Mentoring the Nurse of the Future: Clinical Nurse Specialist Students in the Radiology Setting

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ABSTRACT: **Interventional radiology is a new and rapidly emerging specialty. Evolution of image guidance technology has fostered the discovery of multiple minimally invasive techniques and procedures that allow patients the opportunity to avoid an operative visit. Interventional radiology is now a robust specialty for practitioners at every level of practice. Clinical nurse specialists (CNSs), now considered advanced practice nurses, have a vast knowledge base and a unique skill set; however, until the recent passage of the advanced practice nurses' uniform consensus model and title protection, CNSs were thought to be indistinguishable from clinical instructors and clinical educators. This article will describe the role of the CNS in the radiology setting, and how the radiology CNS in a complex organization practices across the three spheres of influence, demonstrating the core competencies outlined by the National Association of Clinical Nurse Specialists.**

The role of the CNS as a clinical mentor is discussed, the structure and process of creating student projects are described in the context of the National Association of Clinical Nurse Specialists core competencies, and some key strategies for success will be shared with the reader, which could be used as a reference point for preceptors of CNS students in a radiology setting. (J Radiol Nurs 2015;34:150-156.)

KEYWORDS: **Clinical nurse specialist; Interventional radiology; Mentoring.**

INTRODUCTION

Interventional radiology (IR) was born on January 16, 1964, when Charles Dotter percutaneously dilated a stenotic segment of the superficial femoral artery in an 82-year-old woman with painful leg ischemia (Roesch, Keller, & Kaufman, 2003). Two years later, Alexander Margulis, a gastrointestinal radiologist and educator, coined the term "interventional radiology," recognizing the emergence of the specialty; he described the need for clinicians to have specialized training, technical skills, clinical knowledge, and the ability to care for patients before, during, and after procedures (Roesch et al., 2003). In the ensuing 50 years, research and innovation have resulted in the development of diagnostic, therapeutic, palliative, and curative procedures of increasing complexity for a range of conditions offered to patients of varying levels of acuity.

Some of the procedures done on a daily basis in IR departments at large-scale academic medical centers may include but are not limited to lumbar punctures, administration of intrathecal chemotherapy, myelograms, cerebral angiograms, vertebral augmentation; transarterial chemoembolization, selective internal radiation, microwave, thermal, and cryoablation of tumors; placement of central vascular access; dialysis interventions: biopsies (ultrasound, computed tomography, or magnetic resonance imaging guided), paracentesis, thoracentesis, hysterosalpingograms, placement of gastrostomy, jejunostomy, cholecystostomy, suprapubic or percutaneous nephrostomy tubes; placement of abscess drains, biliary drains,

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biliary dilatation; uterine fibroid embolization; embolization of bleeding vessels, transjugular intrahepatic portosystemic shunt procedures, endovenous laser ablation, as well as procedures to preserve dialysis shunts/fistulae.

The need to keep patients' safe and comfortable during procedures has led to a variety of nursing roles and the emergence of the clinical nurse specialist (CNS) role in IR. Radiology nursing is a distinct specialty requiring a vast knowledge base and unique skill set. Future growth of the specialty will drive demand for radiology nurses and CNSs to care for a growing population of patients. However, few CNSs have the opportunity to choose radiology as a clinical practicum site during their undergraduate training or graduate education. This article will describe the role of the radiology CNS and the benefits of making IR a clinical practicum setting for CNS students. It includes identifying the core elements of a successful clinical practicum with projects that encourage the learner to cultivate the knowledge, skills, and attributes of a CNS and developing the core competencies outlined by the National Association of Clinical Nurse Specialists (NACNS), within a chosen population and the specialty foci. Key strategies for candidate selection, screening, orientation, and balancing the clinical workload while mentoring a CNS student are also discussed.

The Role of the CNS

The radiology CNS is an advanced practice nurse who supports the mission of the department and practices across the three spheres of influence: patient and family, nursing, and hospital system (NACNS, 2010a,b). The CNS adds value to the patient experience through the provision of expert clinical care, education, research, and interprofessional collaboration. The radiology CNS works collaboratively with medical directors, nurse managers, and other advanced practice nurses (APRNs). However, unlike nurse practitioners and physician assistants in the radiology setting, the role of the CNS is rooted in the nursing model. Although the roles of CNSs and Nurse Practitioners (NPs) are indistinguishable in some jurisdictions, the core competencies and unique skill set of the CNS result in the cultivation of a practice leader and change agent who does not extend the ability of the physician or radiologist, rather focuses on population management, system design, and process improvements that optimize patient outcomes (Chittle et al., 2015). Unlike clinical educators or clinical nurse coordinators, for whom academic preparation and credentialing are variable, the education, certification, and licensure of the CNS distinguish them as APRNs. As APRNs, CNSs also have specific scope of practice privileges, which extend beyond that of the Registered Nurses (RNs) to include patient assessments (risk assessment, wound and skin care, device management, and appropriateness for sedation), consultation, and preprocedure teaching, and which may be eligible for reimbursement, depending on jurisdiction. The CNS's ability to streamline processes, reduce risk, elevate practice, improve outcomes, conduct research, and generate revenue makes them a unique asset to the care team.

Radiology CNSs are typically found in specialty practices and complex university-affiliated institutions, in particular those facilities who have achieved Magnet® designation. CNSs add value through their roles as expert clinician (providing direct and indirect care) educator/coach, collaborator, consultant, and systems leader across the three spheres of influence. The radiology CNS who typically has previous experience in critical care, emergency, or interventional nursing has an extensive orientation that includes exposure to radiology nursing in addition to orientation in education, organization culture, leadership, and systems improvement with other CNSs and leaders across the institution. In 2006, the NACNS outlined the seven competencies of the CNS in a variety of settings. Table 1 outlines the NACNS competencies and gives examples of actions across the three spheres of influence. Further detail of the important role contributions of the CNS is outlined later (Table 1).

Education/Collaboration. Improving and evaluating the patient experience are core functions of the radiology CNS role. Working collaboratively with intraprofessional team, the CNS leads initiatives to develop, revise, and ensure availability/accessibility of patient education materials. CNSs improve patient and family education to meet safety guidelines, reduce complication rates, ensure safe transitions in care across the continuum, and reduce the rate of preventable case cancellation through implementation of key educational initiatives, such as a nurse-initiated preprocedural phone call program. Nursing education strategies designed, developed, and delivered by the radiology CNS include evidence-based orientation, competency training programs, and episodic reviews to ensure radiology nurses have the ability to assess, intervene, and reevaluate radiology patients in the provision of high-quality safe patient care. The radiology CNS supports and facilitates intermittent education, such as the planning, development, and implementation of education specific to new technology used in the radiology setting (such as the use of intravenous pumps, patient-controlled analgesia pumps, and patient monitoring systems); and participation in intraprofessional education through the delivery of national