

## **Practice Memo**

### **A Primer on the Integration of Nurse Practitioners and Physician Assistants into a Vascular Surgery Practice**

*Prepared by John G. Adams, MD<sup>a</sup>, Robert Engles, MD<sup>b</sup>, Felix Vladimir, MD<sup>c</sup>, and Jill Zink, MD<sup>d</sup> on behalf of the SVS Community Practice Committee*

This practice memo is intended to be a primer to aid vascular surgeons, especially those in solo practice or those just beginning their vascular surgery career, who are contemplating and/or in the process of integrating a nurse practitioner (NP) or physician assistant (PA) into their vascular surgery practice.

The practice of vascular surgery continues to evolve in response to many factors including constantly changing regulations, technological changes/advancements, work-force restrictions/limitations, declining reimbursement, and quality-of-life considerations. Reimbursement for peripheral vascular procedures continues to decrease and favor the performance of procedures in an office setting or at an outpatient center. Participation in “centers of excellence” including vein centers, wound care centers, dialysis access centers, angiography/intervention centers, etc. must be considered in today’s economic/competitive environment in order to maintain a viable vascular surgery practice. At the same time, treating hospitalized patients has become much more complex and time-consuming given the hospital systems (EMR, CPOE, etc.) that the hospital physician must navigate.

In an attempt to optimize efficiency and improve the quality of care for vascular patients, many vascular surgery practices are integrating PAs and NPs into their practices. The benefits of NPs and PAs go well beyond the generation of revenue. Studies have demonstrated improved patient satisfaction scores and improved quality of life measures for the physician.

Several studies have demonstrated the positive impact of a PA and/or NP at a cardiovascular practice. Southey et al. showed that NPs covering in-patient cardio-thoracic rounds in British National Health Service hospitals improved patient outcomes including survival after cardiac surgery.<sup>1</sup> Another study has demonstrated that NPs and PAs can perform invasive procedures in the ICU setting with complication rates similar to resident physicians. PAs and NPs also improved quality of life scores and anxiety/depressive symptoms for patients undergoing

vascular interventions.<sup>ii</sup> It is clear that a vascular surgeon working in conjunction with PAs and NPs results in benefits for all providers and most importantly the patient.<sup>iii</sup>

### ***Job Descriptions***

Job descriptions for the various types of providers working in a vascular surgery practice continues to expand. Traditionally, NPs and PAs have worked in collaboration with physicians in the clinic and hospital setting to provide care in the evaluation and management of vascular patients.<sup>iv, v</sup> Nurse practitioners have typically not been involved in performing surgical interventions, whereas, physician assistants have been integrated in a similar fashion but with the added skill of performing interventions such as chest tube insertion, central venous catheter insertion, harvest of vein for bypass operations, etc. The traditional roles of both NPs and PAs are being expanded to include the skill sets specific to a modern vascular surgery practice. Wound care, sclerotherapy, endovenous procedures, and insertion of dialysis catheters are but a few of the procedures that physician assistants and nurse practitioners now perform in a vascular surgery practice.

### ***Education/Training***

#### *Nurse Practitioners*

There are several pathways leading to the nurse practitioner designation. The most common educational path is by completing a registered nursing (RN) degree and obtaining licensure as an RN. In all states, RNs must pass the National Council Licensure Examination, or the NCLEX-RN. Nurses typically work two to three years as an RN prior to entry into an NP program. The NP programs vary from one to four academic years and lead to a Master's Degree in Nursing. All NPs must complete a master's or doctoral degree program, and have advanced clinical training beyond their initial professional registered nurse preparation.<sup>vi</sup> There is no licensure exam for nurse practitioners similar to NCLEX-PN for practical nurses or NCLEX-RN for registered nurses. Licensure laws differ depending on the state. Generally, NPs are licensed by the Board of Nursing for the state in which they will practice. NPs undergo rigorous national certification, periodic peer review, clinical outcome evaluations, and adhere to a code for ethical practices.<sup>vii</sup> After passing their certification exam, a nurse practitioner must apply to his or her state in order to be licensed. There may be additional requirements. Then, they can work as a NP under the scope of practice (regulations and rules) of their state.

#### *Physician Assistants*

Physician assistant school typically requires three academic years (26 months) to complete and consists of classroom instruction and clinical rotations (approximately 2,000 hours) with an emphasis on primary care in ambulatory clinics, physician offices, and long-term care facilities. Certification requires graduating from an accredited PA program and passing the Physician

Assistant National Certifying Exam (PANCE) administered by the National Commission on the Certification of Physician Assistants (NCCPA). All states require certification (graduation from an accredited PA school and passing PANCE) to obtain a state license. Maintenance of certification requires 100 hours of CME credits every two years (introduced in 2014) and passage of the recertifying exam (PANRE) every 10 years.

In addition, PAs typically enter surgical practice by either completing a surgical residency program for PAs, graduation from a surgically focused training program, or on the job training. Surgical PAs have received didactic and clinical training to function in all areas of the peri-operative environment, including pre-admission, testing, intra-operative first assisting, PACU care, SICU care, step-down unit, outpatient clinic, office practice, and even home care.

The surgical PAs primary function is to assist the physician in the global management of patient care in pre-, intra- and post-operative settings. Surgical PAs can typically perform 80% of tasks that their supervising physicians do and often handle routine problems and procedures, freeing the surgeon to concentrate on more complex patients.<sup>viii</sup>

## ***Supervision Requirements***

### *Nurse Practitioners*

The supervision requirements for nurse practitioners vary by state from full practice to reduced or even restricted practice. In a state with a full practice environment, a nurse practitioner can evaluate and diagnose patients, prescribe medications, order tests, and initiate or manage treatment. In a state with restricted practice, the ability of a nurse practitioner is restricted by law in at least one element of NP practice. These states require supervision, delegation, or team management by an outside source in order for the NP to provide care. Many states also specify how often a collaborating physician must review NP activities. More information on specific requirements can be found at [www.aanp.org](http://www.aanp.org).

### *Physician Assistants*

There are different state laws and variable requirements that govern physician assistants. All states authorize PAs to practice medicine and to prescribe, but the scope of practice is governed by individual state laws, the training of the individual, and the various facility policies. Medical and surgical services provided by physician assistants are typically covered by most health insurance plans, however; there are various policies and regulations that must be followed. PAs must be supervised by a physician, but the physician is not required to be present. However, it is imperative that the supervising physician be in contact with the PA by telecommunication. PAs also are required to be evaluated by their supervising physicians, with the frequency determined by the state in which they practice. More information on specific requirements can be found at [www.aapa.org](http://www.aapa.org).

## ***Practice Integration***

NPs and PAs can be integrated into many aspects of a vascular surgery practice and can truly be an invaluable asset of the best practicing clinicians. They can see patients in the outpatient clinic setting as well as round on inpatients and see hospital consults on weekdays or weekends. Many perform bedside procedures such as wound debridement, chest tubes, and central lines. They can also aid in the endovascular management of dialysis patients for temporary and tunneled dialysis catheters and fistulagrams. Additionally, they can be trained in areas of venous interventions such as sclerotherapy, and can assist with endovenous laser therapy and radiofrequency ablation.

Of particular importance in the ever-changing climate of hospital budgets is the elimination of previously provided assistants in the operating room. The cost and additional stress of finding appropriate help is often shifted to the surgeon. In these cases, NPs and PAs can provide experienced, dedicated, and trustworthy assistance.

In addition to clinical roles, NPs and PAs are often very valuable in administrative roles, as well as assisting with research. In a practice with multiple residents and students rotating on and off the service, the NP or PA is a constant on the team and a key resource for the physicians in-training.

The role of a PA or NP is unique as well as complimentary to the role of the physician. By working together, they can help bring sensitivity, empathy, compassion, and a holistic approach to patient care into a busy and occasionally hectic vascular surgery practice.

## ***Economics***

Vascular surgeons that are contemplating hiring a nurse practitioner or physician assistant should perform a careful analysis of the associated costs and benefits. From the very outset, consideration must occur of the expected benefits to the practice in the form of increased efficiency and productivity, as well as a way to provide potential improved quality of life and satisfaction.

### ***Salary***

The first expense to analyze is the salary of the nurse practitioner or physician assistant. According to a 2012 US News and World Report, the median salary for a physician assistant was \$90,930. The top 10% made \$124,770, and the bottom 10% made \$62,430. For nurse practitioners, the median salary was \$96,000. The top 10% made \$121,000, and the bottom 10% made \$64,000.

### ***Other Expenses***

Additional expenses need to be considered. The benefit package for a NP or PA will be significant, i.e., the cost of providing health insurance to the employee and possibly their family. All NPs and PAs must have malpractice insurance, and this will be paid for by the physician's

practice. Nurse practitioners and physician assistants all require continuing medical education, such as attending medical conferences and purchasing journals. A certain amount of start-up money also will be needed for physical materials such as computers, desks, chairs, etc. Reimbursement of mileage also should be considered if they have to travel between practice locations. All of these expenses need to be considered in your decision-making process.

### *Medicare Billing*

NPs and PAs play an increasingly important role in modern day medicine and generate revenue for the practice. The billing of a NP or PA in the office is relatively straightforward. Physician assistants and nurse practitioners must have a UPIN number for billing Medicare and private insurers. There are two ways NPs or PAs may bill insurers:

- 1) An independent billing under the UPIN number of the NP or PA. The billing rate is generally 85% of the value a physician would bill. This type of billing occurs when the NP or PA bills without the physician being present in the office.
- 2) An “incident to” billing occurs when the physician has previously seen, evaluated, and planned the care for a particular medical problem. The NP or PA is then able to subsequently see the patient in the office for that diagnosis and bill under the physician’s UPIN number and therefore receive maximum reimbursement. In order to be able to bill in this manner the physician must be in the office.

Hospital billing for NPs and PAs closely follows the above principles, however there are additional variables that have to be assessed. In hospitals, NPs and PAs see consults, rounds for established patients, assist in the OR, provide critical care, and perform invasive procedures. To bill under the physician’s UPIN number, the physician must be present in the hospital. The rules for post-operative billing are the same as for physicians in the global 90 day post-operative period, although it is important to note that these parameters are currently undergoing changes.

### *Operating Room*

Physician assistants have a well-established billing history as operating room assistants. PAs bill 85% of the traditional assistant physician fee, but it is not as straightforward for nurse practitioners to bill in the operating room. NPs must first become a registered nurse first assistant (RNFA) before they can bill an assistant fee. The governing bodies of each state establish the scope of procedures that NPs or PAs can perform. PAs can bill under their UPIN numbers for procedures, but the majority of procedures are billed under the physician’s UPIN number if the physician is present during the procedure.

### *Medicaid and Private Insurers*

Private Insurers and Medicaid billing for nurse practitioners or physician assistants generally follow the same principles as Medicare billing. There will be some differences however, and the physician’s practice should analyze these carefully for compliance and maximum reimbursement. Whenever appropriate, billing should be done under the physician’s UPIN

number to maximize reimbursement.

## ***Conclusion***

The impact of NPs and PAs on modern day medicine is rapidly evolving. Over recent years, an increasing number have been added to practices, especially nurse practitioners who have assumed additional responsibilities and latitudes. The business aspect of vascular surgery is becoming more complex, costly, and time-consuming. In the constant struggle between maintaining the highest standards of patient care and the perpetual pull and tug of increasing productivity to offset practice expenses, the addition of PAs and NPs can and will, if properly selected and mentored, significantly improve this delicate balance. Vascular surgeons and NPs and PAs working together can result in economic and physician quality of life benefits and most importantly, improved patient outcomes and satisfaction.

<sup>a</sup>Columbia Surgical Associates, Columbia, Missouri. <sup>b</sup>Montgomery Vascular Surgery, Montgomery, Alabama. <sup>c</sup>MultiCare Vascular Services – Tacoma, Tacoma, Washington. <sup>d</sup>Summit Vascular Specialists, Akron, Ohio

---

<sup>i</sup> Southey D, et al. Continuity of care by cardiothoracic nurse practitioners: impact on outcome. *Asian Cardiovasc Thorac Ann.* 2014 Oct; 22(8): 944-7.

<sup>ii</sup> Sirleaf M, et al. Comparison of procedural complications between resident physicians and advanced clinical providers. *J Trauma Acute Care Surg.* 2014 Jul; 77(1): 143-7.

<sup>iii</sup> Donker JM, et al. A novel finding: the effect of nurse practitioners on the relation to quality of life, anxiety, and depressive symptoms in vascular surgery. *Ann Vasc Surg.* 2014 Apr; 28(3): 644-50.

<sup>iv</sup> Knaus VL, et al. Vascular nurse practitioner: a collaborative practice role in the acute care setting. *J Vasc Nurs.* 1996 Jun; 14(2); 40-4.

<sup>v</sup> Fitzgerald DM. Vascular nurse practitioner: development of an innovative role for the 21<sup>st</sup> century. *J Vasc Nurs.* 1998 Dec; 16(4)87-92.

<sup>vi</sup> The American Association of Nurse Practitioners:  
<http://www.aanp.org/all-about-nps/what-is-an-np>

<sup>vii</sup> The American Association of Nurse Practitioners:  
<http://www.aanp.org/all-about-nps/what-is-an-np>

<sup>viii</sup> The American Association of Surgical Physician Assistants:  
<https://aaspa.com/page.asp?tid=98&name=Education--Licensing&navid=18>