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Improving the Implementation of the Acute Care Nurse Practitioner (ACNP) Role:

Development of ACNP Role Implementation Guidelines

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Executive Summary

With the implementation of the Patient Protection and Affordable Care Act (PPACA) and the Value Based Purchasing (VBP) initiative, St. Joseph Health System has rolled out a strategic goal of "Perfect Care" to each patient with focus on meeting the VBP objectives and standardizing care within their acute care hospitals. To help bring "Perfect Care" to the patients, many of the individual hospitals within the health system have looked toward the implementation of the acute care nurse practitioner (ACNP) role in the hospital setting. There is a lack of guidelines, though, on how to implement the ACNP role. This has led to several barriers, which have created variation in practice and outcomes across the hospital settings. The aim of this project is to improve the implementation of the ACNP role in the hospitals within the St. Joseph Health System through the development of "ACNP Role Implementation Guidelines" for administrators and nurse practitioners by December 1, 2013.

After an initial literature review, SWOT analysis, and time spent with hospital administrators and advance practice nurses (APNs), guidelines were developed based on the PEPPA (participatory, evidence-based, patient-focused process for guiding the development, implementation, and evaluation of advance practice nursing) Framework. After an initial rollout of the guidelines to hospital administration and APNs in September and October of 2013, a toolkit with additional resources was also developed and successfully rolled out to the health system through CARENet in November of 2013. The rollout generated positive responses, but the SWOT analysis from the project also opened up doors for the standardization and implementation of the other APN roles within the health system. Future studies will need to look at the successful implementation of all APN roles within the hospitals and their role in meeting "Perfect Care" for the health system.

Introduction

Background

Quality, lowering costs, and the need for increased access to care are major concerns of hospitals and the health care industry. Within the 2010 Patient Protection and Affordable Care Act (PPACA), there are a number of policies to guide hospitals and caregivers to improve the quality of patient care and decrease health care costs (HHS Press Office, 2011). Following the signing of PPACA, the Department of Health and Human Services (HHS) in 2011 launched an initiative called the Value-Based Purchasing Program (VBP), which rewards hospitals based on the quality of care Medicare patients receive in the hospital and is predicted to decrease costs by over 50 million dollars in the next 10 years (U.S. Department of Health & Human Services, 2011; HHS Press Office, 2011). The VBP is forcing many hospitals to look at new models of care to improve outcomes and reimbursement for Medicare patients. One model that has been introduced into St. Joseph Health System to help improve outcomes is the application of the acute care nurse practitioner (ACNP) role to provide "Perfect Care" (Kleinpell, 2009; O'Grady & Brassard, 2011).

"Perfect Care" means the health system strives to never fail to deliver quality care to the patients and their families. Perfect care is defined by the health system as being safe, timely, evidence-based, efficient, equitable, patient/family centered, and sacred/spiritual in nature. With the implementation of PPACA by the Obama administration, the health system has focused on the implementation of VBP measures and the standardization of care within the ministry and the acute care hospitals. To help improve the quality of care patients receive, many of the individual hospitals within the health system have looked toward the implementation of the ACNP role in the hospital setting.

An ACNP is a master's prepared advance practice nurse (APN) who provides care to patients with complex healthcare conditions in acute care and hospital based settings. The primary responsibility of the ACNP is to direct the management and coordination of patient care. Other roles include quality initiatives, education, mentoring, and research (Hamric, Spross, & Hanson, 2009; National Panel for Acute Care Nurse Practitioner Competencies, 2004). According to Kleinpell's (2005) survey of ACNPs, the top five most frequently performed activities include: discussing patient's care with patients and a family member, ordering diagnostic testing and interpreting results, initiating consults, and initiating discharge planning. These performance activities place the ACNP in a unique position to greatly impact quality outcomes and patients' satisfaction.

Problem

Despite the improved quality and decreased costs the role can bring to the hospital, several barriers remain for the advancement of the role in the health system. According to Sangster-Gormley et al (2011), one of the most common reasons that the role does not succeed is the lack of understanding of what an ACNP can accomplish. Administrators must understand the ACNP role, competencies, capabilities, and scope of practice to avoid role confusion (Barton & Mashlan, 2011; Sangster-Gormley et al., 2011). To help guide the actual implementation of the role, administrators should use a systematic and evidenced-based approach (American Association of Critical Care Nurses (AACN), 2012; Bryant-Lukosius & DiCenso, 2004; Sangster-Gormley et al., 2011). Evidence-based guidelines have been shown to be capable of supporting improvements in healthcare (Field & Lohr, 1992, 1990). It is important to have and follow evidence-based guidelines to properly implement the ACNP role and improve the quality of care within the hospitals.

Purpose of Change

Currently the ACNPs within the hospitals of the St. Joseph Health System do not have a formal structure or guidelines to define their roles, standardize their practice, or oversee credentialing and privileging at the hospitals. This has led to several variations in practice and outcomes across the hospital settings. The aim of the project is to improve the implementation of the ACNP role in the hospitals within the St. Joseph Health System through the development of "ACNP Role Implementation Guidelines" for administrators and nurse practitioners by December 1, 2013. To help achieve the aim of the project four objectives were set:

1. Identify how ACNPs can help deliver "Perfect Care" within the St. Joseph Health System.
2. Determine the current state of the ACNP role in the St. Joseph Health System.
3. Determine current administrative needs and barriers to the implementation of the ACNP role.
4. Align each of the nine steps of the PEPPA Framework with the St. Joseph Health System mission, values, and organizational culture.

Each of these objectives will act as an individual element in the work breakdown structure (WBS) of the project.

The first objective was met through an extensive literature review on how the ACNP can improve the care and quality of patient care. "Perfect Care" means the health system strives to never fail to deliver quality care to the patients and families. Since the health system has placed a focus on providing "Perfect Care" with the VBP measures, the literature review focused on how the ACNP can improve care of the patients outlined in the VBP measures. To help further support the utilization of the nurse practitioner in the hospital setting, the American Association

of Critical Care Nurses (AACN) Synergy Model for Patient Care was used to show how the ACNP creates a synergistic relationship with the patient to improve outcomes.

The second and third objectives were met through two surveys from the Canadian Health Services Research Foundation (CHSRF) and Canadian Institute of Health Research (CIHR) APN Data Collection Toolkit. The "APN Activity Questionnaire" was administered to all the APNs working in the hospital setting who are employed by the health system. This was done because several of the ACNPs have other job titles and may not function purely as a nurse practitioner. The overall aim of this survey was to describe how nurse practitioners are being used in the hospitals within the health system. The second survey, "Developing and Evaluating the Effective Use of Advance Practice Nursing (APN) Roles", looks at what are the most important priorities for introducing the role, the challenges of implementing the role, and resources needed by administration to implement the role. This survey will help determine the current needs and barriers to implementing the role into the hospitals within the health system.

The last objective was to align the nine steps of the PEPPA Framework with the health system's organizational culture, mission, and values. To meet this objective, time was spent at the St. Joseph Health System office with the Executive Director of Improving Performance. During this time, the current organizational culture was identified and incorporated into the guidelines to meet the mission and values of the health system. This opportunity also allowed for participation in health system meetings with chief nursing officers (CNOs), nursing directors, and other key executive administrators at the hospitals to further discuss the implementation of the ACNP role and formally present the guidelines. At the St. Joseph Health System southern regional APN meeting the guidelines and needs of the ACNPs were reviewed.

Review of the Evidence

As the quality and costs of healthcare have become priorities, researchers have studied the effectiveness of an ACNP in improving outcomes in the hospital setting. A literature search was conducted using CINHL and PubMed databases using the keywords “acute care nurse practitioner”, “nurse practitioner”, “hospital”, “outcomes”, and “implementation”. The search was narrowed to specifically capture articles that looked at acute care nurse practitioner outcomes and implementation described in the VBP, such as length of stay and costs.

In 2011, two separate systematic literature reviews were published examining the impact of ACNP models on outcomes in the hospital environment. Fry (2011) looked at the impact of the nurse practitioners (NP) in the critical care environment in the international literature from 1980 to 2009. The review of 47 studies showed support for the adult nurse practitioner role in the hospital and demonstrated increased patient satisfaction and decreased hospital costs, length of stay, complications, and readmission rates. Newhouse et al (2011) looked at 37 studies from 1990 to 2008 in both the outpatient and hospital setting showing a high equivalent level of patient satisfaction, self-reported patient perception of health, functional status, hospital length of stay, and mortality when comparing NP to MD management. Outcomes with glucose control, lipid control, and blood pressure also showed the same high equivalence in care provided by the NP versus the MD. Overall both reviews show the NP can safely practice in the hospital setting as an ACNP and has an important role in improving the quality of patient care.

Over the last ten years, several individual studies have pointed to the ACNP as a valid resource for improving outcomes. Gracias et al (2008) examined the role of ACNPs in the use of clinical practice guidelines (CPGs) for deep vein thrombosis/pulmonary embolism (DVT/PE) prophylaxis, stress ulcer bleeding prophylaxis, and anemia to improve the quality of care in a

surgical critical care. They found a statistical significance (P value < 0.05) for increased CPGs compliance for all three measures by ACNPs with a "semi closed" model (critical care services and the ACNP determined care of patients) versus control with no ACNPs and a traditional mandatory model (several services determined care of patients). They also found compliance rates were similar between the models but the "Semi closed"/ACNP model had a statistically significant decrease in mortality (P=0.26) and gastrointestinal bleeding (P<0.0001). Overall this study sets a good statistical foundation for support of the ACNP model to help with the utilization of CPGs to improve outcomes.

Manning, Wendler, and Baur (2010) examined the role of the ACNP in compliance with the Center for Medicare and Medicaid (CMS) composite scores. The four key measures they evaluated included: left ventricular function assessment, smoking cessation advice/counseling, angiotensin converting enzyme inhibitor (ACE1) administration, and discharge instruction on heart failure provided to the patient. They compared data from before and after the introduction of an ACNP into the management of patients with heart failure at the hospital. After the introduction of an ACNP, composite quality scores went from 82.1% to 100% over a 4-year period. The addition of the ACNP to the team helped improve the collaboration between the physicians, nurses, and key stakeholders, as well as composite scores and care of the heart failure patient.

Besides process of care measures and clinical outcomes, patient satisfaction now contributes to hospital reimbursement. Hoffman, Tasota, and Scharfenberg (2003) in a retrospective study found that the ACNP and the physician spent almost the same amount of time in activities directly related to patient care (40% vs. 44%), but the ACNP spent significantly more time interacting with patients, and coordinating patient care (48% vs. 18%, P<. 001). A

more recent study by Sidani and Doran (2010) examined ACNP processes and their impact on patient satisfaction. In this exploratory, repeated-measures study, the authors surveyed over 320 patients. The change in outcomes reported by the patients who received care from an ACNP showed 63% of the patients had improvement in symptoms and functional status. Over 90% of the patients, though, were satisfied with the care they received from the ACNP. Increased interaction and coordination of care places the ACNP in a position to greatly impact patient satisfaction and quality of care.

Several studies have shown that the utilization of ACNPs can also help improve efficiency and decrease hospital costs. Kapu and Jones (2012) showed that after the addition of ACNPs to hospitalist and ICU teams for 3 months, length of stay (LOS) was reduced by 0.7 days, which saved the hospital $4,656 per case. Cowan et al (2006) also looked at the cost savings associated with LOS with the addition of an ACNP and showed the ACNP team decreased LOS by 1.01 days on the general medical ward saving the hospital over $1700 per patient. In another study by Meyer and Miers (2005), found that the ACNP-surgeon teams for a cardiac surgery program had a statistically significant (P = .039) lower mean LOS compared to the group of surgeons working alone. After accounting for the salaries of the 4 ACNPs, the estimated savings to the healthcare system was $3,388,015.20 per year. Lastly Russell, VorderBruegge, and Burns (2002) found similar cost-saving benefits from the impact of an ACNP on length of stay in two neurosurgical units with an overall financial savings for one-year with the ACNP of $2,467,328.00 and direct cost savings of $1,668,904.00. These studies illustrate how the ACNP is in a unique position to help improve quality while decreasing costs and improving revenue for the hospital.

Conceptual/Theoretical Framework

To help guide the actual implementation of the role, administrators should use a systematic and evidenced-based approach (Barton & Mashlan, 2011; Bryant-Lukosius & DiCenso, 2004; Sangeter-Gormley et al., 2011). The guidelines were developed to help overcome organizational constraints that hinder the implementation of the role. The American Association of Critical Care Nurses (AACN) Synergy Model for Patient Care and the PEPPA (participatory, evidence-based, patient-focused process for guiding the development, implementation, and evaluation of advance practice nursing) Framework were used to help develop these guidelines for the implementation of the ACNP role into the hospitals within the health system (Barton & Mashlan, 2011; Canadian Health Services Research Foundation (CHSRF) and Canadian Institute of Health Research (CIHR), 2013; Walsgrove & Fulbrook, 2005).

The Synergy Model for Patient Care was developed in the 1990's by the American Association of Critical Care Nurses (AACN) to show that nursing practice should be grounded in nurses meeting the needs of the patients to optimize patient outcomes. The central concept of the model is that the needs and characteristics of patients and their families influence and help drive the characteristics and competencies of the nurses. When the needs of the patient are matched with the nurse's characteristics and competencies then synergy occurs and outcomes are improved (American Association of Critical Care Nurses, 2013; Curley, 1998; Becker, Kaplow, Muenzen, & Hartigan, 2006).

The ACNP role was developed in the early 1990's when it was recognized that the needs of the patients in the hospital setting were not being met (Kleinpell, 2005). The training of the ACNP allows for a synergistic relationship with the patient to improve outcomes and patient

satisfaction (Becker et al., 2011; Kleinpell, 2005). The healthcare system needs to be aware of its own organizational barriers that may hinder the synergistic relationship between the patient and the ACNP. Some of the most common organizational barriers include: (1) lack of understanding of the ACNP role, (2) lack of collaboration and support with the medical team, and (3) organizational constraints such as policies and procedures that restrict practice (Barton & Mashlan, 2011; Walsgrove & Fulbrook, 2005).

To help with the successful implementation and to overcome organizational constraints, the PEPPA Framework was used (CHSRF and CIHR, 2013). The PEPPA Framework was developed in 2004 in Ontario, Canada by Denise Bryant-Lukosius and Alba Di Censo. The framework was built from the work of two other APN implementation models done by Spitzer (1978) and Dunn and Nicklin (1995). By combining these two frameworks, they created a guide to promote the optimal development, implementation, and evaluation of the APN role including the role of the ACNP (Bryant-Lukosius & DiCenso, 2004).

The PEPPA Framework gives administrators an organized process to properly implement the role, overcome barriers, and evaluate outcomes (Bryant-Lukosius et al., 2004; Bryant-Lukosius & DiCenso, 2004). The PEPPA Framework involves a nine-step process for the implementation and maintenance of the role (Appendix A). The evidence-based framework acts as a variance control in the development of guidelines for the health system. Each of the nine steps were developed to include the values, mission, and the strategic plan of the health system.

Starting with the initial step through step five, administrators are forced to analyze their current model of care and desired quality outcomes. Steps six and seven are focused on the planning and initiating the implementation of the role. The last two steps are evaluation and long term monitoring of the role (Bryant-Lukosius & DiCenso, 2004; McNamara et al., 2009). Each

of these steps are reviewed in detail in the guidelines. Key stakeholders and resources at each step are also reviewed to help guide administrators on the implementation of the ACNP role into the hospital setting.

Methods

Setting

St. Joseph Health System is an integrated non-profit Catholic healthcare system sponsored by the St. Joseph Health Ministry and the Sisters of St. Joseph of Orange. When they came to America they settled in Eureka, California and started a small community hospital to meet the needs of the individuals in the region. Today, they provide a full range of healthcare services in California, Texas, and New Mexico.

The Mission of the health system is to extend the healing ministry of Jesus by continually improving the health of people in the communities they serve through compassionate care and the promotion of health improvement and the creation of healthy communities. Each employee in the health system works under the four core guiding principles of Dignity, Service, Excellence, and Justice. To achieve their mission, St. Joseph Health System has rolled out a strategic goal of "Perfect Care" to each patient with a focus on meeting the VBP objectives and standardizing care within their acute care hospitals.

Currently there are over 113 employees working as nurse practitioners within the health system. There are even more individuals who have been educated as nurse practitioners but work in other jobs, such as an advance practice nurse, nurse specialist, educator, bedside nurse, or administrator. Currently, the St. Joseph Health System has not defined the NP role, or standardized practice, credentialing and privileges for NPs. This has led to variation in practice and outcomes across the hospital settings.

Planning the intervention

To evaluate the current state of the nurse practitioner role in the hospitals, a SWOT (strengths, weaknesses, opportunities, and threats) analysis was performed via two surveys. The surveys are part of the Advance Practice Nurse (APN) Data Collection Toolkit developed by the CHSRF and CIHR. The CHSRF and CIHR websites contain a compendium of peer-reviewed tools used in APN-related research. The instruments have been listed according to the PEPPA Framework. Both surveys, after initial approval by the institutional review board (IRB), were first administered at St. Joseph Hospital. Once approved by the health system IRB, they were rolled out to all the APNs and hospital administrators within the health system.

The first survey "APN Activity Questionnaire" was developed for use with nurse practitioners and clinical nurse specialists and allows determination of how APNs see their activities in the hospital (see Appendix B). This self-administered questionnaire evaluates five core competencies (Expert Clinical Practice, Education, Research, Consultation, Clinical Leadership) that guide APN practice. It is a self-administered questionnaire. The 40-question survey has been used in two previous studies and was derived from an extensive literature review and reviewed by experts for face validity (Elder & Bullough, 1990; Mayo et al., 2010). To help with the distribution of the survey, a list of ACNPS and hospital administrators in the health system was generated through a general database at the health system office. Even though the nurse practitioners were trained as ACNPs, each hospital gave them different job titles including the title of APN. Due to this, the survey was administered to all APNs who were employed by the health system. The overall aim of this survey was to describe how nurse practitioners were being used in the hospitals within the St. Joseph Health System.

The second survey "Developing and Evaluating the Effective Use of Advance Practice Nursing (APN) Roles" was developed originally for the current and planned implementation of CNSs and NPs in an acute care setting (see Appendix C). This survey looks at the most important priorities for introducing the role, the challenges of implementation, and the resources needed by administration to implement the role. It is a self-administered 3-point Likert Scale questionnaire that rates the least to most important aspects of the APN role. The 28 questions were derived from an extensive literature review and reviewed by experts for face validity (CHSRF and CIHR, 2013). The aim of this survey is to help administrators identify opportunities, threats, and barriers that may influence the implementation of the nurse practitioner role within the St. Joseph Health System.

Data from the studies was aggregated and analyzed using SPSS. Descriptive statistics and frequencies were calculated for both surveys. From the results of the two surveys, a SWOT analysis was developed (Appendix D) and used to develop the guidelines. In addition, a toolkit was developed to facilitate the implementation of ACNP in the health system.

Ethical issues

Contemporary nursing ethics looks at the ability of nurses to meet nursing goals (Grace, 2009). As the healthcare system undergoes continuous change, there is a need for ACNPs to meet the needs of the patients and create a synergistic relationship with the patient and healthcare team (Fry, 2002; Grace, 2009). Lack of understanding of the nurse practitioner role, lack of support within the medical team, and organizational constraints have all been identified as barriers to the implementation and practice of the ACNP role (Barton & Mashlan, 2011; Walsgrove & Fulbrook, 2005). As long as these barriers persist, the ACNPs cannot practice to

the full scope of their education and training and this limits their ability to meet the needs of their patient population.

Since the overall aim of the project is to improve the implementation of the ACNP role in the hospitals, the identification of barriers to practice is crucial. To determine these barriers a SWOT analysis was done via two surveys and distributed to administrators and APNs throughout the entire St. Joseph Health System. The surveys were deemed exempt both from the University of San Francisco, St. Joseph Hospital, and Health System IRBs. From the surveys weaknesses and threats that could be barriers to the implementation of the ACNP role were identified and used to develop the "ACNP Role Implementation Guidelines".

Funding

Studies show that the implementation of the ACNP role can help reduce costs and improve efficiency for the hospital. Organizational and systematic barriers can impact the implementation of the role and impact the efficiency and cost savings of the role. As hospital administrators are being forced to cut costs while improving the quality of patient care, the proper implementation of the ACNP role becomes important for the long-term survival of the hospitals within the St. Joseph Health System.

From a local market analysis of ACNP salaries, it is concluded that one ACNP full-time equivalent (FTE) will cost the hospital approximately $100,000. Benefits are currently 32% of the salary so the total cost for the FTE will be $132,000. This is a fixed Monday through Friday position so no replacement component is needed. In addition to salary, the hospital will be responsible for paying professional liability on a yearly basis, which is about $500 per year. The hospital will also pay licensure fees and certification fees adding an additional $1250 every three

years. The total personnel operating expenses will be $134,750 with a 3% increase in salary each additional year. Other initial operating expenses will be a computer, printer, and office supplies totaling $1500. For one ACNP it will cost the hospital approximately $136, 250.

The return on investment (ROI) from the hiring of one ACNP can be determined either from the direct billing of certain services or on quality improvement initiatives such as decreased LOS. Currently the hospitals do not want to bill for the ACNP services so other quality initiatives, such as reduced LOS, are required to support the implementation of an ACNP role. By decreasing LOS, the hospital will improve efficiency and increase bed capacity for additional revenue to be generated.

Four studies, previously reviewed, showed varying decreases in LOS from 0.7 to 1.9 days (Cowen et al., 2006; Kapu & Jones, 2012; Meyers & Miers, 2005; Russell et al., 2002). For the ROI, a conservative number of 0.7 days will be used to calculate the average savings per case. Since the majority of patients are discharged from a Medical floor, a daily room cost (including labor) of $3,559.00 will be used to calculate the ROI. If the ACNP can decrease the LOS by 0.7 days the costs savings per case would be $2,491.30 (0.7 x 3,559). For the hospital to see a return on their investment, the ACNP must discharge at least 55 patients ($136,250/$2491.30= 54.69).

The costs to develop the guidelines are minimal compared to the benefits they will provide to the health system. The costs are mainly indirect costs associated with the time required for administrators and nurse practitioners to provide input on the guideline development. However, this time spent could bring direct savings to the hospitals. A sample business plan will be included with the toolkit to help administrators provide an ROI for the hiring of an ACNP. The efficiency of the nurse practitioners may be further rewarded starting in FY 2015 by the Centers for Medicare and Medicaid (CMS) when efficiency scores for spending

on Medicare beneficiaries will be a measure included in the VBP score and reimbursement of the hospital.

Implementation

In order to meet the objectives and produce deliverables by December 1, 2013, a timeline for the project was established using a GANTT chart (Appendix E). The project actually started in January of 2012 with a literature review to help support the ACNP role in the hospital. As the project progressed, guidelines were developed with an ongoing literature review to help support the guideline development.

A SWOT analysis was completed through two surveys to determine the current state of nurse practitioners in the hospitals and the needs and barriers associated with role implementation. Due to the policies and practices within the hospitals in the health system, the survey was required to go through the IRB prior to the distribution. At the time of the initial attempt to distribute the surveys, each of the hospitals had their own IRB and required paperwork to be submitted to each hospital for approval. With the project time constraint, it was decided to distribute the survey first to St. Joseph Hospital in Orange because they had the most ACNPs. Starting in March 2013, the health system moved to a centralized IRB for all of the hospitals, no longer requiring individuals to submit to the individual hospital IRB. Due to this centralization, the two surveys were resubmitted to the health system IRB in May for approval and then released to the APNs and administers throughout the health system. This allowed for a more thorough SWOT analysis that could aid in the development of the guidelines for all of the hospitals within the health system.

Using the PEPPA Framework, guidelines titled "Acute Care Nurse Practitioner (ACNP) Role Implementation Guidelines" were developed based on the nine-step framework (Appendix F). Information from the literature review, SWOT analysis, and knowledge on the organizational culture, mission, and values of the health system were used to develop the guidelines for the implementation of the ACNP role into hospitals of the St. Joseph Health System by September 1, 2013. The guidelines were evaluated in September and October of 2013 by hospital administrators and APNs for feasibility and use within the health system. Finalization of the guidelines occurred in November of 2013. The guidelines, along with a toolkit with additional resources requested from administrators and APNs, were placed on CARENet, the intranet site of the health system (Appendix G).

Planning the study of the intervention

The full implementation of the ACNP role can take anywhere from six months to five years (Bryant-Lukosius & DiCenso, 2004). With the time constraints of the project, it was decided not to initially evaluate whether the guidelines helped improve the implementation of the role and outcomes. Instead it was decided to look at the feasibility and utilization of the guidelines. One of the largest risks to the project is the lack of adherence and utilization of the guidelines by administration for the implementation of the ACNP role. According to Bahtsevani, Willman, Stoltz, and Ostman (2010) guidelines are more likely to be implemented if they are evidence-based, reduce complexity of decision-making, and reflect current standards. Organizational culture also plays a key role in the implementation and adherence to guidelines (Abrahamson, Fox, & Doebbeling, 2012; Bahtsevani et al., 2010; Marchionni & Ritchie, 2008).

To help improve adherence and utilization, the guidelines are based on the evidence-based PEPPA Framework, as well as supported by current research from the literature review

developed for the project. A large portion of the project also focused on the SWOT analysis and identifying the barriers and needs of the administrators and ACNPs at the hospital for the guideline development. Through the SWOT analysis, time spent at the health system, quarterly administrative meetings, and regional APN meetings, a better understanding of the barriers, organizational culture, needs, and values was gained to help improve feasibility and utilization by administrators and the ACNPs.

Methods of evaluation

For the guidelines to have an impact on the implementation of the ACNP role in the hospitals within the health system, they must be evaluated prior to dissemination to the health system administrators (Marchionni & Ritchie, 2008). There were two evaluations of the guidelines done by hospital administration. The first one was done in September of 2013 and October of 2013 and evaluated the feasibility and usability of the guidelines by hospital administrators and ACNPs in the health system. This evaluation consisted of a questionnaire that contained six questions that the administrators and ACNPs answered to establish the usability of the guidelines (Appendix H). This survey also addresses additional resources that may be needed in the implementation of the ACNP role. This information allowed for the revision of the guidelines to meet the needs of the health system, as well as the development of a toolkit with additional resources (E.g. sample business plans, standardized procedures, job descriptions). The second evaluation of the guidelines will extend past the project deadline and will be done six months after the initial release of the guidelines to determine how many of the administrators and ACNPs used the guidelines and accessed the CARENet site.

Results

The foundation of the project, which is the development of the guidelines, was based on the results of the initial SWOT analysis performed from the two surveys distributed to the APNs and administrators in the health system. Guidelines titled "Acute Care Nurse Practitioner (ACNP) Role Implementation Guidelines" were developed based on the nine-step PEPPA framework. From the results of the SWOT analysis, a toolkit was developed for additional resources needed to help administrators and ACNPs implement the role.

The first survey "APN Activity Questionnaire" was sent out to 144 APNs working throughout the health system. Sixty-five of them completed the survey for a 45.1% response rate. Out of the sixty-five APNS, 81.5% of them were educated to be nurse practitioners, but only 60% of them were actually in a nurse practitioner role in the health system. This was identified as a weakness for the health system, because they were not utilizing the nurse practitioners to the full scope of their education and training.

The survey results were analyzed and frequencies determined for the thirty-six activities performed by APNs in the health system (Appendix I). Out of those thirty-six activities, the following six were performed greater than 90% of the time by the APNs:

1. Teaching Families
2. Evaluating Treatment
3. Teaching Patients
4. Making Referrals
5. Consulting to Support Staff
6. Attending Meetings

Education and consultation were the key things performed by the APNS. Except for evaluating treatment, expert clinical practice was not one of the top performance activities for nurse practitioners in the health system. This could possibly be contributed to the lack of knowledge of administrators on how to properly implement the role so the ACNP can practice to their full scope and education.

In the current healthcare environment, quality and efficiency are the main concerns of administrators. APNs should be leading the way and disseminating evidenced based research and practices through quality improvement projects (Kleinpell, 2009). The survey results showed that this was being done by only 46.2% of the nurse practitioners. Activities to generate revenue and show the cost effectiveness of nurse practitioners was also surprisingly low with only 47.7% and 24.2% respectively answering yes to these questions. These are opportunities for the health system and administrators to better utilize the ACNP role to improve the quality and efficiency of the hospitals.

The second survey was sent out to 150 hospital administrators throughout the health system with 54 respondents. During the time of the survey there was a realigning and regionalization of the health system so the response rate of 36% was actually higher than expected. The administrator disciplines included nursing managers, nursing executives, healthcare administrators, and medicine. Over 52% of the administrators stated they had worked in some professional capacity with an ACNP. Only 48% of the administrators stated they had plans to increase the APN role over the next 5 years and 33% were not sure. Of those individuals who thought they should increase the number of nurse practitioners, only 27.3% felt the increase would be in the inpatient world. This is a possible threat to the advancement of ACNPs in the hospitals, but with the large number of unsure responses to the increase of APNs, this statistic

leaves possible opportunities for the education and development of business plans for the employment of more ACNPs in the hospital setting.

The survey questions were divided up into three sections to determine what administrators thought were priorities for the overall APN role in the hospital setting, challenges for implementing the role, and needed resources for implementation of the APN role. Based on the administrator's ratings for APN role implementation, the top three questions were identified in each category that administrators felt were most important (Appendix J). The top three priorities for the APN role included:

1. Improving quality through expert clinical practice and direct patient care
2. Improving services through activities to promote interdisciplinary collaboration within the health care team
3. Improving care practices by leading evidence-based practice initiatives

In comparing the top priorities of administrators for the role to the top actual activities of the APNS, there was a wide variance in practice and expectations. Education and consultation activities were ranked highest with 90% of the APNs performing these activities. Clinical practice and direct patient care activities were only done by 70% to 80% of the APNs. As previously stated this could be related to the lack of knowledge on how to properly implement the role. This is a weakness for the APNs, but with administrators indicating this is a priority of the role, it provides an opportunity for the ACNPs to provide more direct patient care in the hospitals.

There was also a large discrepancy related to evidence-based practice initiatives. Administrators felt this was a priority, however NPs did not list this among their top activities. In the survey, 80% of APNs helped initiate improvements in quality, but only 46.2% of the

APNs actually lead or managed these projects. Two things could contribute to the lack of APNs leading these initiatives. The first is that administration lacks APNs at the table in the development and rollout of quality initiatives. The second is the current education of all APNs and the need for further education at the doctoral level. The doctoral graduate is expected to have an expanded knowledge base in eight essential areas that have been outlined and defined by the American Association of Colleges of Nursing (AACN). Included in these eight essential areas is advanced skills and knowledge in organizations and systems leadership for quality improvement and systems thinking (AACN, 2006). The lack of leadership is a weakness of the nurse practitioners in the health system, but is yet another opportunity for the ACNPs since administrators feel this is a priority for the role.

The second part of the survey asked about the challenges or barriers to the implementation of the APN role. The three biggest challenges identified were physician role acceptance, funding, and recruitment of qualified APNs. The non-acceptance of physicians can be a cultural attribute of the hospital, but also a result of lack of education on how the ACNPs can help in patient care (Barton & Mashlan, 2011; Walsgrove & Fulbrook, 2005). Utilization of the guidelines will enable the hospital to identify this barrier and involve physicians as stakeholders in the implementation of the role to help decrease this threat to the implementation of the role. To help in the funding of the ACNP, a literature review was created to identify how ACNPs could help in the efficiency of the hospital. Sample business plans were also created for administrators to show how the ACNP role could provide the hospital with a positive ROI. Lastly the guidelines will help in the recruitment of qualified ACNPs by identifying the appropriate qualifications and needs of the ACNPs. Resources were added to the toolkit to

outline the scope and standards, as well as educational requirements of the ACNPs to help administrators and recruiters identify the appropriate individual for the role.

The third part of the survey looked at the needed resources for the implementation of the APN role in the health system. The results of the survey showed a majority of administrators felt they needed clear APN role definitions. This may explain the large number of nurse practitioners working in roles with varying job titles. The administrators also identified other needs including tips for determining the need for APNs and guidelines for how to make decisions on introducing the APN role. The guidelines developed for the health system included both of these pieces, as well as provided examples on how to determine the need for ACNPs.

In discussions with health system administrators, there was a wide range of job descriptions for ACNPs and a need for standardization. Taking on this task for all of the hospitals in the health system was beyond the scope of this project. It was decided, though, to work with one hospital to standardize the ACNP job description and use this as a sample in the toolkit for the rest of the hospitals. Additional resources, including the scope and standards of the ACNP role and the APRN consensus model, were added to the toolkit to help administrators clearly define the roles.

With the provision of the guidelines as well as the addition of a toolkit, it was felt that administrators and the ACNPs at the hospitals would have enough information to improve the implementation of the ACNP role. Prior to implementing them into the health system, a meeting with hospital administrators and APNs occurred to review the results of the SWOT analysis and educate them on the need for these guidelines and toolkit. During this meeting an evaluation was done to help establish the usability and feasibility of the guidelines to ensure they would be utilized by the administrators and nurse practitioners within the health system.

The first meeting was with the hospital administrators. The guidelines and toolkit were presented to a small group of nursing administrators. The nursing directors were from 10 different hospitals in the health system. Their initial response to the presentation was one of enthusiasm. Besides the guidelines, they agreed a toolkit was needed The administrators felt the practice guidelines provided a clear definition and outline of the scope and standards and agreed that the literature review helped support the role. The administrators also felt they provided a clear outline of the barriers and liked the PEPPA Framework. They thought it provided a clear and organized process for the implementation of the ACNP role. Finally, they felt there was a need for additional tools to help with the scope of practice, job descriptions, sample business plans, privileging, credentialing, and standardized procedures. They wanted to establish a list of all the APNs in the health system to help support ACNP collaboration, and identify ACNP mentors for new ACNPs in the health system. From the recommendations of the nursing administrators, the guidelines and toolkit were updated and placed on the health system intranet website called CARENet.

The last question asked if they felt there was a need for additional tools to implement the ACNP role. From the responses, the administrators needed additional resources to help with the scope of practice, job descriptions, sample business plans, privileging, credentialing, and standardized procedures. The group also wanted to establish a list of all the APNs in the health system to help support ACNP collaboration and identify ACNP mentors for new ACNPs in the health system. From the recommendations of the nursing administrators, the guidelines and toolkit were updated and placed on the health system intranet website called CARENet.

The second meeting was with the southern region APNs. At this meeting, there were APNs from five of the hospitals in the health system located in Southern California, including St.

Jude, St. Mary, Mission, St. Joseph, and Hoag. Over 25 APNs were at the meeting, with 16 nurse practitioners in attendance and 9 clinical nurse specialists (CNS). At the meeting, the results of the SWOT analysis were presented along with reiteration of the need for the guidelines and toolkit for proper implementation of ACNPs. The CARENet site was also presented for feedback. Initial response was positive as the APNs agreed we needed help with role implementation in order to work to the full extent of our scope and education. The APNs were also asked to evaluate the guidelines. The evaluations were similar to the administrators, except for the discussion on barriers in the guidelines. It was felt additional barriers, such as patient's perception of ACNPs and nursing staff lack of understanding of the role should be included in the guidelines. Based upon these suggestions the guidelines were updated.

The APNs agreed with the administrators on the additional resources added to the toolkit on the CARENet site. The CARENet site was so well received by the APN group that they decided this site could be used as an overall APN resource for the health system. Besides a section on ACNPs, a section for clinical nurse specialists was added. From the feed back from both the administrators and APNs, it was decided to use the site as a communication tool for the APNs within the health system through the creation of a directory of all the APNs in the health system and a blog function to discuss practice issues between hospitals. Discussion among the APNs at the meeting, led to a consensus on a need for role clarification through standardizing the APN roles within the health system according to the APRN consensus model. A workgroup was formed and the APNs began meeting in November to help in the standardization of the roles within the health system.

The last meeting occurred in November, with a larger group of nursing administrators including CNOs and nursing directors from all over the health system. The group was given an

updated presentation on the results of the SWOT analysis and the need for guidelines and a toolkit. The CARENet site that was developed was presented along with all the resources available to the administrators for the implementation of the ACNP role. Attendance of CNOs at the meeting was low, due to conflicting meetings. Discussion and evaluations from this meeting stirred the need for standardization of all job descriptions, policies related to APNs, standardized procedures, and credentialing and privileging processes for the entire health system. It was decided that the presentation would be repeated in January at the CNO and health system executive meeting for further discussion on the APN role within the health system

Discussion

With the introductions of the Affordable Care Act (PPACA) and the Value Based Purchasing (VBP) initiative, quality, lowering costs and increased access to care have become the main goals in the reform of the healthcare industry. To help meet these goals, St. Joseph Health System has rolled out a strategic goal of "Perfect Care" to each patient with a focus on meeting the VBP objectives and standardizing care within their acute care hospitals. To help bring "Perfect Care" to the patients, many of the individual hospitals within the health system have looked toward the implementation of APNs and the ACNP role in the hospital setting. Within the health system, the ACNP role has encountered several barriers, which has lead to variation in practice and outcomes across the hospital settings.

The aim of the project was to improve the implementation of the ACNP role in the hospitals within the St. Joseph Health System through the development of an "ACNP Role Implementation Guidelines" for administrators and nurse practitioners. To achieve this aim a SWOT analysis was completed through two surveys of the APNs and administrators. The surveys identified several weaknesses and opportunities for the ACNP role. These results lead

not only to the development of the guidelines, but a toolkit of additional resources for administrators to help them with the implementation of the role.

During the rollout of the project, the health system was in the process of regionalizing and standardizing all the hospitals. Prior to this regionalization, the hospitals each worked in their own silos and had their own unique cultures and structures. With this regionalization, the IRB was regionalized and allowed for the distribution of the survey to all the APNs and administrators in the health system without having to go to each individual hospital. Even though the survey distribution was delayed, it allowed for a more thorough SWOT analysis of the APNs. The regionalization may have accounted for the smaller number of respondents from the administrators, but the number was still felt to be a good representation of the needs of the administrators within the health system. The regionalization also delayed the final rollout and evaluation of the guidelines due to changes in health system meetings. This regionalization, though, also provided the right environment for the administrators and APNs to collaborate and realize the need for the standardization of the ACNP as well as other APNs roles.

The SWOT analysis identified one large weakness: that ACNPs as well as other APNs did not have clear role definitions. This problem is not uncommon in many hospital settings and can often lead to increased barriers in implementing APNs roles (Hudspeth, 2011; Kleinpell, Hudspeth, Scordo, & Magdic 2011). With the creation of a email list for the distribution of the survey to the APNs in the health system, it was found that many of the nurse practitioners and other APNs had varying titles from nurse practitioner, clinical nurse specialist, nurse specialists, and advance practice nurses. This caused increased confusion on the APN role.

The administrators also identified the need for clear role definitions. This was looked upon as an opportunity for the health system. During meetings with administrators and APNs, it

was decided to standardize the job descriptions and roles of all APNs within the health system. A workgroup was formed to standardize the APN roles according to the APRN Consensus Model and PEPPA framework

To help in the standardization of the APN role, the health system intranet site CARENet was used. Initially the site was developed only for ACNPs, but with the identified opportunities for all APNs in the health system it was titled APN resources and an additional page for CNSs was developed. Nurse midwives and nurse anesthetists were not included since these roles are not currently being utilized within the health system. It was titled APN resources instead of APRN since most of administrators were not familiar with the new APRN model. The home page of the site, though, described the APN roles according to the APRN Consensus Model to help educate the administrators, as well as APNs who visit the site.

Prior to this site being developed communication between the APNs within the health system was limited. It was decided to use this site as a communication tool for all the APNs within the health system. Emails and contact information of the APNs at each hospital will be posted on the site. A blog is also being created so the APNs and administrators can communicate on such things as job issues and/or evidence based practice projects. The CARENet site also has the capability to be tracked in regards to the number and type of individuals who visit the site in the health system. This will be part of the six-month evaluation of the site and will be used as a way to determine if the site is being utilized to help with the implementation of future APNs. Future studies will look at the utilization of the guidelines by administrators and how the PEPPA Framework helped in the improvement of the implementation of the ACNP role. These findings could then be used in the development of guidelines for the implementation of other APN roles, such as the clinical nurse specialist.

Conclusion

The overall aim of the project was met and "ACNP Role Implementation Guidelines" were developed and disseminated to the administrators and ACNPs in the health system. The development of the guidelines and the results of the SWOT analysis generated additional discussions, which looked at additional needs of all the APNs. This led to additional dimensions to the project including the development of a toolkit for the ACNPs, standardization of all the APN roles according to the APRN Consensus Model, and development of APN resource pages on CARENet for the health system. The project opened the doors for standardization and improved implementation of all APN roles within the health system. With this standardization, clarity of APN role functions can be achieved so the ACNP as well as the other APNs can practice to their fullest scope. This can lead to the creation of a synergistic relationship with the needs of the patients and health system to achieve the goal of "Perfect Care".

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Appendix A

The PEPPA Framework

Step 1	**Define the population and describe the current model of care** Patient population is identified for central focus of process and quality improvement. At the same time, a study of the current model of care for this patient population is done.
Step 2	**Identify stakeholders and recruit participants** During this step, key stakeholders such as administrators, physicians, nurses, ancillary hospital staff, patients and families are identified that will be impacted by the new care model.
Step 3	**Determine the need for a new model of care** This step involves conducting a needs assessment to collect and/or generate information about the unmet patient needs and health care services required to meet these needs.
Step 4	**Identify priority problems and goals to improve the model of care** During this step, unmet health needs are identified and prioritized to determine outcome-based goals for the new care model.
Step 5	**Define the new model of care and APN role** Strategies and solutions for achieving established goals such as the implementation of the acute care nurse practitioner (ACNP) role are identified. The pros and cons for introducing an ACNP role compared to other nursing or health provider roles are considered. This step concludes with the development of a specific position description for the role within the new care model.
Step 6	**Plan implementation strategies** Planning for the implementation of the role begins with the identification of potential barriers and needs that could influence the implementation of the ACNP role. Key factors to address are stakeholder education on ACNP role, marketing, recruitment, hiring, role reporting structures, funding, policy development, timeline for role implementation and developing an evaluation plan for achievement of outcome-based goals by the ACNP.
Step 7	**Initiate APN role implementation plan** Initiation of the role implementation plan developed in Step 6 and hiring of an ACNP for the position. Full development and implementation of the ACNP role may take three to five years. During this time, changes are made to the role as well as the policies and procedures of the hospital to support the ACNP role development.
Step 8	**Evaluate the APN role and new model of care** Formative evaluations that systematically evaluate role structure, processes and outcomes are recommended to promote ongoing ACNP role development.
Step 9	**Long-term monitoring of the APN role and model of care** Long-term monitoring of established ACNP role allows for improved care based on new research and/or changes in the health care environment, patient needs, treatment practices, and maintenance of role during hard economic times.

Appendix B

APN Activity Questionnaire

Role: NP CNS APN Other _____

Training: NP CNS CNM CNA Other _____

Function: NP CNS CNM CNA Manager Other _____

Number of years as APN:_____years

Speciality:_____

1. Which of the following work activities do you carry out as part of your practice? (Check all that apply)

Expert Clinical Practice

Yes	No	N/A	
			Conducting psychosocial assessments
			Conducting physical exams
			Delivering physical care
			Ordering laboratory tests
			Prescribing medications
			Initiating treatment
			Managing treatment
			Evaluating treatment
			Practicing psychotherapy
			Performing patient rounds

Education

Yes	No	N/A	
			Teaching patients
			Teaching families
			Counseling patients/families
			Conducting support groups
			Teaching staff
			Teaching students
			Developing programs
			Orienting staff
			Conducting in-services
			Providing continuing education

Research

Yes	No	N/A	
☐	☐	☐	Managing quality improvement/assurance projects
☐	☐	☐	Disseminating research findings
☐	☐	☐	Conducting your own research
☐	☐	☐	Assisting others with their research

Consultation

Yes	No	N/A	
☐	☐	☐	Making referrals
☐	☐	☐	Consulting to support staff
☐	☐	☐	Consulting to other disciplines

Clinical Leadership

Yes	No	N/A	
☐	☐	☐	Initiating improvement of quality care
☐	☐	☐	Performing administrative/manager duties
☐	☐	☐	Publishing
☐	☐	☐	Performing product evaluation
☐	☐	☐	Conducting staff performance evaluations
☐	☐	☐	Participating on committees
☐	☐	☐	Attending meetings

Other Activities: (identify expert clinical nursing practice, education, research, consultation, or clinical leadership)

_____

2. There is increasing emphasis on demonstrating the cost effectiveness of advanced practice roles. Are you engaged in any such activities?
   ☐ **Yes** ☐ **No**

Please describe:

_____

3. Are you engaged in any activities that generate additional revenue for your agency?
   ☐ **Yes** ☐ **No**

4. If "yes" to number 3 above, in which of the following revenue generating activities are you involved?
   (Circle all that apply)
   a. Workshops
   b. Community health screening

c. Community education programs
d. Provisions of outpatient care
e. Home visits
f. Case management
g. Direct patient management
h. Consultation
i. Patient teaching
j. Contract/grant development
k. Counseling/psychotherapy
l. Other (please identify)_____

5. On average, what percent of time do you estimate that you are involved in direct patient care? _____%

Appendix C

Developing and Evaluating the Effective Use of APNs

1. Discipline:
   Nursing Manager
   □ Nursing Executive
   □ Other Nursing
   □ Medicine
   □ Healthcare Administration
   □ Other_____
2. Education Background:

   □ Associate Degree
   □ Bachelors Degree
   □ Masters Degree or above
   □ Other____
3. Identify the types of APN roles you have worked with in some professional capacity:

   □ Clinical Nurse Specialist (CNS) □ Acute Care Nurse Practitioner
   □ Primary Care Nurse Practitioner □ Clinical Nurse Specialist/Nurse Practitioner
   □ Have not worked with an APN
   □ Other _____
4. What do you feel are (would be) the benefits of the APN roles?

5. What plans does your organization have regarding the implementation and employment of APNs in the next 5 years?

   □ To increase the number of current positions
   □ To decrease the number of current positions
   □ No changes planned
   □ Not Sure
6. Where do you see the possible deployment of APN roles over the next 5 years?

   □ Outpatient Clinic
   □ Inpatient care
   □ Not Sure

7. What do you see the priorities for APN roles?

	Least Important	Important	Most Important
a. Improving quality through expert clinical practice and direct patient care	1	2	3
b. Decreasing wait times for treatment and discharge	1	2	3
c. Improving care practices through the education of patients	1	2	3
d. Improving care practices through education of nurses and other healthcare providers	1	2	3
e. Improving care practices by leading evidence-based practice initiatives	1	2	3
f. Improving care practices through participation in research	1	2	3
g. Improving services through activities to promote interdisciplinary collaboration within the health care team	1	2	3
h. Making referrals and consulting with support staff	1	2	3
i. Improving care practices through involvement in organizational committees and change initiatives	1	2	3
j. Other_____	1	2	3

If responded "Other" to question #7, please specify what "Other" refers to_____

8. What do you see the most difficult challenges for implementing the APN role?

	Least Important	Important	Most Important
a. Understanding role differences and selecting the most appropriate type of APN role	1	2	3
b. Physician role acceptance	1	2	3
c. Acceptance by non-physician healthcare providers	1	2	2
d. Funding	1	2	3
e. Recruitment of qualified APNs	1	2	3
f. Retention of qualified APNs	1	2	3
g. Integration of the role into the healthcare team	1	2	3

h. Establishing the most appropriate supervisory or reporting relationships	1	2	3
i. Other	1	2	3

If responded "Other" to question #8, please specify what "Other" refers to_____

9. From the list identified below, what types of resources would be the most helpful for you in developing and implementing a new APN role.

	Least Important	Important	Most Important
a. Clear role definitions	1	2	3
b. Generic job descriptions	1	2	3
c. Guidelines for hiring	1	2	3
d. Guidelines for retention	1	2	3
e. Tips on the characteristics of effective APNs	1	2	3
f. Tips for implementing role support strategies	1	2	3
g. Tips for determining a need for APNs	1	2	3
h. Guidelines for how to make decisions about introducing APN versus alternative health provider roles	1	2	3
i. Other	1	2	3

If responded "Other" to question #9, please specify what "Other" refers to_____

Appendix D

SWOT Analysis

Strengths	Weaknesses
• Current Healthcare Environment • St. Joseph Health focus on Perfect Care and quality improvement • Current number of nurse practitioners already employed in health system	• Current number of ACNPs not practicing in a nurse practitioner role • Lack of clear role definitions • Lack of cost effectiveness shown by ACNPs • Lack of utilization of ACNPs for expert clinical practice and direct patient care • Lack of utilization of ACNPs to help lead quality initiatives
Opportunities	**Threats**
• Utilization of ACNPs for expert clinical practice and direct patient care • Utilization of ACNPs to help improve costs and efficiency of hospitals • Increase in the number of ACNPs over the next 5 years through education on need of ACNPs • Utilization of ACNP to help lead quality initiatives • Development of Clear Role Definitions • Development of guidelines for tips on implementation of the ACNP role	• Administrators lack of acknowledgement of need for ACNPs in inpatient world in next 5 years • Lack of Physician role acceptance • Lack of Funding • Recruitment of qualified ACNPs

Appendix E

	2012												2013										
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Literature Search	Literature Review												Ongoing Literature Search										
Survey #1 "APN Activity Questionnaire "					IRB approval at St. Joseph Hospital, Orange				Rolled out at St. Joseph Hospital, Orange							IRB approval at St. Joseph Health System		Rolled out to Health System					
Survey #2 "Developing… ..Advance Practice Nursing (APN) Roles"												IRB approval at St. Joseph Hospital, Orange	Rolled out at St. Joseph Hospital, Orange			IRB approval at St. Joseph Health System		Study rolled out to Health System					
Development of Guidelines														Quarterly Quality and Performance Meeting	Quarterly APN Meeting			Quarterly APN Meeting					
Roll out and Evaluation of Guidelines																				Quarterly Quality and Performance Meeting	Quarterly APN Meeting		
Finalization of Guidelines																						Quarterly Quality and Performanc e Meeting	

Appendix F

Acute Care Nurse Practitioner (ACNP) Role Implementation: Guidelines for Hospital Administrators and Nurse Practitioners

Preface

Lowering medical costs, improving quality, and increased access to care are major concerns for hospitals and the current health care industry. This is forcing many hospitals to look at new care models to improve outcomes and reimbursement. One model being examined is the introduction of an acute care nurse practitioner (ACNP) into the hospital setting. The ACNP role can provide similar care to that of a physician, however the ACNP's education allows for the implementation of quality initiatives, standardization of care, and acute transition management. This can lead to improved compliance with quality initiatives, reduction in complications and readmissions, and efficiency.

Several barriers remain for the advancement of the role due to the improper implementation of the role by hospital administrators. These guidelines were developed to help both hospital administrators and ACNPs overcome these barriers and successfully implement the role into the hospital setting. To help overcome these barriers, these guidelines will review the current scope and practice of the ACNP role. This will be followed by a literature review on the ACNP's impact on quality and financial outcomes in the hospital. Finally, utilizing the PEPPA Framework, these guidelines will provide a systematic-evidenced based approach for administrators and ACNPs to develop, implement, and evaluate the role.

Table of Contents

Introduction

Purpose

The purpose of this guideline is to review the current literature on the Acute Care Nurse Practitioner role, outcomes, and the implementation of the nurse role into the hospital setting. The overall AIM of this document is to take the literature and create guidelines for administrators and nurse practitioners on how to properly implement the role into the hospital setting to meet the growing demands of our healthcare environment.

Scope of Problem

Quality, lowering costs, and the need for increased access to care are major concerns of hospitals and the health care industry. Within the 2010 Patient Protection and Affordable Care Act (PPACA), there are a number of policies to guide hospitals and caregivers to improve quality of patient care and decrease health care costs (HHS Press Office, 2011). Following the signing of PPACA, the Department of Health and Human Services (HHS) in 2011 launched an initiative called Hospital Value-Based Purchasing Program (VBP), which rewards hospitals based on the quality of care Medicare patients receive in the hospital. The VBP is predicted to decrease costs by over 50 million dollars in the next 10 years (U.S. Department of Health & Human Services, 2011; HHS Press Office, 2011). This is forcing many hospitals to look at new models of care so they can improve outcomes and reimbursement for their Medicare patients. One model that has been introduced to help improve outcomes is the application of the acute care nurse practitioner (ACNP) role into the hospital setting (Fry, 2011; Kleinpell, 2009; Newhouse et al., 2011).

An ACNP is a master's prepared advance practice nurse (APN) who provides care to patients with complex healthcare conditions in acute care and hospital based settings. The ACNP role was developed in the early 1990's when it was recognized that the needs of patients in the

hospital setting were not being met (Hamric, Spross, & Hanson, 2009). Based on education and training, an ACNP can provide care similar to that of a physician, however, the ACNP's education allows for the implementation of quality initiatives, standardization of care, and acute transition management. This in turn results in decreasing length of stay that can lead to compliance with quality initiatives, reduction in complications and readmissions, and improved costs (Hamric et al., 2009; National Panel for Acute Care Nurse Practitioner Competencies, 2004; Kleinpell, 2005).

Despite the improved quality and decreased costs the role can bring to the hospital, several barriers remain for the advancement of the role due to the improper implementation of the role by hospital administrators. One of the most common reasons that the role does not succeed is the lack of understanding of the ACNP and the Advance Practice Nurse (APN) role in the hospital setting (Sangster-Gormley et al., 2011). As the ACNP role in hospitals expands, administrators must understand the ACNP role, competencies, capabilities and scope of practice to avoid role confusion (Barton & Mashlan, 2011; Sangster-Gormley et al., 2011). To help guide the actual implementation of the role, administrators should use a systematic and evidenced-based approach through clinical practice guidelines that incorporate current literature and the ACNP standards and scope of practice (American Association of Critical Care Nurses (AACN), 2012; Bryant-Lukosius & DiCenso, 2004; Sangster-Gormley et al., 2011).

Role of the Acute Care Nurse Practitioner

Definition of Acute Care Nurse Practitioner (ACNP)

An ACNP is a registered nurse who has completed an accredited graduate or Doctoral–level education program (AACN, 2012; American Association of Colleges of Nursing, 2006). The education and training of the ACNP allows them to direct the management and coordination of patient care in acute care settings through medical history taking, performing advanced physical exams, ordering laboratory and diagnostic testing, using differential diagnosis to reach medical diagnosis, and performing procedures. Many ACNPs practice in acute care and hospital-based settings, such as emergency rooms, and intensive care settings. Their services, though, can span into homes, ambulatory care, urgent care, rehabilitative, and palliative care settings. Their patient-centered education allows the ACNP to provide care across the continuum while improving patient care coordination and outcomes (AACN, 2012; Hamric et al., 2009; Kleinpell, 2005).

Scope and Standards of ACNP Role

According to the American Association of Critical Care Nurses (AACN) *Scope and Standards for Acute Care Nurse Practitioner Practice* (2012), the goals and eight key components of the ACNP role are to stabilize and promote the health and wellness of the patients in the acute care setting. The eight key components and scope of the ACNP role include:

- Taking comprehensive histories, physical examinations, and other health screening activities
- Diagnosing, treating, and managing patients
- Ordering, performing, supervising, and interpreting laboratory and imaging studies
- Prescribing medications, durable medical equipment, and advanced therapeutic interventions

- Developing specialized psychomotor skills in the performance of procedures
- Initiating health promotion, disease prevention, health education, and counseling
- Collaborating and communicating with members of the interprofessional health care team
- Assessing, educating, and providing referrals for the patient, family, and caregiver
- Implementing transitions in the levels of care

Depending on their training and practice environment, the ACNP can do noninvasive and invasive interventions to help in the diagnosis and treatment of patients.

The ACNP practice is regulated through individual state licensure. The ACNP is licensed as a registered nurse and also licensed as an ACNP according to the state's nursing practice acts, regulations, and constraints. Currently these regulations and constraints vary from state to state. (AACN, 2012; American Association of Nurse Practitioners (AANP), 2012). An example of this is that California and Texas both require all nurse practitioners to have general supervision and delegation by a physician, but Texas requires all nurse practitioners to be certified and California does not require certification to be licensed within the state (AANP, 2012). Administrators need to check with their state's licensing boards to learn how the role of the ACNP is regulated in their state.

Regulation of the role also occurs through formal national certification and informal self-regulation. Formal certification can occur through organizations such as the American Nurses Credentialing Center (ANCC) and American Association of Critical Care Nurses (AACN) through completion of an appropriate program and a written examination (AACN, 2012; ANCC). Informal self-regulation occurs through an internal review by the individual ACNP through self-evaluation, continued education, and peer-review. Nursing organizations such as the American Nursing Association (ANA) and Hospital Credentialing organizations such as The

Joint Commission look at peer review and internal review of ACNP as a mandatory requirement to make sure the ACNP is meeting the necessary standards to provide safe and effective care (Flinter, 2012; The Joint Commission, 2013).

Role in the Hospital Setting

With the changing healthcare environment, patients in the acute care setting are older and presenting with multiple medical problems. Significant resources are needed to care for these patients in the hospital setting in order to improve the quality of care and meet their needs. A need has emerged for a new healthcare practitioner that can manage a patient's care across the continuum of care. In the 2010 report "In the Future of Nursing: Leading Change, Advancing Health", the Institute of Medicine (IOM) advocated for advance practice nurses, including ACNPs, to practice to their full potential scope. The training and education of the ACNP allows for a synergistic relationship with the patient across this continuum of care to help improve outcomes and patient satisfaction (Becker et al, 2011; Kleinpell, 2005).

Literature Review

As quality and costs of healthcare have become higher priorities, researchers have done more studies to show the effectiveness of an ACNP in improving outcomes in the hospital setting. In 2011, two separate systematic literature reviews were published examining the impact of ACNP models on outcomes in the hospital environment. Fry (2011) looked at the impact of the nurse practitioners (NP) in the critical care environment in the international literature from 1980 to 2009. The review of 47 studies showed support for the adult nurse practitioner role in the hospital and demonstrated increased patient satisfaction and decreased hospital costs, length of stay, complications, and readmission rates. Newhouse et al (2011) looked at 37 studies from 1990 to 2008 in both the outpatient and hospital setting showing a high equivalent level of patient satisfaction, self-reported patient perception of health, functional status, hospital length of stay, and mortality when comparing NP to MD management. Outcomes with glucose control, lipid control, and blood pressure also showed the same high equivalence in care provided by the NP versus the MD. Overall both reviews show the NP can safely practice in the hospital setting as an ACNP and has an important role in improving the quality of patient care.

Over the last ten years, several individual studies have pointed to the ACNP as a valid resource for improving outcomes. Gracias et al (2008) examined the role of ACNPs in the use of clinical practice guidelines (CPGs) for deep vein thrombosis/pulmonary embolism (DVT/PE) prophylaxis, stress ulcer bleeding prophylaxis, and anemia to improve the quality of care in a surgical critical care. They found a statistical significance (P value < 0.05) for increased CPGs compliance for all three measures by ACNPs with a “semiclosed” model (critical care services and the ACNP determined care of patients) versus control with no ACNPs and a traditional mandatory model (several services determined care of patients). They also found the

"Semiclosed"/ACNP had a statistically significant decrease in mortality (P=0.26) and gastrointestinal bleeding (P<0.0001). Overall this study sets a good statistical foundation for support of the ACNP model to help with the utilization of CPGs to improve outcomes.

Manning, Wendler, and Baur (2010) examined the role of the ACNP in compliance with the Center for Medicare and Medicaid (CMS) composite scores. The four key measures they evaluated included: left ventricular function assessment, smoking cessation advice/counseling, angiotensin converting enzyme inhibitor (ACE1) administration, and discharge instruction on heart failure provided to the patient. They compared data from before and after the introduction of an ACNP into the management of patients with heart failure at the hospital. After the introduction of an ACNP, composite quality scores went from 82.1% to 100% over a 4-year period. The addition of the ACNP to the team helped improve the collaboration between the physicians, nurses, and key stakeholders, as well as composite scores and care of the heart failure patient.

Besides process of care measures and clinical outcomes, patient satisfaction now contributes to hospital reimbursement. Hoffman et al (2003) in a retrospective study indicated the ACNP and the physician spent almost the same amount of time in activities directly related to patient care (40% vs. 44%), but the ACNP spent significantly more time interacting with patients, and coordinating patient care (48% vs. 18%, P<. 001). A more recent study by Sidani and Doran (2010) examined ACNP processes and their impact on patient satisfaction. In this exploratory, repeated-measures study, the authors surveyed over 320 patients. The change in outcomes reported by the patients who received care from an ACNP showed 63% of the patients had improvement in symptoms and functional status. Over 90% of the patients, though, were satisfied with the care they received from the ACNP compared to the physician. The increased

interaction and coordination of care places the ACNP in a position to greatly impact patient satisfaction and quality of care.

Several studies have shown that the utilization of ACNPs can also help improve efficiency and decrease costs to improve revenue for the hospital. Kapu and Jones (2012) showed that after the addition of ACNPs to hospitalist and ICU teams for 3 months, they were able to reduce length of stay (LOS) by 0.7 days, which saved the hospital $4,656 per case. Cowan et al (2006) also looked at the cost savings associated with LOS with the addition of an ACNP and showed the ACNP team decreased LOS by 1.01 days on the general medical ward saving the hospital over $1700 per patient. In another study by Meyer and Miers (2005), they found that the ACNP-surgeon teams for a cardiac surgery program had a statistically significant (P = .039) lower mean LOS compared to the group of surgeons working alone and after accounting for the salaries of the 4 ACNPs, the estimated savings to the healthcare system was $3,388,015.20 per year. These studies illustrate how the ACNP is in a unique position to help improve quality while decreasing costs and improving revenue for the hospital.

Implementation of ACNP

Barriers to Implementation

Even though studies show the implementation of the ACNP can help improve quality and patient outcomes, organizational and systematic barriers can impact the implementation of the role. The healthcare system needs to be aware of its own organizational barriers that may hinder the implementation of the ACNP role. Some of the most common organizational barriers include: (1) lack of understanding of the ACNP role, (2) lack of collaboration and support from the medical team, and (3) organizational constraints such as policies and procedures that restrict practice (Barton & Mashlan, 2011; Bryant-Lukosius, DiCenso, Brown, & Pinelli, 2004; Marchionni, & Ritchie, 2008; Walsgrove & Fulbrook, 2005).

One of the most common reasons that the role does not succeed is the lack of understanding of the ACNP and their Advance Practice Nurse (APN) role in the hospital (Sangster-Gormley et al., 2011). Prior to implementation, administrators must understand the ACNP role functions, competencies, capabilities and scope of practice to avoid role confusion (Sangeter-Gormley et al., 2011; Barton & Mashlan, 2011). In addition to the administrators, the patients, the nursing staff, and ancillary staff that are part of the multidisciplinary care team (dietary, respiratory, physical therapy, occupational therapy, case management) also need to understand the role of the ACNP. Standardizing job descriptions to include Scope and Standards from organizations such as the AACN or state licensure board can help minimize confusion about the role expectations and allow the ACNP to practice to his/her highest level of education (AACN, 2012; Bryant-Lukosius et al., 2004; Bryant-Lukosius & DiCenso, 2004). Discussion of how the ACNP is part of the multidisciplinary care team, as well as the education of the patients

on the role of the ACNP in their care can also help improve the practice and acceptance of the ACNP role.

Another barrier frequently identified is lack of acceptance and understanding by the medical staff. Prior to the development of the nurse practitioner role, physicians were the only ones who could make diagnoses, prescribe medications and order and perform diagnostic tests (Sangeter-Gormley et al., 2011; Barton & Mashlan, 2011). With the emergence of the nurse practitioner and ACNP role, physicians began to feel threatened by their nursing counterparts now being able to be patient providers and perform the same functions (Sangeter-Gormley et al., 2011). This problem can be compounded in many states by the necessity of the ACNP to have physician supervision and/or collaboration to practice (AANP, 2012). Administrative advocacy and physician champions to both support and promote the ACNP role are vital to its success (McNamara et al., 2009; Sangeter-Gormley et al., 2011).

A variety of other organizational constraints can also impede the implementation of the ACNP role (Barton & Mashlan, 2011). Obstacles are often related to the traditional care delivery model where physicians are the only ones under policy that can sign orders, order diagnostic tests, or initiate consults (Barton & Mashlan, 2011). Nursing managers, medical staff, and administrators need to be educated on the ACNP role and the policies that may need to be changed to accompany the service redesign. Policies and protocols in the medical staffing office need to be in place for the privileging and credentialing of the ACNP (Sangeter-Gormley et al., 2011). Peer review and evaluations need to be based on the unique role of the ACNP and not the traditional nursing or medical model (Sangeter-Gormley et al., 2011). Prior to implementing the ACNP role, administrators need to review their own unique organizational constraints and develop policies and procedures that will allow for the service redesign and the proper

implementation of the ACNP role (Barton & Mashlan, 2011; McNamara et al., 2009; Sangeter-Gormley et al., 2011).

PEPPA Framework

To help guide the actual implementation of the role, administrators should use a systematic and evidenced-based approach (Barton & Mashlan, 2011; Bryant-Lukosius & DiCenso, 2004; Sangeter-Gormley et al., 2011). To help with the successful implementation the PEPPA (participatory, evidence-based, patient-focused process for guiding the development, implementation, and evaluation of advance practice nursing) Framework will be used as a guideline to help the implementation of the role (Canadian Health Services Research Foundation (CHSRF) and Canadian Institute of Health Research (CIHR), 2013). The PEPPA Framework was developed in 2004 in Ontario, Canada by Denise Bryant-Lukosius and Alba Di Censo. The framework was built from the work of two other APN implementation models done by Spitzer (1978) and Dunn and Nicklin (1995). By combining these two frameworks, they created a guide to promote the optimal development, implementation, and evaluation of the APN role including the role of the ACNP (Bryant-Lukosius & DiCenso, 2004).

The PEPPA Framework gives administrators an organized process to properly implement the role, overcome barriers, and evaluate outcomes (Bryant-Lukosius et al., 2004; Bryant-Lukosius & DiCenso, 2004). The PEPPA Framework involves a nine-step process to the implementation and maintenance of the role. Starting with the initial step through step five, administrators are forced to analyze their current model of care and desired quality outcomes. Steps six and seven are focused on the planning and initiating of a plan for the implementation of the role. The last two steps are evaluation and long term monitoring of the role (Bryant-Lukosius

& DiCenso, 2004; McNamara et al., 2009). Each of these steps will be reviewed in detail and key stakeholders and resources at each step will be reviewed to help guide administrators on the implementation of the ACNP role into the hospital setting.

Steps	Description	Resources/Example
Step 1: **Define the population and describe the current model of care**	Patient population is identified for central focus of process and quality improvement.	**Needed Resources:** • Review current quality and performance data for population • Document current model of care **Example:** Cardiac Surgery program found to have low composite scores for value based purchasing initiatives and increased length of stay. These quality initiatives affect the patients from the preoperative to discharge and transition to home. Current model includes surgeons and physician assistants rounding on patients in between cases and usually late in evening or afternoon.
Step 2: **Identify stakeholders and recruit participants**	Identifying key stakeholders is critical in ensuring support for needed change. When the ACNP role is established in isolation, issues related to role clarity, role acceptance and barriers to role implementation are not addressed.	**Needed Resources:** During this step, key stakeholders such as administrators, physicians, nurses, ancillary hospital staff, patients, and families are identified that will be impacted by the new care model. **Example:** For cardiac surgery ACNP need to involve cardiac surgeons, cardiologists, medical staffing, CNO,

		CEO, CFO, nursing directors and managers, bedside nursing staff, operating room staff, ancillary staff, patients and families
Step 3: **Determine the need for a new model of care**	This step involves conducting a needs assessment to collect and/or generate information about the unmet patient needs and health care services required to meet these needs.	**Needed Resources:** • Needs Assessment/Gap Analysis Questions to ask: • What are patient and family health needs? • What are the context and consequences of these needs? • What factors contribute to these needs? • What are stakeholder perceptions of these needs? • What additional information about these needs is required? **Example:** Patients and families need someone to help follow through the continuum of care. Surgeons in and out of the operating room are unable to provide needed time for support and education of patients. Nursing staff does not have needed time due to increased patient load to provide education. Administration is upset that hospital is losing money due to lack of compliance with value based purchasing initiatives and increased length of stay. Patient satisfaction down from lack of support and education.

Step 4: **Identify priority problems and goals to improve the model of care**	During this step, unmet health needs are identified and prioritized to determine outcome-based goals for the new care model.	**Needed Resources**: • Needs Assessment/Gap Analysis • Develop Goals Questions to ask: • What does this new information mean? • What additional information is required? **Example:** Goal #1 Improve compliance with value based purchasing initiatives to 90% by one year after initial change implemented. Goal#2 Decrease length of stay for cardiac surgery patients by one patient day in the hospital after one year of initial change implementation. Goal #3 Improve overall patient satisfaction and HCAHP scores to the 50% percentile mark six month after change implementation and 75% by one year after initial change implementation
Step 5: **Define the new model of care and ACNP role**	Strategies and solutions for achieving established goals such as the implementation of the acute care nurse practitioner (ACNP) role are identified. The pros and cons for introducing an ACNP role compared to other nursing or health provider roles are considered. This step concludes specific position description for the role within the new care model.	**Needed Resources:** • NP Scope and Standards of Practice • APN Scope and Standards of Practice • Literature Review • Job Description including Scope and Standards of ACNP role Questions to ask: • What new care practices and care delivery strategies can be employed to achieve

		identified goals? • Is there evidence-based data to support these changes? • Would an ACNP role enhance ability to achieve goals for meeting patient health care needs? • How well does an ACNP role 'fit' within this new model of care? • What are the advantages and disadvantages of an ACNP role compared with alternative health care provider roles? **Example:** After an initial literature review, it is decided that the primary responsibility of the ACNP in the cardiac surgery program would be to direct the management and coordination of patient care from the preoperative period to their transition out of the hospital setting. The ACNP can see patients preoperatively and appropriately work the patients up with diagnostic testing and also provide education to both the patients and family to better help them prepare for the surgery, as well as their discharge home. With the surgeon in the operating room, the ACNP can assess, order diagnostic tests, perform procedures, transfer and discharge patients in a timely manner. This can help patient flow,

		increase compliance with value-based initiatives and LOS while increasing bed capacity for admitted patients leading to improved quality and additional revenue.
Step 6**: Plan implementation strategies**	Planning for the implementation of the role begins with the identification of potential barriers and needs that could influence the implementation of the ACNP role. A business plan is developed and key factors to address are stakeholder education on ACNP role, marketing, recruitment, hiring, role reporting structures, funding, policy development, timeline for role implementation and developing an evaluation plan for achievement of outcome-based goals by the ACNP.	**Needed Resources:** • SWOT analysis • Business plan with financials • Goals • Timeline/GANTT chart • Job description • Needed policy changes Questions to ask: • What goal-related outcomes are expected from the introduction of an ACNP role and changes to the model of care? • When will these outcomes be achieved? • What are the facilitators and barriers to ACNP role development and implementation? • What strategies are required to maximize role facilitators and minimize role barriers? • What resources and supports are required for role development and implementation? **Example:** After an initial SWOT analysis administration found that the strengths, weaknesses, opportunities and threats to the ACNP role included: Strengths- • Strong Cardiac

		Surgeon Support • Supportive Director and CNO Weaknesses- • Costs for ACNP FTE • Lack of Standardized Procedures for ACNP • Lack of ACNP job description Opportunities- • Help improve quality of cardiac surgery program • Decreased LOS • Improved patient satisfaction • Decreased readmissions • Pave the way for other ACNPs in the hospital Threats- • New Model of Care • Organizational Culture • Lack of understanding of role by other physicians, administration, and staff • New model of care • Conflicting expectations of hospital vs. Physicians SWOT analysis results were used to help develop a Business plan as well as plan for educational opportunities and plan for needed practice and policy

		changes for the new ACNP role.
Step 7: **Initiate APN role implementation plan**	Initiation of the role implementation plan developed in Step 6 and hiring of an ACNP for the position. Full development and implementation of the ACNP role takes time and may take three to five years. During this time, changes are made to the role as well as the policies and procedures of the hospital to support the ACNP role development.	**Needed Resources:** • Education of stakeholders and staff on role • Marketing • Job Description • Standardized procedures and/ or policies for ACNP practice • Medical staffing for privileging and credentialing **Example:** Actual implementation of the ACNP role is initiated for the cardiac surgery team. The hiring and privileging of the ACNP takes up to three months. During this period, education on the role is provided to staff, policies are finalized, and the ACNP is given desired outcomes and goals established in Step 4.
Step 8: **Evaluate the APN role and new model of care**	Formative evaluations that systematically evaluate role structure, processes and outcomes are recommended to promote ongoing ACNP role development.	**Needed Resources:** • Peer Review Process • Outcome Goals • Baseline data on outcomes prior to role implementation • Method for data abstraction and review of role • Financial impact of role **Example:** The initial implementation of the role can take 3-6 months at which there will be an initial evaluation of

		the role. The evaluation will be aligned with the desired goals including the number of process of care fallouts within the cardiac surgery program for value-based purchasing and the average LOS of the patients. In addition to LOS, the costs per case will be calculated with a focus on the savings from the decrease in LOS. These numbers will be tracked monthly and reported to administration on a quarterly basis at their quality meeting.
Step 9: **Long-term monitoring of the APN role and model of care**	Long-term monitoring of established ACNP role allows for improved care based on new research and/or changes in the health care environment, patient needs, treatment practices, and maintenance of role during hard economic times.	**Needed Resources:** • Updated research reviews of role and population of interest • Gap Analysis of role • Continually updated outcome goals • Financial impact of role **Example:** Long-term goals will be reviewed each year and adjusted to meet the long-term goals of the hospital's strategic plan and possible changes in Value-based purchasing and the needs of the cardiac surgery population.

(Bryant-Lukosius et al., 2004; Bryant-Lukosius & DiCenso, 2004; McNamara et al., 2009)

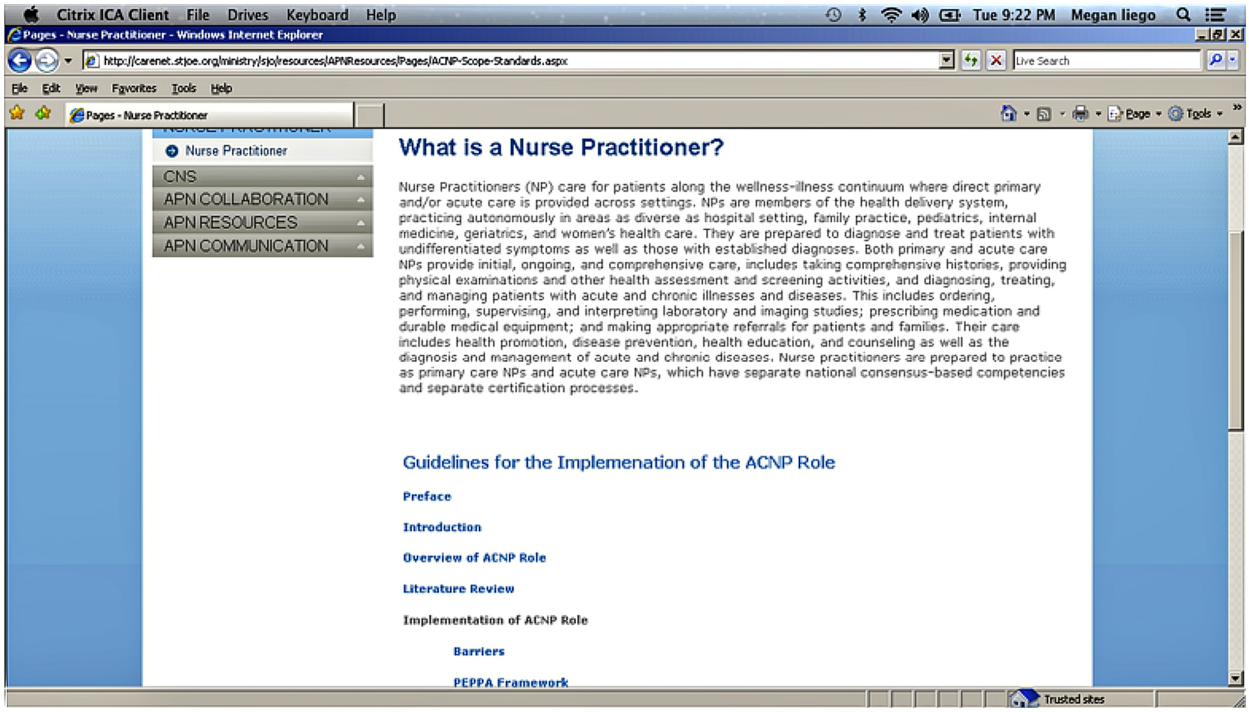
Appendix G

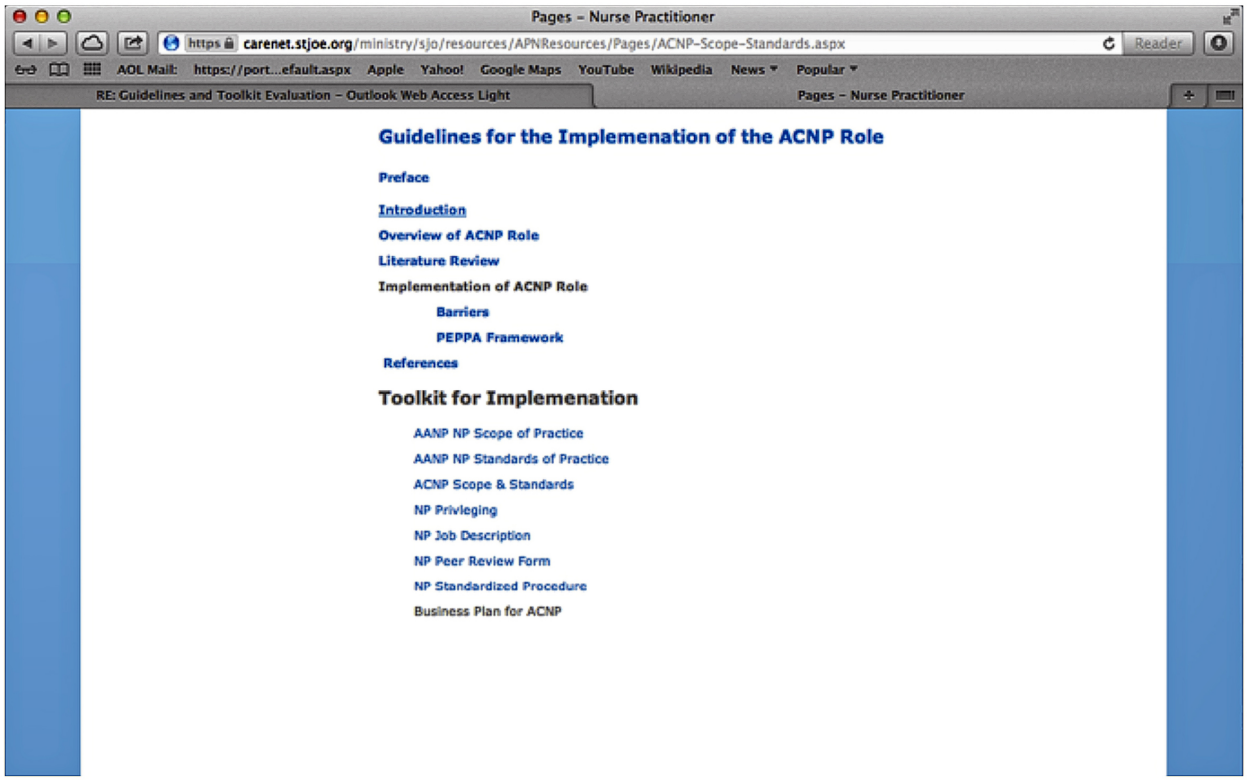
CARENet Site

Opening Page of Website

Nurse Practitioner Page

ACNP Role Implementation Guidelines and Toolkit





Appendix H

Evaluation of Practice Guidelines for Implementation of ACNP

1. In review of the Practice Guidelines do they provide a clear definition of the ACNP role?

Yes_____ No_____

If no please explain:

2. Do the practice guidelines provide readers with a clear outline of the scope and standards of the ACNP role?

Yes_____ No_____

If no please explain:

3. Does the literature review provide a strong base of evidence on how the ACNP role can help improve the quality of care and efficiency in the hospital setting?

Yes_____ No_____

If no please explain:

4. Do the practice guidelines provide a clear outline of the barriers that can affect the implementation of the ACNP role?

Yes_____No_____

If no please explain:

5. Does the PEPPA Framework provide a clear and organized process for administrators to follow for the implementation of the ACNP role?

Yes_____ No_____

If no please explain:

6. In addition to the practice guidelines what other resources would you like to be included in a toolkit to help with the implementation of the ACNP role (i.e. examples of standardized procedures, job descriptions, business plans, etc.)?

Appendix I

APN Activity Question Results

APN Questions	% Answered Yes
1. Teaching Families	95.4
2. Evaluating Treatment	92.3
3. Teaching Patients	92.3
4. Making Referrals	90.8
5. Consulting to Support Staff	90.8
6. Attending Meetings	90.8
7. Conducting Physical Exams	84.6
8. Managing Treatment	84.6
9. Consulting to other Disciplines	84.6
10. Ordering Laboratory Tests	83.1
11. Counseling Patients/Families	83.1
12. Teaching Staff	80.0
13. Initiating Improvements of Quality Care	80.0
14. Conducting Psychosocial Assessments	78.5
15. Prescribing Medications	76.9
16. Initiating Treatment	76.9
17. Teaching Students	76.9
18. Participation on Committees	72.3
19. Delivering Physical Care	70.8
20. Performing Patient Rounds	66.2
21. Assisting Others with their Research	56.9
22. Orientating Staff	50.8
23. Providing Continuing Education	49.2
24. Activities to Generate Revenue???	47.7
25. Disseminating Research Findings???	46.2
26. Managing Quality Improvement/Assurance Projects??	46.2
27. Conducting In-services	44.6
28. Developing Programs	43.1
29. Performing Administrator/Manager Duties	38.5
30. Performing Product Evaluation	32.3
31. Activities for Cost Effectiveness of Advanced Practice Roles??	24.2
32. Publishing	23.1
33. Practicing Psychotherapy	21.5
34. Conducting Staff Performance Evaluations	20.0
35. Conducting Support Groups	16.9
36. Conducting Own Research	16.9

Appendix J

Administrators Ratings for APN Role Implementation

Priorities for APN Roles	**% Answered Most Important**
Improving quality through expert clinical practice and direct patient care	63.6
Improving services through activities to promote interdisciplinary collaboration within the health care team	61.8
Improving care practices by leading evidence-based practice initiatives	60.0
Improving care practices through education of nurses and other healthcare providers	41.8
Decreasing wait times for treatment and discharge	40.0
Improving care practices through the education of patients	32.7
Making referrals and consulting with support staff	32.7
Improving care practices through involvement in organizational committees and change initiatives	25.5
Improving care practices through participation in research	3.6
Challenges for Implementing the APN Role	
Physician role acceptance	56.4
Funding	50.9
Recruitment of qualified APNs	50.9
Retention of qualified APNs	41.8
Integration of the role into the healthcare team	40.0
Establishing the most appropriate supervisory or reporting relationship	25.5
Understanding role differences and selecting the most appropriate type of APN role	23.6
Acceptance by non-physician healthcare providers	21.8
Resources Needed for Implementation of APN Roles	
Clear role definitions	67.3
Tips for determining need for APNs	34.5
Guidelines for how to make decisions about introducing APN versus alternative health provider roles	34.5
Tips for the characteristics of effective APNs	32.7
Tips for implementing role support strategies	29.1
Guidelines for retention	12.7
Generic job descriptions	1.8
Guidelines for hiring	0