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National Association of Clinical Nurse Specialists

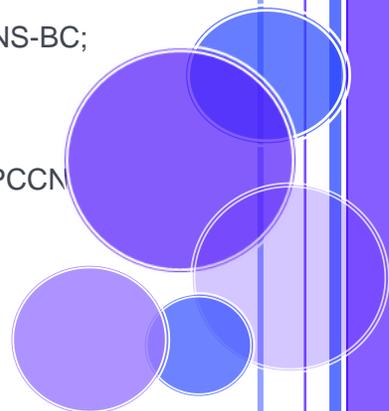
ADDRESSING THE NEEDS OF INDIVIDUALS WITH CHRONIC CONDITIONS

The Role of the Clinical Nurse Specialist

The clinical nurse specialist is uniquely prepared to manage patients with chronic conditions, lead collaboration within and across health care settings and serve as the bridge between disciplines. The overlapping spheres of influence affecting the patient, nursing practice and broader system are key elements of the strategic approach clinical nurse specialists use to effectively manage patients with chronic conditions and reduce costs for the health care system.

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EXECUTIVE SUMMARY

Clinical nurse specialists (CNSs) are one of the four types of advanced practice registered nurses (APRNs) and they have graduate preparation in nursing (master's or doctorate). Over 72,000 strong, CNSs are the second largest group of advanced practice registered nurses and the unique and advanced level competencies CNSs possess meet the increased needs of improving quality and reducing costs in our health care system. Their scope of practice can range from working in wellness to illness and chronic to acute care with a depth of expertise in a specific patient population. For example, CNSs may specialize in diabetes or cardiopulmonary care. Unlike other primary care providers who have expertise in a wide-range of primary care conditions, the CNS has in-depth knowledge in a specific clinical condition or patient population, and this expertise provides cost-effective, high-quality service to patients.

Chronic conditions are the most common, costly and preventable health issue in the United States and are a leading cause of death and disability (Ward, 2014).

The incidence of chronic conditions is increasing due to the rapid growth of the aging population and rise in controllable risk factors such as obesity and poor nutrition. According to the Administration on Aging report, *A Profile of Older Americans: 2016*, (HHS, Administration on Aging, 2016), the aged population comprised 14.9% of the American population in 2015, a number expected to rise to 21.7% of the population by 2040. The burden of chronic conditions is expected to increase global mortality from 36 million to 55 million by 2030 (WHO, 2013).

The cost of providing care for persons with chronic conditions poses enormous personal and economic burdens on individuals, families, health systems and society at large and accounts for 86% of all health care costs (Gerteis et al, 2014).

The management of a single chronic condition requires an understanding of the disease process and self-care actions from the patient as well as support from multiple health care providers, both personal and professional. The requirements for managing a chronic condition become more difficult when multiple conditions are concurrently present.

Changing population demographics, coupled with the prevalence of chronic conditions have resulted in increased demands for resources and access to providers. Strategies must be developed to support improving quality and reducing costs, all with improving patient outcomes. The role of the CNS is integral to this work (Jepsen, 2015).

Clinical nurse specialists are uniquely prepared to manage patients with chronic conditions and lead collaboration within and across health care settings. CNSs are versatile in their approach to managing patients with chronic conditions and well positioned to serve as the bridge between disciplines. Effective management of these patients presents opportunities for the CNS to contribute to reducing costs for the patient and the system.

CNSs have demonstrated economically favorable quality outcome measures, including fewer complications and readmissions, higher patient and staff satisfaction and reduced length of stay in a number of chronic conditions and in a community-based model of care (Minakakis, 2016; Cameron, 2015; Negley, Cordes, Evenson, & Shlad, 2015; Bryant-Lukosius, Carter, Reid, Donald, Martin-Misener, Kilpatrick & DiCenso, 2015; Balsdon & Wilkinson, 2014; Ulch & Schmidt, 2013; Leary, 2011).

Recommendations

Major opportunities exist for clinical nurse specialists to embrace the roles of primary coordinator and collaborator in chronic care management. CNSs are eligible for reimbursement for transitional care management services and for 20 years CNSs have been able to bill directly for services through the Centers for Medicare & Medicaid Services.

In 2015, the National Association of Clinical Nurse Specialists (NACNS) appointed a task force to explore the literature and make recommendations regarding the role of the CNS in the care and management of individuals with chronic and multiple chronic conditions.

Based on an extensive literature review and input from the expertise of CNSs across the United States and at national conference forums, the integration of competencies and a comprehensive examination of related definitions and concepts, the NACNS Chronic Conditions Task Force determined that the CNS role can be a major resource in the care and management of patients with chronic conditions.

The task force recommends that CNS competencies, curricula and continuing education should focus on the CNS as a licensed, independent, autonomous, reimbursable provider of health care services.

NACNS should also expand efforts to promote the CNS as a key APRN role in the care of patients with chronic conditions across all settings, by addressing neutral language in federal and state statutes where APRN scopes of practice are defined, promoting the CNS as a much-needed entity to propel initiatives that improve access to care, reduce costs and improve outcomes for patients with chronic conditions.

More research is needed to further and more clearly identify the impact of the CNS role on the constructs of the Institute for Healthcare Improvement's Triple Aim of cost, quality, and patient experience (Berwick, Nolan & Whittington, 2008); and delineate the CNS role from other care providers in chronic care management.

INTRODUCTION

With a commitment across the health care system to improve outcomes and contain costs, the improved management of chronic conditions has become a national priority for health care policy advocates, providers and health care systems. The NACNS Board of Directors appointed the Chronic Conditions Task Force to explore the role of the clinical nurse specialist in the care of patients with chronic conditions.

The task force was charged with identifying activities and resources that the CNS could use to provide leadership in the care of patients with chronic conditions across the continuum—from wellness to acute care and to include care environments in the home, ambulatory and acute care settings.

While the task force recognized that pediatric patients with chronic conditions will also need services, this scope of work emphasized care transitions in adult populations.

The purpose of this white paper is to summarize the work and findings of the task force, provide background on the role of the CNS in managing the care of adult patients with chronic conditions and deliver recommendations for the CNS role moving into the future.

Process

- The Chronic Conditions Task Force discussed and examined a broad-range of data to come to the recommendations provided in this document. The task force:
 - Conducted a comprehensive literature review;
 - considered the clinical expertise of task force and NACNS members;
 - reviewed prior work NACNS published on transitions of care and care coordination; and
 - evaluated how the CNS Core Competencies, spheres of influence and scope of practice from wellness through acute care relates to the care of patients with chronic conditions (National CNS Competency Task Force, 2010).

The task force identified concepts and key terms relevant to the care of patients with chronic conditions. In this white paper, the task force uses the term “chronic conditions” to be consistent with the literature. The task force found the phrase “chronic conditions” gained recent popularity as an umbrella term used by consumers, health care agencies, and academia (Kralik et al., 2010). Other concepts and key terms used to guide this work include: co-morbid conditions, population health, CNS competencies related to care models, practice guidelines and expected outcomes, care reimbursement, prevention, care settings and wellness.

Wellness is a core concept. The University of Illinois at Urbana-Champaign’s [definition of wellness](#) most closely correlates to nursing’s holistic approach to care. It is based on the World Health Organization’s (WHO) definition of wellness and expanded to address the life span:

“Wellness is a state of optimal well-being that is oriented toward maximizing an individual’s potential. This is a life-long process of moving towards enhancing your physical, intellectual, emotional, social, spiritual, and environmental well-being.”

The literature search yielded a diverse and robust body of information pertaining to clinical nurse specialists and chronic condition management. The task force identified trends and commonalities with implications for the CNS role and created an extended bibliography based on the reviewed articles (Appendix A).

During both the 2015 and 2016 NACNS Annual Conference, the task force hosted forums to elicit feedback from members. Clinical nurse specialists from across the country shared valuable information regarding programs, issues, and needs for managing chronic conditions as well as barriers and challenges CNSs face when engaging in chronic conditions management. A summary of the comments from the 2015 and 2016 forums are included in this white paper (Appendix B and C).

BACKGROUND

Incidence

Chronic conditions are the most common, costly, and preventable health issues in the United States and are a leading cause of death and disability (Ward, 2014). Heart disease and cancer account for 48% of chronic conditions and arthritis is the leading cause of disability in the U.S. (CDC, 2013). As of 2012, one in four adults had two or more chronic conditions (CDC, 2013; Ward, 2014). The incidence of chronic conditions is increasing due to the rapid growth of the aging population and rise in controllable risk factors such as obesity and poor nutrition.

According to the Administration on Aging's *A Profile of Older Americans: 2016*, there were 47.8 million older people aged 65 years or older in 2015, the last year data was available, representing 14.9% of the American population (HHS, Administration on Aging, 2016). It is estimated that this segment of the population will increase to 21.7% by 2040 and by 2060 there will be 98 million older Americans. *A Profile of Older Americans: 2016* states:

“Most older persons have at least one chronic condition and many have multiple conditions. In 2015, the most frequently occurring diagnosed conditions among older persons were: arthritis (53%), all types of heart disease (35%), any cancer (32%), diabetes (22% in 2011-2014), and hypertension (72% among men age 75 and over, 80% of women age 75 and over in 2011-2014.)”

Approximately half of all currently required health care is estimated to be due to chronic conditions (Ward et. al., 2013, Senate Committee on Finance 2015). Mortality in this population is high. In 2010, seven out of the top ten causes of deaths were due to a chronic condition (CDC, 2013). The burden of chronic conditions is expected to increase global mortality from 36 million to 55 million by 2030 (WHO, 2013).

Many factors contribute to the complexity of chronic condition management. The definition of chronic conditions includes uncertain etiology of physical and/or psychological impairment, multiple risk factors, a prolonged course of care with functional impairment and disability (HHS, 2010). McKenna and Collins (2010) add that chronic conditions are generally characterized by a long latency period, noncontagious origin, and incurability. There are physical and lifestyle changes that can exacerbate or impact body functions. Many chronic conditions have no physical symptoms; the evidence is in the impairment the individual's day-to-day experiences.

The management of a single chronic condition requires an understanding of the disease process and self-care actions from the patient as well as support from multiple health care providers. Managing a chronic condition becomes more difficult when multiple conditions are present. Clinical practice guidelines and pay for performance initiatives typically address single health conditions (Boyd et al, 2005) which adds to the complexity of managing multiple chronic conditions. Patients and families find

themselves taxed by the burden of following a highly sophisticated and frequently changing plan of care and multiple medication and care regimens. Moreover, the functional burden and quality of life issues patients with chronic conditions face present further barriers to self-management, especially for those with co-morbid conditions.

Persons with chronic conditions, especially those with co-morbidities, have been identified as a group that often experience complex needs beyond the requirements of physical care. They are often high users of the health care system and commonly referred to as those involving complex care.

The term “complex care” is appearing more frequently in the literature and refers to models that address the social determinants of health as part of the “medical” treatment of people. It is a population health approach that addresses “complex needs” which go beyond the medical—an approach for which nurses have long advocated and which is compatible with the CNS role. The Institute for Healthcare Improvement (IHI) developed a web resource tool, [The Playbook: Better Care for People with Complex Needs](#), which identifies promising approaches for treating people with complex health and social needs, highlights challenges facing adults with complex needs and provides promising care models, policies and more to help improve care for this population. It is intended for use with three groups identified as having complex needs, including those with multiple chronic conditions. [The Future of Nursing: Campaign for Action website](#) also highlights a complex care model to improve care for “high utilizers.”

A practitioner with the requisite skill set for care coordination is the key to managing patients with complex needs. Clinical nurse specialists have this skill set and the CNS role in care coordination is described and supported in a 2013 NACNS position statement discussed later in this paper. The task force believes that the role of the CNS in promoting population health and addressing complex needs using complex care models for vulnerable populations including patients with multiple chronic conditions should be addressed by NACNS in the future.

Cost, Quality and Reimbursement

The cost of providing care for persons with chronic conditions poses enormous economic burdens on individuals, families, health systems and society at large. The economic consequence of caring for patients with chronic conditions accounts for 86% of all health care costs (Gerteis et al, 2014).

Issues of payment and reimbursement are also a factor. The U.S. [spends twice as much on health care delivery as other industrialized nations and often ranks behind most countries on measures of health outcomes, quality and efficiency](#) (Shinkman, 2015). The rising costs of and increased demand for health care, public awareness of patient safety issues and the uncertainty about the future of health care reform are converging forces creating a chaotic transition from a reimbursement model based on volume of service to value based service linked to quality of care—value based purchasing (VBP). CMS is championing reimbursement based on value to improve the quality of health care

services while reducing the need for emergency department visits and unnecessary hospital readmissions (Tompkins, Higgins, & Ritter, 2009). Hospitals meeting the acceptable benchmarks receive incentives while those who miss the defined measures of success incur penalties. Congress authorized Inpatient Hospital Value-Based Purchasing in the *Affordable Care Act*, and payments from CMS became effective in October of 2012, reinforcing the IHI Triple Aim (Berwick et al, 2008) focusing on better health, better care and lowered costs.

Rather than continue to reward volume regardless of quality of care delivered and help drive the health care system towards VBP, the Department of Health and Human Services (DHHS) set a goal of 30% of Medicare payments will be in alternative payment models (those built on fee-for-service architecture and population-based payment) by the end of 2016 and 50% by the end of 2018. DHHS aims to have 85% of Medicare fee-for-service payments in VBP by 2016 and 90% by 2018 (CMS, January 2015). By 2014, an estimated 20% of Medicare reimbursements had shifted to value-based model of payment directly linking provider reimbursement to the health and well-being of their patients.

The advent of VBP, including potential penalties for an inability to meet specific quality measures, presented hospitals with new challenges but created opportunities for clinical nurse specialists. CNSs were included as eligible professionals to receive bonus payments from the Medicare Physician Quality Reporting Initiative under *The Tax Relief and Health Care Act of 2006* (Kurtzman, & Johnson, 2008). The [National Quality Forum](#) (NQF), a membership-based nonprofit organization, was created to develop and implement a national strategy for health care quality measurement and reporting on patient outcomes, workforce productivity – including nursing quality – and health care costs. The NQF has expanded measurement of quality of services to six domains including care coordination, chronic care, safety, patient outcomes, population health and cost reduction—all essential components of the role and responsibilities of the CNS (Vanlare & Conway, 2012).

Providing quality service and reimbursing direct services align with meeting CMS' expected measures and present the perfect opportunity to demonstrate the value of the CNS (Delp et al., 2016). In 2015, CMS announced a new “non-visit payment” for services in chronic care management for services like care coordination, patient communication, medication refills and remote care by telephone. CNSs are among the non-physician providers approved for billing of “non-visit payment” services. With the intricacies surrounding billing, payment and reimbursement, CMS has created [Connected Care](#), an educational campaign offering a variety of resources for health care professionals working with patients living with chronic conditions. This website includes resource documents that promote and support the management of chronic conditions by eligible practitioners including the CNS.

LEGISLATIVE/POLICY IMPLICATIONS

While federal regulations indicate that the CNS is in an ideal position to provide services to manage patients with chronic conditions, obstacles prevent clinical nurse specialists from taking full advantage. CNSs can only participate in direct reimbursement to the extent that state laws support full practice authority through licensure and scope of practice for CNSs (DHHS, 2015). If only one provider per month may bill for these services, physicians are questioning who this provider will be and advocating for the physician (Edwards & Landon, 2014).

The requirements for licensure, core competencies and scope of practice serve as the foundation for the CNS role in the direct care, management, and coordination of the chronic care patient populations. There has been a significant evolution in the licensure, accreditation, certification and education of all APRNs in the last 10-15 years. The nursing organizations, identifying the lack of consistency in APRN practice across state lines undertook a process to establish recommendations for preparation and licensure of all APRNs, including the CNS.

To address issues associated with inconsistencies in education and practice across state lines, the APRN Advisory Group of the National Council of State Boards of Nursing (NCSBN) in company with the APRN Consensus Work Group formed a Joint Dialogue Group to discuss these issues (Consensus Model for APRN Regulation: Licensure, Accreditation, Certification & Education, 2008). This Joint Dialogue Group developed the [Consensus Model for APRN Regulation: Licensure, Accreditation, Certification & Education \(2008\)](#) to recognize state licensure of advanced nursing practice based on standardized curricular requirements and newly created population-based certifications. NACNS publicly supports the Consensus Model for APRN Regulation (2008) and therefore endorses the licensing, accreditation, certification and education requirements recommended for APRN practice in the Consensus Model.

In the Consensus Model for APRN Regulation (2008), the CNS is recognized as having the unique role of integrating care across the continuum through three spheres of influence: patient, nurse, system. The primary goal of the CNS is identified as “continuous improvement of patient outcomes and nursing care” (Consensus Model for APRN Regulation, 2008, p. 8). This model addresses the CNS as a manager of chronic conditions by stating that clinical nurse specialists are “responsible and accountable for diagnosis and treatment of health/illness states, disease management, health promotion, and prevention of illness and risk behaviors among individuals, families, groups, and communities” (p. 9). The CNS manages and coordinates care across the health care continuum at every touch point and influences patient outcomes by leading nursing practice, providing direct care and integrating system knowledge to advocate for patients.

A key piece of legislation impacting patients and families dealing with chronic conditions is the *Patient Protection and Affordable Care Act* (also referred to as the *ACA 2010*).

Care of patients with chronic conditions is addressed in the *ACA* in the following ways:

- ❖ the tracking of avoidable hospital readmissions and cost savings resulting from improved coordination and management of chronic care;
- ❖ the establishment of community-based health care teams that support patients who require chronic care; and
- ❖ the funding of education for health care providers to include APRNs who will work in an area of chronic care management services (Office of the Legislative Counsel, 2010).

While the Supreme Court confirmed the legitimacy of the *ACA* in 2012, NACNS will continue to closely monitor any changes that may occur.

The *ACA* was the impetus for other initiatives aiming at improving quality and reducing cost. In 2015, the Bipartisan Chronic Care Working Group Policy Options Document (U.S. Senate Committee on Finance Chronic Care Working Group, 2015) challenged the current physician fee-for-payment structure in the care of patients with multiple chronic conditions. This document supports a new “high-severity chronic care” billing code to accommodate the extra time needed in managing complex, chronically ill patients. In response, NACNS, in concert with other national nursing organizations, requested that APRNs be included in the future work and the development, implementation and evaluation of measures in assessing chronic care coordination and management (APRN Organizations Letter to SFC Chronic Care Working Group, 2016).

In 2008, the Association of Academic Health Centers introduced a report on the state of the nation’s health workforce, *Out of Order, Out of Time: The State of the Nation’s Health Workforce*. The focus of this report was the critical need for a new, collaborative, coordinated, national health workforce planning initiative before the nation’s workforce resource was exhausted (AAHC, 2008). *Out of Order, Out of Time* has since been updated to reflect the impact of the *ACA*, and the updated report supports the need to improve access to care, emphasizes population health and examines strategies for cost containment all of which will require a “re-thinking” of the type and distribution of providers to meet the demands of the health care reform (AAHC, 2013).

Despite the efforts of Congress to meet the expanding health care delivery needs of the nation, there remain significant gaps in the policies that impact patients with chronic conditions. For example, chronic pain-related policy recommendations were omitted in the Bipartisan Chronic Care Working Group Policy Options Document (U. S. Senate Committee on Finance, 2015). Another gap concerns policies related to palliative care which could impact a significant number of chronically ill patients and their families. CMS does not include “palliative” or “palliative care services” in reimbursement policies outside of hospice care (Official U. S. Government Site for Medicare). This is not to say that palliative care services are not paid for when rendered for non-hospice patients, but

that specific policy does not exist in the use of palliative care services for chronically ill patients.

Much of the health care coordination required for patients with chronic conditions is provided by their family members in the role of caregiver. Yet policy makers have failed to integrate family members in models of care, leaving the focus on quality improvement and care coordination to health care professionals (Reinhard, Levine, and Samis, 2012). It is imperative that CNSs actively participate in policymaking activities that impact chronic conditions and urge policymakers to include the needs of family caregivers in policy development.

The 21st century has brought increasing pressures for accountability in health care not only from patients and families but also from payers, such as CMS and private insurance companies. Changing population demographics coupled with an increased incidence in chronic conditions has resulted in increased demands for resources and access to providers. Strategies must be developed to support improving quality and reducing costs, all with the goal of improving patient outcomes. Clinical nurse specialists are integral in this work (Jepsen, 2015).

THE CNS ROLE IN CHRONIC CARE: SPHERES OF INFLUENCE

When conducting the literature review, the task force found that the benefit of the CNS role on patient, nurses and system level outcomes emerged as a prominent theme. The efficacy of the APRN role has been empirically documented in terms of outcomes, client satisfaction and decreased service utilization (Jepsen, 2015; Cumbie et al., 2004). As an APRN, clinical nurse specialists are uniquely prepared to effectively manage patients with chronic conditions and contribute to reducing costs for the patient and the health care system.

According to the [2016 CNS Census](#), conducted by NACNS, most CNSs are hospital-based with the majority caring for the adult/gerontology population. Approximately 6.2% of CNSs bill for services and roughly 21.2% have authorization to prescribe drugs. While the greatest concentration of CNSs work in the acute care setting, the survey results revealed the majority of CNSs' time is spent providing direct patient care, consulting with the inter-professional team, teaching and leading evidence-based practice projects (NACNS Census, 2016); all skills necessary to manage patients with chronic conditions.

Clinical nurse specialists bring a balance to care by utilizing the three spheres of influence (patient, nursing, organization/system) and seven core competencies to meet the needs of patients, families, populations and communities (AACN 2010). CNSs work within the three spheres of influence as a model of care in every practice setting from acute to ambulatory care. Three major care settings for CNSs in managing chronic conditions are transitional, ambulatory and home care. The relationship between the spheres of influence and AACN practice competencies (2010) within a variety of settings are illustrated in Table 1. These relationships are discussed in more detail with examples from the literature in the following sections.

Patient

CNSs effectively screened, identified and treated patients at risk for COPD in clinics. Based on the findings of DeJong and Veltman (2004), CNSs taught patients and the larger community how to change behaviors such as smoking to reduce risk of COPD; shared information with nurses on the CNS-led research that resulted in greater nurse engagement in the project; and raised awareness at the community level of how CNSs make a difference in the prevention and early identification of chronic conditions like COPD – mirroring CNS work in the three spheres of influence.

Kilpatrick, et al, (2014) conducted systematic literature reviews of CNSs in outpatient roles and in transitional care. In outpatient care settings, evidence supports the cost-effectiveness of CNSs as alternative and complementary providers in direct patient care. For hospital to home transitional care, CNSs reduced mortality in post-cancer surgical patients, and for heart failure and the elderly population, CNS outcomes included a reduced rehospitalization rate, decreased costs and length of rehospitalizations.

CNSs also meet patients' needs as facilitators of care in case manager roles. As case managers: CNSs visit patients at home to develop an in-depth understanding of chronic needs to support patients and their families in finding the necessary resources in a timely and efficient manner; use advanced techniques such as assessment of patients' readiness to change and motivational interviewing; translate patients' needs to nurses and other health care providers; create environments of respect and empathy; and reduce high-cost services such as emergency room visits and hospital readmissions (Ulch & Schmidt, 2013). In home health care, CNSs have the advanced skills to facilitate and coordinate patients' transitions from hospital to home, detect clinical problems early as well as coach and educate patients and families on health behaviors to manage chronic conditions (Adams, 2015).

In a literature review regarding the skills of the CNS on managing chronic conditions, Moore and McQuestion (2012) identified a common theme, communication and collaboration between CNSs and other providers. Other aspects in managing and treating patients with cancer and heart failure were reducing hospital admissions and providing preventative care. Readmissions were significantly reduced, patient satisfaction improved due to continuity of care and appropriate referrals, and system metrics were achieved with CNS involvement (Moore, 2012).

To facilitate the transition home and potentially prevent readmissions, CNSs who provided follow up phone calls to 559 older adult patients discharged home from acute care settings identified 129 patients who still needed assistance with prescriptions, follow up care or home care referrals (Delp et al., 2016). Moore (2012) found that CNS care and support are needed most in the early weeks and months after diagnosis and hospitalization for patients with chronic conditions. This early follow up is aligned with transitional care management. The role of the CNS in transitional care management has been addressed by another NACNS taskforce in the [Transitions of Care Toolkit](#).

Nursing

Organizations have begun to restructure the role of the clinical nurse specialist to facilitate transition of care with patients who have chronic conditions from the acute into the ambulatory setting after discharge (Negley et al, 2016). Numerous opportunities to enhance nursing practice were identified when CNSs covered ambulatory care settings in their respective specialty (Negley et al, 2016). Coaching and educating staff, developing protocols and policies, standardizing care among high-cost diagnostic groups and empowering nurses to work to their full scope of practice are means by which CNSs improved the delivery of chronic care in ambulatory settings (Negley et al., 2016).

Home care nurses, who are most isolated from other providers and nearby resources might benefit the most from CNS support (Policicchio, Nelson & Duffy, 2011). A CNS-led education program to enhance learning and confidence in asthma care had a significant impact on nurses working in community settings that led to better patient outcomes (Policicchio et al., 2011). Supporting interprofessional caregivers in the

nursing sphere of influence is another example of how CNSs meet the needs of patients with chronic conditions.

CNSs are role models of advanced care and techniques and support staff by providing the latest evidence-based guidelines for chronic care in the nurse/nursing sphere (Policicchio et al., 2011). With skills in identifying best practices in research and implementing standards and guidelines, CNSs are critical to maintaining quality in home care systems that lead to better outcomes in chronic care management (Adams, 2015).

System

CNSs have a pivotal role to play in leading organizational quality improvement. They understand the emphasis on containing costs and ensuring quality outcomes and positive patient experiences in the current health care environment. The influence of the CNS in the care of patients with chronic conditions transitioning between health care settings is reflected in attainment of optimal outcomes that minimize readmission risk.

Effective management of patients with chronic conditions presents opportunities for the clinical nurse specialists to demonstrate how they can reduce costs for the patient and the system. Evidence of cost avoidance is reflected in fewer complications and readmissions, higher patient and staff satisfaction and reduced length of stay. These economically favorable quality outcome measures have been demonstrated by CNS practice in a number of chronic conditions (Minakakis, 2016; Cameron, 2015; Negley, Cordes, Evenson, & Shlad, 2015; Bryant-Lukosius, Carter, Reid, Donald, Martin-Misener, Kilpatrick & DiCenso, 2015; Balsdon & Wilkinson, 2014; Leary, 2011). Specifically, Ulch and Schmidt (2013) described a community-based model of care for complex chronic condition management by CNSs. A comparison of financial results of CNS intervention to the year prior, which had no CNS service, found a 27% decrease in costs, a 37% decrease in inpatient days, a 29% decrease in emergency utilization, a 28% decrease in inpatient admissions and a 70% reduction in readmission rates (Ulch & Schmidt, 2013). All of these results represent significant savings via cost avoidance.

Moore & McQuestion (2012) reported that in a study of patients with prostate cancer, follow up care by a CNS resulted in a 37% cost savings. In a study regarding patients with breast cancer, post treatment patients reported more satisfaction with CNS care compared with general practitioner care (Garvican et al., 1998). Quality outcomes were also noted in a study by Moller et al. (2005) comparing CNS-led education to standard nursing education in Hickman catheter care. There was a significant reduction in catheter-related infections when a CNS was involved.

The CNS has been part of many interprofessional teams involved in preventing readmissions of patients with chronic conditions. Ryan and Mason (2009) describe a team of nurses which included two CNSs that created a group discharge education process which led to an 82% reduction in 90-day readmissions of patients with heart failure. Agencies are utilizing CNSs to be Community-Based Nurse Care Managers who

partner with nurse practitioners and other providers to reduce costs associated with utilization of emergency care services, length of stay and number of inpatient admissions (Ulch, & Schmidt, 2013).

THE CNS ROLE IN CHRONIC CARE: MANAGEMENT AND CARE COORDINATION

Clinical nurse specialists are one of the approved providers to receive reimbursement through Medicare for transitional care management, a service which presents a major opportunity for the CNS to embrace the roles of primary coordinator and collaborator in chronic care management. In some health care systems, CNSs are being assigned the responsibility to establish and manage transitions of care.

NACNS 2013 position statement on the Importance of the Clinical Nurse Specialist Role in Care Coordination says:

The CNS role promotes quality health care services and decreases health care expenditures through management of a patient's primary and chronic health care as well as through care coordination and transitions using advanced nursing knowledge, abilities, and skill. A review of the CNS Core Competencies supports the centrality of the function of care coordination within the CNS role and shows that the CNS is educated and prepared to be not only a participant in care coordination but also to partner with other providers in the leadership role for coordination of care transitions. Studies have demonstrated that care coordination promoting seamless care transitions is integral to the CNS role and results in reduced hospital length of stay and fewer hospital readmissions and hospital-acquired conditions. (Impact of the Clinical Nurse Specialist Role on the Costs and Quality of Health Care, December 2013) The role of the CNS as uniquely qualified and positioned to lead and coordinate care transitions is supported by evidence as well as throughout the CNS core competency statements (NACNS, 2013).

The Institute of Medicine also recognized the CNS as a manager of chronic conditions its 2010 *The Future of Nursing: Leading Change, Advancing Health* report. It described the CNS as a unique APRN role:

The CNS has a unique APRN role to integrate care across the continuum and through three spheres of influence: patient, nurse, system. The three spheres are overlapping and interrelated but each sphere possesses a distinctive focus. In each of the spheres of influence, the primary goal of the CNS is continuous improvement of patient outcomes and nursing care. Key elements of CNS practice are to create environments through mentoring and system changes that empower nurses to develop caring, evidence-based practices to alleviate patient distress, facilitate ethical decision-making, and respond to diversity. The CNS is responsible and accountable for diagnosis and treatment of health/illness states, disease management, health promotion, and prevention of illness and risk behaviors among individuals, families, groups, and communities. (IOM, page 331).

The *Future of Nursing* IOM report described the barriers to nursing practice that impede the ability to fulfill the objectives of the *ACA*, but more importantly, it identified the changes within nursing and health care that must happen to meet the nation's health care needs (2011). One of the primary recommendations of *The Future of Nursing* report was to ensure that nurses can practice to the full extent of their education and training. Although some states have embraced this recommendation and evolved with health care reform, allowing certain APRNs full practice authority, the bylaws within health care organizations often still limit APRN practice (Jepsen, 2015).

ISSUES FOR CNS PRACTICE

Two components of a high-performing chronic care system are evidence of interprofessional team work in primary care and the integration of care so that the primary health care teams can access specialist advice and support as needed (Ham, 2010). The clinical nurse specialist is the ideal APRN to lead collaboration within and across health care settings. With overlapping spheres of influence that affect the patient, nursing practice and system components of care, the CNS is positioned to be the bridge between disciplines and have a versatile approach to managing patients with chronic conditions. The relationship between the nurse and the interprofessional team is synergistic in the provision of services for chronic conditions. These conditions can be very fluid yet unpredictable in their severity.

Evidence based practice (EBP) is the foundation of our health care system. The essence of EBP is to drive practice changes based upon the best evidence and research available; however, there are barriers to adopting and implementing best practices when cost supersedes programs, people or devices that propel the interventions of EBP. Impediments to EBP may also include health care professionals' or administrations' reluctance to change, which is often viewed as disruptive to workflow processes and too costly. CNS action incorporates collaboration to facilitate change because the CNS has the unique skill set to identify and mitigate conflict and lead health care teams in the redesign of systems better meeting the needs of the patient.

There is a growing need to increase the utilization of clinical nurse specialists in ambulatory and community settings to facilitate the transition from acute care. However, there continues to be a disproportionate number of CNSs in the acute care setting (NACNS Census, 2016). Changes that have contributed to the paucity of CNS roles in the community include closure of community CNS programs at universities and the phasing out of the community health CNS certification and retiring of the Advanced Public Health Nurse Board Certification. The shift in the paradigm of chronic care to the community presents an emerging opportunity for the CNS to help patients with chronic conditions navigate across alternative settings such as the home health care system (Adams, 2015).

CNS EDUCATION AND POLICY

The CNS curriculum is specifically designed to meet the CNS role competencies, which cover a broad spectrum of patient needs across the three spheres of influences from wellness to acute care. [The Criteria for the Evaluation of Clinical Nurse Specialist Master's, Practice Doctorate, and Post-Graduate Certificate](#) (NACNS, 2011) provides direction to CNS curriculum development, as well as guidance on how to develop and promote sustainability of CNS education programs. Because CNS care is not setting-specific and much of chronic care occurs outside of the acute care setting, programs that educate future CNSs need to provide opportunities for learning about clinical care and CNS practice that extend beyond the acute care environment.

In addition to endorsing the APRN Consensus Model (2008), NACNS endorsed the Doctor of Nursing Practice degree for entry into CNS practice by 2030 (NACNS, 2016). Considering the complex needs of patients and the future direction of health care and nursing practice; doctoral level preparation for practice in the CNS role will better position the CNS to meet the demands of an evolving health care system.

Adults with chronic conditions typically have multiple co-morbidities which contribute to difficulty in managing their health independently. CNSs have the unique opportunity to: provide clinical expertise for patients with complex problems; utilize prescriptive authority to decrease length of hospitalizations and get patients the resources they need; and support nursing practice and system level initiatives to prevent unnecessary admissions to the acute care setting. Embedded in evidence-based outcomes, health policy, systems thinking and care coordination, the CNS is well-equipped to manage patients with chronic conditions. Recognizing the CNS role and its competencies by all health care stakeholders, including providers, payers, policymakers, and consumers by way of public policy, will open avenues to better health, better care, and lowered costs (AACN, 2010).

RECOMMENDATIONS

Based on an extensive literature review and input from the expertise of CNSs across the U.S. and at national conference forums, the integration of competencies and a comprehensive examination of related definitions and concepts, the Chronic Conditions Task Force determined that clinical nurse specialists are well equipped to be a resource in the care and management of patients with chronic conditions. Major opportunities exist for clinical nurse specialists to embrace the roles of primary care coordinator and collaborator in chronic care management.

The task force offers the following recommendations:

Recommendation 1: CNS competencies, curricula and continuing education should focus on the CNS as a licensed, independent, autonomous, reimbursable provider of health care services. Educational resources should be developed to assist CNSs, including but not limited to: prescriptive authority for medications, durable medical equipment and third-party payer reimbursement.

CNS curricula and continuing education offerings need an expanded integration of health policy and finance. These additions should include: reimbursement for CNS services, specifically billing and coding; policy implications impacting health care finance; and addressing gaps in patient care. There should also be a conscious effort to facilitate educational opportunities across the full care continuum, with an emphasis on care coordination.

Recommendation 2: NACNS should expand efforts to promote the CNS as a key APRN role in the care of patients with chronic conditions.

Clinical nurse specialists focus on a population of specialty and a scope of practice from wellness to illness and acute to chronic care lays the foundation for this concept. CNS practice allows management of individual patients while coordinating care with a wide-range of health care professionals spanning multiple settings to best help patients and families achieve their health care goals. With the predicted expansion of the nation's aging population, a population that has been identified to be at a higher risk for chronic conditions and co-morbidity, it is imperative that all health care providers, including clinical nurse specialists, be able to practice at the full scope of their preparation and training in order to meet future health care needs.

NACNS must continue to:

- ❖ Address neutral language in federal and state statutes where APRN scopes of practice are defined;
- ❖ Promote the CNS as a much-needed entity to propel initiatives that improve access to care; and

- ❖ Showcase the contributions of clinical nurse specialists in reducing costs and improving outcomes for patients with chronic conditions.

Recommendation 3: NACNS should advocate for research to further and more clearly identify the impact of the CNS role on the constructs of IHIs “Triple Aim” of cost, quality, and patient experience (Berwick et.al, 2008); and delineate the CNS role from other care providers in chronic care management.

The task force identified the need for further exploration of the impact of clinical nurse specialists working in the community and telehealth and managing patients with chronic conditions. This scope of work was beyond the task force’s charge, but recommends that it should be examined more completely.

More research is also needed to expand the body of knowledge related to the impact of the CNS role and function on chronic care outcomes.

Recommendation 4. NACNS should continually and actively advocate for policies that improve care for the population of patients with chronic conditions, including the cascade of effects these conditions have on patients and their families.

Recommendation 5. NACNS should address the role of the CNS in promoting population health and addressing complex needs using complex care models for vulnerable populations, including patients with multiple chronic conditions.

SUMMARY

The literature provides a solid evidence base and supports clinical nurse specialists as providers of care coordination and champions of outcomes that benefit the patient, nursing practice and healthcare systems.

The CNS is recognized by the IOM, AAHC, CMS and the Joint Dialog Group as a much-needed provider who is highly capable of leading initiatives that improve access to care. The impact of the CNS role on components of healthcare's Triple Aim is also well substantiated in the literature. Clinical nurse specialists improve quality of care and patient experiences and reduce costs for the patient and systems.

The spectrum of chronic conditions and the ability needed to navigate the health care system are extremely complex. Caring for patients with chronic conditions requires a high level of knowledge and an advanced skill set as patients transition in and out of health care environments along their wellness continuum.

The educational preparation for, the required competencies and spheres of influence that guide, and the research that validates the CNS model of care favor the CNS role as one that is uniquely prepared to provide, coordinate and manage care for patients with chronic co-morbid conditions across health care settings.

TABLE 1: COMPETENCIES AND SELECT BEHAVIORS OF CNS CARE OF PATIENTS WITH CHRONIC CONDITIONS

Competency	Sphere of Influence		
	Patient	Nurse/Nursing	Organization/System
Direct Care	<p>Visits patients at home to develop an in-depth comprehensive of needs (Ulch & Schmidt, 2013) and identify problems early (Adams, 2015)</p> <p>Uses advanced techniques such as assessment of patients' readiness to change (Ulch & Schmidt, 2013)</p> <p>Gets patients resources they need in a timely and efficient manner (Ulch & Schmidt, 2013)</p> <p>Early screening and identification of patients at risk for chronic conditions in the community setting (DeJong & Veltman, 2004)</p> <p>Educates patients how to change high risk behaviors such as smoking to reduce risk of chronic conditions (Adams, 2015; DeJong & Veltman, 2004)</p>	<p>Manages transitions of care from acute to ambulatory care with nurses and other health care team members (Adams, 2015; Negley et al., 2016)</p>	<p>Leads development of evidence-based protocols and standardizes care to meet patient/family needs (Negley et al., 2016)</p>

Consultation		Translates patient needs to the nurses and other health care providers (Ulch & Schmidt, 2013)	Leads health care team member to integrate patients' needs in plans of care (Ulch & Schmidt, 2013)
Systems Leadership			<p>Develops policies and standardizes care among high-cost diagnostic groups (Negley et al., 2016)</p> <p>Leads in promoting inter-professional care (Ulch & Schmidt, 2013)</p>
Collaboration			Leads collaborative efforts among health care teams (DeJong & Veltman, 2004; Negley et al., 2016; Ulch & Schmidt, 2013)
Coaching	<p>Coaches patients and families to navigate the health care system (Ulch & Schmidt, 2013)</p> <p>Used motivational interviewing techniques (Ulch & Schmidt, 2013)</p>	<p>Coaches nurses and other staff members (DeJong & Veltman, 2004; Negley et al., 2016)</p> <p>Provides formal education for community based nurses in the management of chronic conditions, ie., asthma (Policicchio, Nelson & Duffy, 2011)</p>	Designs and delivers educational programs in health promotion and prevention of chronic conditions (DeJong & Veltman, 2004)

<p>Research</p>		<p>Educates nurses on research to identify early risk factors for chronic conditions (DeJong & Veltman, 2004)</p>	<p>Conducts research on early identification of chronic conditions in the community setting (DeJong & Veltman, 2004)</p> <p>Uses data to assess the quality and effectiveness of CNS led clinical programs (DeJong & Veltman, 2004; Negley et al., 2016; Ulch & Schmidt, 2013)</p>
<p>Ethical Decision-Making, Moral Agency and Advocacy</p>	<p>Facilitation of patient/family understanding of the risks, benefits, and outcomes of proposed health care regimen.</p>	<p>Empowers nurses to work at full scope (Negley et al., 2016)</p> <p>Advocates for the CNS/APRN role in chronic care in the community setting (DeJong & Veltman, 2004; Negley et al., 2016; Ulch & Schmidt, 2013)</p>	<p>Creates an environment of respect and empathy (Ulch & Schmidt, 2013)</p>

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APPENDIX A: EXTENDED BIBLIOGRAPHY

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APPENDIX B: FEEDBACK FROM 2016 NACNS CHRONIC CARE TASK FORCE MEETING

Chronic Care Task Force Forum

NACNS Conference March 3, 2016

19 CNSs attended (plus Lori Dambaugh, Judy, Ludmila Santiago-Rotchford, Jane Swartz and Mitzi Saunders)

Notes by Jane Swartz and Mitzi Saunders

- 1) What chronic illness do you help manage in your current practice settings?
 - Heart failure, hypertension, hyperlipidemia
 - Diabetes
 - COPD/pulmonary hypertension
 - End stage renal disease
 - Mental disease/dementia/severely impaired cognition
 - Morbid obesity
 - More than three at a time
 - Stroke
 - LTC population
 - Wound Care

- 2) In what settings do you manage patients with chronic conditions?
 - Long-term (dialysis unit, HTN clinic, etc)
 - Acute
 - Rehab
 - Family practice

- 3) Describe your role in assisting patient to manage their chronic illness.
 - Daily rounds
 - Coaching
 - Patient education
 - Nurse education
 - Primary care with full Rx authority (home care and in LTC type units/clinics – prescribes and bills for services)
 - Coordination
 - HF program “Need the CNS out there running the show”
 - Catches mistakes (example of CNS finding a med issue in a renal patient when a hospitalist wanted to put a post-parathyroid patient back on previous meds)
 - CNSs take up the “lost” population or patients without providers

- 4) What barriers have you encountered in assisting patient manage their chronic illness?
 - “turf issues” such as case manager or social worker (about transitions of care), “too many prescribers already” so can’t really bill in acute care
 - Not seen as expert by other health providers
 - Nurses unable to refer to CNS
 - Process of billing and not knowing how to bill for services
 - Electronic health record does not communicate between sites
 - Lack of title protection / RX authority in states
 - Role confusion between CNSs and NPs – physicians do not see a difference
 - Pegged as either acute care or community based but not both

- 5) Are you able to function as an APRN to the extent described in the Consensus model?
 - Most have prescriptive authority but not using it (about half)
 - Some have credentialing and privileges
 - Work with high number of NPs

- 6) Recommendations
 - That national standards for CNS practice carried out across the country
 - Need a vision about chronic care and what’s the future
 - Look at what is in research to form a model for practice
 - Need exemplars for the CNS in chronic care
 - Need outcomes \$\$\$\$
 - Need collaborative care models
 - Show us how to move forward and moving out of acute care and convince others of how we affect the bottom line
 - How can we meet the needs of primary care?
 - One model to guide care
 - Shared meaning of how care is done across settings so we can maintain goals of care across settings
 - Use of the Chronic Care Model – works well with known providers. Problem is when patients don’t have a provider

APPENDIX C: FEEDBACK FROM 2015 NACNS CHRONIC CARE TASK FORCE MEETING

NACNS National Conference, San Diego, Calif. on March 5, 2015

Notes by Cheryl Lillegraven

1. Does your organization have any programs for managing chronic conditions?

- COPD, HF, diabetes – Utilize Navigators (SW, NP, Quality Management Dept.)
- Tele-health – COPD, diabetes (RN case manager)
- Chronic Children – hospitalized > 3 times/year and require 2 or more services; for any condition other than cancer, cystic fibrosis. (CNS led, ½ time case manager, SW)
- Cancer Care – Offer support groups, palliative referrals (RN, CNS)
- Medical Home for pediatric patients with chronic needs; any condition, ventilator dependent
- Oncology – Care Coordinators (RN)
- Palliative Care (Outpatient CNS)
- High risk diabetes disease manager (CNS)
- In California – for Medicare patients - transition coordinators. Seen by RN and followed for 2 months to help avoid readmissions part of a grant program.

2. Population areas of need – (in addition to HF, diabetes, COPD, renal, etc.)

- Mental health
- Autism – what does the future look like for these kids?
- Sickle Cell
- Post ICU care – f/u after a ICU stay
- Children with chronic diseases such as cystic fibrosis and diabetes have challenges when transitioning to adult care from pediatric care
- Transplant patients
- Patients with (VADs) Ventricular Assisted Devices
- Chronic pain
- Post Stroke
- Inflammatory bowel
- HIV
- Autoimmune diseases
- Wounds
- Manage rising risk, not just high risk
- There may be opportunity in prisons

3. What do you view as the CNS role in chronic disease management?

- Include patient/family
- Have to know when to step back and refer (acute to palliative)

- CNS – assisted living opportunity
- Symptom management
- Functional status
- Quality of Life
- Need to articulate what the CNS brings to chronic disease management vs. RN, SW, NP, case manager
 - Advanced assessment, coordinate multiple services, triage, team leader, program management – protocols, EBP, system knowledge
- Shared medical appointment with provider

4. Barriers and Challenges for CNSs in chronic disease management?

- Patients labeled “non-compliant”
- Cultural beliefs
- Health literacy
- Lack of resources and support
- Chronic needs in an acute care world
- Limited by area of practice – can’t keep up with the movement of patient
- Lots of psycho-social issues
- Multiple screenings being done for patients (i.e. depression) and then nothing being done about positive screen
- No standard on how to deal with multi-chronic conditions
- Currently set up in health care to deal with single chronic conditions
- Spread too thin – wear too many “hats”
- Not at the table when decisions are being made about chronic care management
- Already activities taking place for chronic care management that may not even include RNs

5. Other suggestions/ideas/questions

- Is there more involvement of CNSs in states with prescriptive authority?
- Some employers are employing NPs to manage their employees
- CCO, ACOs are outcome oriented so this is an opportunity for alignment with CNSs
- Standards of care need to cross continuum