisor: JoEllyn Smith, 734-769-7100, ext. 53772

Quality Care Coordinator

Utilization Review, manage utilization department database, team member Patient Flow Initiative, team leader for discharge appointments, team leader for Surgical Care Improvement Project performance measures. Lead, coordinate, and manage special projects for the hospital.

Veterans Administration Ann Arbor Healthcare System, Ann Arbor MI 2002-2006
2215 Fuller Rd., Ann Arbor, MI 48105
Work Hours: 40 hours/week
Supervisor: Aishe Deep-Haimour, 734-769-7100, ext. 53909
**Cardiology Department**
Work as a catheterization and electrophysiology laboratory nurse and in the Cardiac Observation Unit recovering patients.

**Legal Nurse Wound Care Consultant**
1236 Westview Way, Ann Arbor, MI 48103
Hours worked: 10 hours/week
Subcontractor
Review charts as a legal consultant regarding quality wound care provided

**Veterans Administration Ann Arbor Healthcare System, Ann Arbor, MI**
1998-2006

**Thoracic Intensive Care Nurse**
Recovered patients immediately post op from open heart surgery

**University of Michigan Hospital, Ann Arbor, MI**
1500 East Medical Center Dr., Ann Arbor, MI 48109
Hours worked: 8 hours/week

**Staff Nurse**
Provided nursing care on a 40-bed general medical-surgical floor.

**RELATED EXPERIENCE**

- **Nevada Student Nurses Association Mixer**
  Speaker - Closing remarks

- **National VA Care in the Community Nurse Executive Workgroup**
  Co-chair, Lead VHA ADPCS/NE in discussions and work focused on Care Coordination for Veterans as they move between VHA and the Community

- **VHA National NE Conference Planning**
  Committee Member, designed, planned and hosted conference for VA Nurse Executives

- **VHA Executive Candidate Development Program**
  Associate Director Patient Care Services/NE Mentor
  Provided yearlong mentorship for ECDP ADPCS/NE candidate

- **VISN Leadership Development**
  Mentor
  Provided yearlong Mentorship for new aspiring leaders

- **VA Southern Nevada Healthcare System Nurses Week**
  Catalyst for the Future: The Power of Nursing Opening
  Speaker & Panel Member

- **Nevada Career Institute**
  Speaker, presented Nursing Career Opportunities within VHA to LVN/LPN students
  Presented Professionalism in Nursing to LVN/LPN students as part of their curriculum
Portland VA Medical Center Nurse Executive Overview Course 2013

*Lecturer*, presented Leadership Theory, Human Resources, and Labor Management & Unions Courses for Nurse Managers to sit for Board Certification for Nurse Executives through American Nurses Credentialing Center.

Veterans Health Administration 2011

Certified Mentor

VHA Healthcare Leadership and Development Program 2011

Student

Participant in first class of the new leadership and development program.


**Chief, Quality Management**

Quality and performance facility scores improved from bottom quartile for complexity level 3 facilities to top quartile over the past 3 years while serving as the Quality Manager.

VA Roseburg Healthcare System-Patient Flow Program 2007-2010

**Co-Creator**

In collaboration with Associate Director Patient Care Services and the Deputy Nurse Executive Patient Care Services, we created and developed a Patient Flow Program for the VA Roseburg Healthcare System. As a result of this program, the organization has improved coordination of care with community partners and realized significant savings through process improvements. A poster was accepted for presentation at the VHA Clinical Executive conference.

VA Roseburg Healthcare System VISN 20 2009

**Team Member**

Developed VISN-wide Quality Improvement policy template based on VHA Directive 2009-043 Quality Management System for all VISN 20 facilities

University of Michigan School of Nursing, Nurse Research Study 2007

University of Michigan School of Nursing
400 North Ingalls, Ann Arbor, Michigan, 48109
Dr. Beatrice Kalisch, 734-

*Nurse Researcher*

Nurse Researcher on a study led by principal investigators Dr. Beatrice Kalisch and Michelle Aebersold, co-investigator on the study: “Staff Nurse Interruptions and Multitasking: Impact on Patient Safety” funded by a grant from Blue Cross Blue Shield of Michigan

Veterans Administration Healthcare System Magnet Committee 2005-2006

**Co-chair “Moving To Magnet” conference**

Veterans Administration Ann Arbor Healthcare System Nursing Standards Practice Board 2006-2007

**Board Member**

Peer review process to evaluate nurse applicants and incumbents against standardized criteria for performance and promotions

Veterans Administration Ann Arbor Healthcare System Nursing Research Committee 2005-2007

*Nursing Research*
Committee member, Participated, supported and promoted nursing research activities within the hospital.

*Veterans Administration Ann Arbor Healthcare System Cardiovascular Conference Speaker*

5th Annual Symposium Up-date in Cardiovascular Nursing, Title: "ABC’s of Heart Catheterization”

*Ann Arbor Healthcare System Critical Care/ Nursing Orientation Educator*

Critical Care Class Ann Arbor Healthcare System
Teach interventional cardiology to new intensive care nurses and for nursing orientation

PROFESSIONAL ORGANIZATIONS

American Organization of Nurse Executives
Member

Sigma Theta Tau International, Zeta Kappa-At-Large Chapter
Member