Physician assistants (PAs) are health care professionals licensed to practice medicine under physician supervision. The PA profession has become well-established in the United States (Table 1). Currently, more than 35,000 PAs practice in the United States and its surrounding territories, with legislation to practice in all but one state.1 PAs are increasingly common in hospitals and outpatient settings where they take medical histories, perform physical examinations, order and interpret laboratory tests, diagnose and treat illnesses, assist in surgery, and counsel patients.2

A PA may also be referred to as a physician extender or midlevel provider. Nurse practitioners (Sidebar) are included in the classification of physician extenders as well. However, this article focuses specifically on the PA’s educational background, employment opportunities and responsibilities, and the collaboration between the physician and PA. Regulatory requirements and reimbursement and professional liability issues are also discussed.

EDUCATIONAL BACKGROUND

PAs undergo intensive training accredited by the Commission on Accreditation of Allied Health Education Programs (previously the American Medical Association’s Committee on Allied Health Education and Accreditation) (Chicago, IL). According to the Fifteenth Annual Report on Physician Assistant Education Programs in the United States,3 107 PA programs are available in the United States; many of these programs are affiliated with major medical schools.3

By definition, PAs are “dependent” practitioners who require a well-defined relationship with their physician counterparts.4 Because of this close working relationship, PAs are educated in a medical model designed to complement physician training. PA programs are typically 2 years in length, with the first year of PA training structured similar to the first 2 years of medical school. PA students learn basic sciences and general medicine over this 12-month period. The second year of PA training, which is comprised of 4- to 6-week rotations in each of the major areas of medicine, is nearly identical to the third year of medical school. In addition, PA students can usually select one or more electives in a medical or surgical subspecialty. Some universities also require a research component, and some PA students must complete a formal master’s thesis.

The typical applicant to a PA program has a bachelor’s degree in a premedical field and meets many of the same requirements as a medical school applicant. Most PA applicants have several years of health care experience, making them “second career” students. However, such higher levels of health care experience can give the PA student a head start in understanding medicine and terminology, as well as how to work with a health care team and patient contact.

After graduation, PAs enter into all types of practice, including medical subspecialties (Figure 1). Some PAs elect to continue their training with postgraduate residency programs, which provide more specific training and experience in a specialty but are not required for licensure or employment.

National Commission on Certification of Physician Assistants

To be physician assistant–certified (PA-C) means that the person who holds the title has met the defined study criteria and has undergone testing by the National Commission on Certification of Physician Assistants (NCCPA) (Norcross, GA). Most states require practicing PAs to undergo this formal certification.
NCCPA is an independent organization, and the commissioners represent a number of different medical professional organizations, such as the American College of Surgeons (Chicago, IL), the American Academy of Family Physicians (Leawood, KS), the American Academy of Pediatrics (Elk Grove Village, IL), and the American College of Physicians (Philadelphia, PA). The NCCPA is independent of the PA professional organization, the American Academy of Physician Assistants (AAPA) (Alexandria, VA). To maintain PA-C status, a graduate PA must log 100 hours of continuing medical education every 2 years and pass a recertification examination every 6 years.

EMPLOYMENT OPPORTUNITIES

PAs are found in all areas of medicine. More than 50% of all PAs are involved in primary care medicine, and approximately 19% of PAs work in surgery or surgical subspecialties. PAs can practice in a variety of settings, even in locum tenens situations. Figure 2 demonstrates the distribution of PAs throughout different practice settings.

PAs are in strong demand in the current health care marketplace and graduates are usually able to choose from several job offers. Starting salaries for new PA graduates range between $50,000 and $60,000, with the higher salaries ($70,000 to $75,000) reserved for graduates who choose surgical specialties or who accept jobs in certain geographic areas. The AAPA Web site at www.aapa.org includes a salary profile service that provides specific information concerning geographic area and specialty.

PRACTICE SETTINGS AND RESPONSIBILITIES

Once a PA has been hired, a variety of successful models help incorporate the PA into an existing practice. The PA’s duties are usually determined according to the practice’s specific needs, but the following models can help guide a prospective employer.

Office-Based Care

In some offices, the PA sees all new patients first and performs a comprehensive history and physical examination. The PA then presents the case to the physician, and the physician can meet the patient and confirm the PA’s findings in a very short amount of time. Patients are typically satisfied with this system because they feel that they received a great deal of attention from the PA and still “saw the doctor.” In other models, the physician sees the patient the first time, and the PA performs the follow-up visits.

Emergency Department Care

PAs are becoming a popular way to staff many emergency departments (EDs). Patients are initially triaged by a nurse. Next, patients are either sent to a trauma section to be seen by a physician or physician/PA team, or patients are sent to an urgent care section where a PA sees patients under the indirect supervision of the ED physicians. PAs have been shown to be very effective and competent in both the urgent care and the acute trauma settings. Kaups et al demonstrated equal

<table>
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<th>Table 1. Highlights from the 1998 American Association for Physician Assistants Census</th>
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<tr>
<td>Total number of physician assistants in United States</td>
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<tr>
<td>Number practicing clinically</td>
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<tr>
<td>Percent female</td>
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<tr>
<td>Mean years in practice</td>
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<tr>
<td>Percent working in cities with less than 50,000 inhabitants</td>
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<tr>
<td>Percent seeing Medicare patients</td>
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<td>Percent who work on call schedules</td>
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<td>Mean income</td>
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levels of competence between PAs, resident physicians, and attending physicians in performing emergent procedures, and concluded that PAs can be used to safely extend high-quality specialty care to patients.

**Inpatient Care**

Many tertiary care hospitals employ hospitalist physicians to manage inpatient care for the patient community physicians. A variation of this theme is to employ PAs to act as permanent “house officers” and assist the community physicians with their inpatients. These PAs make rounds, write daily progress notes and orders, and communicate with the attending physicians to help deliver inpatient care more smoothly and efficiently. The introduction of PAs into one inpatient setting (a nursing home) was shown to decrease the number of annual hospital admissions by 38% and the total number of hospital days per 1000 patient years by 68.6%, while saving more than $96,000.

**Teaching Hospitals**

Cuts in graduate medical education funding with the Balanced Budget Act of 1997 have forced many physician residency programs, especially surgical specialties, to reduce the number of in-house residents. In turn, hospitals are left with large personnel shortages. Some hospitals have chosen to establish PA residency programs to meet their employee needs. PAs who continue postgraduate training can elect to enter such a residency program, which usually takes 1 year to complete.

Miller et al examined the result of using PAs in the ED setting following cutbacks in resident physician coverage. The study demonstrated that after the introduction of PAs, several outcome measures were improved. Transfer time to the operating room decreased by 43%, transfer time to the intensive care unit decreased by 51%, and transfer time to the hospital floor decreased by 20%. The length of stay for admissions decreased by 13%, and the length of stay for neurotrauma intensive care unit patients decreased by 33%.

**COLLABORATION WITH THE PHYSICIAN**

The level of independence with which the PA practices within the physician/PA team usually evolves as the partners work together. The team collectively decides on the PA’s duties. In general, a PA and a physician may
see many of the same types of patients. Cases handled by physicians are generally more complicated or require a level of care that is not a routine part of the PAs' scope of practice. Unusual or hard-to-manage cases are typically referred to the physician or handled with close consultation between the PA, the physician, and the patient. PAs are taught to know their limits and to call physicians appropriately; this recognition is an important part of PA training.

Physicians who have hired PAs comment that, in the current environment of managed care, the PA allows the provision of high-quality care in a very cost-effective manner. Physicians may bill Medicare and traditional insurance companies for services rendered by the PA. The billable allowances usually exceed the PA's salary, therefore the addition of a PA is financially profitable as well. In addition, PAs are traditionally good at patient education, and thus bring another attractive skill to the physician practice. Patient satisfaction is high among those who interact with PAs, and improved communication with other health care providers often develops. In many surgical practices, the PA is the team member who makes rounds each day, closely monitoring the patients and interacting with the nursing and other allied health staff. In these authors' experiences, nurses routinely comment that communication between physicians and nurses is positively influenced by the introduction of a PA.

REGULATORY REQUIREMENTS

PAs are regulated by each state under licensure, state certification, or registration. These types of regulations grant PAs the permission to practice in the issuing state. In many states, regulation is overseen by the same board that provides licensure to physicians. A few states have separate PA medical boards.

PA practice acts vary among states, but all states require the PA to practice under the supervision of a physician and within the specialty of that physician. PA prescription privileges, when granted, are also different in each state. For example, some states require that PAs obtain their own Drug Enforcement Administration number; other states require that PAs have their own prescription pad printed with both the PA's name as well as the name of the supervising physician; and in other states, the prescription rules may be more or less elaborate. The number ratio of supervising physicians to PAs is also state specific, with some states allowing a physician to supervise more than one PA.

The supervision requirements of a state may also specify direct or indirect physician supervision. The terms of supervision are described in each practice act and may vary. For some PA activities the physician may need to be physically present, whereas a telephone communication between the physician and PA can also constitute appropriate supervision. Many states require that a PA has an alternate supervising physician to provide guidance in the primary supervising physician's absence (eg, vacation, continuing medical education activities, illness or injury).

Before adding a PA to the health care team, a copy of the PA practice act should be obtained from the state's professional regulatory commission. Questions should be directed to the state's PA academy. Each state academy office can be reached via the AAPA Web site.

REIMBURSEMENT

Types of Reimbursement

PA services are generally covered by most insurance plans, although PAs do not bill directly for any services rendered. Instead, the employing physician or hospital bills for these services.

Inpatient services. Inpatient services provided by PA house staff are reimbursed under the global charges paid to hospitals according to diagnosis-related group schedules. Separate billing of medical services provided directly by the physician or delegated by the physician to a PA may also be billed. The physician/PA team should investigate whether billing of third-party payers for services rendered is permitted.

Outpatient services. Outpatient services provided by PAs are usually covered for reimbursement; however, certain plans have specific rules regarding eligibility. The key element is how the billing issue is presented to the third-party payer. PAs by name are not necessarily covered by a particular health insurance policy, but services provided under the supervising physician are usually covered. Therefore, if a physician has delegated a service to be performed by a PA, the physician can bill for the service.

Third-Party Payment

Because of the specific details of each insurance plan, billing and insurance coverage issues can become quite involved. Government-sponsored insurance (ie, Medicare, Medicaid) covers PA services, even in rural health clinics. However, private insurance companies are free to set their own policies, which vary considerably. Some guidelines for PA billing in a variety of insurance plans are presented in the following discussion.

Government sponsored insurance. Both Medicare and Medicaid cover PA services.

Medicare. Medicare insurance is classified into two parts. Medicare Part A is reimbursed to institutional providers. PAs are covered in Part A in the sense that
they are part of the allowable institutional expense. Medicare Part B pays for physician services (which may be rendered in hospitals, private offices, nursing homes, or a patient’s home) and services that are incidental to care provided by the physician.

Under Medicare, PAs are recognized under the fee-for-service, cost-based reimbursement, and capitation payment options. For Medicare Part A, certain parameters such as the degree of physician supervision are utilized to determine the rate and extent of coverage for the three reimbursement options. For example, in the fee-for-service option, PAs are covered differently than physicians, and this coverage varies with the location of the service. For PA care rendered on a hospital ward, Medicare Part B provides reimbursement at a rate of 75% of the amount a physician can charge. In a rural health professional shortage area or in a nursing home, the rate of reimbursement for PA’s is 85%.18 PAs may also be reimbursed as first assistants in surgery at a rate of 65% of a physician charge. These Medicare Part B settings are the only manner in which a PA may be reimbursed in a direct fashion.

PA services are also billed indirectly by Medicare, incidental to the practice’s services. Indirect billing includes services commonly provided without charge or already included in a physician’s bill, services commonly given in a physician’s office, and services necessary to the care provided and performed under the direct supervision of the physician. The term direct supervision does not mean that the physician is physically present in the room during the service, but that the physician is immediately available to provide direct assistance as necessary (ie, present in the office area).

Medicaid. In Medicaid, each state has the option to authorize PA coverage. Some states pay PAs at a physician’s rate whereas others pay at a discounted rate. Uniformity is only reserved for areas that are federally designated as rural health clinics. In this situation, the state’s program must cover PA services at the same rate as that of a physician.

Medicare health maintenance organizations. Medicare health maintenance organizations (HMOs) are another government insurance option. Office visits to a PA are covered. In addition, the cost of the PA’s salary and subsequent benefits are considered “expected costs” in the HMO’s calculation of overhead.18

Rural health professional shortage area. Rural health clinics are reimbursed in a cost-based fashion. Therefore, PA visits are covered when the PA acts according to state rules and regulations.

Private insurance programs. Although some states have legislated that private insurance companies cannot deny payment for a service provided by a PA, much variation exists among the various insurance companies. Because of this great variation as well as the constant changes in the companies’ coverage policies, specific coverage information should be obtained from the individual insurance company.

PROFESSIONAL LIABILITY

Like physicians, PAs must be covered by professional liability insurance. The monetary limits should be equal to those limits set by the PA’s supervising physician. Most employers cover the cost of malpractice insurance as part of the benefit package. PAs are often added to the employer’s insurance policy, which is often a less expensive alternative.

There are two main types of liability insurance policies available to PAs: occurrence policies and claims-made policies. An occurrence policy offers the broadest coverage available. An occurrence policy covers incidents that occur during the time that the policy is active without regard to when claims are made. In contrast, claims-made policy coverage is more limited: the medical malpractice incident and the malpractice report must both occur during the time of the policy. Claims-made policies are acceptable, but should also include a tail (ie, an extended reporting endorsement that increases the breadth of the claims-made policy). With policies that contain tails, retroactive insurance can be purchased for prior acts that have not yet been reported. In turn, the

Table 2. Select Physician Assistant Web Sites

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<tr>
<td>American Academy of Physician Assistants</td>
<td><a href="http://www.aapa.org">www.aapa.org</a></td>
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<tr>
<td>Association of Neurosurgical Physicians Assistants</td>
<td><a href="http://www.anspa.org">www.anspa.org</a></td>
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<tr>
<td>Association of Physician Assistants in Cardiovascular Surgery</td>
<td><a href="http://www.apacvs.org">www.apacvs.org</a></td>
</tr>
<tr>
<td>Finch University of Health Sciences/The Chicago Medical School Physician Assistant Program</td>
<td><a href="http://www.finchem.edu">www.finchem.edu</a></td>
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<tr>
<td>National Commission on Certification of Physician Assistants</td>
<td><a href="http://www.nccpa.net">www.nccpa.net</a></td>
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<tr>
<td>Physician Assistants in Orthopaedic Surgery</td>
<td><a href="http://www.paos.org">www.paos.org</a></td>
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<tr>
<td>Society of Emergency Medicine Physician Assistants</td>
<td><a href="http://www.sempa.org">www.sempa.org</a></td>
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<tr>
<td>Student Academy of the American Academy of Physician Assistants</td>
<td><a href="http://www.saaapa.aapa.org">www.saaapa.aapa.org</a></td>
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PA is covered in malpractice cases reported after the PA is no longer with the practice. An occurrence policy may be preferable to a claims-made policy because of the additional need for tail coverage. Separate occurrence insurance for the PA can also be purchased through the AAPA and includes a discounted fee for PAs who are employed part-time.

RESOURCES

In addition to the AAPA’s extensive Web site, many other sources offer information concerning PA education and employment. Table 2 lists Web sites where more specific information about PA programs can be obtained.

SUMMARY

A PA can be a valuable addition to almost any general or specialty practice or clinical setting. PA programs must be accredited by the Commission on Accreditation of Allied Health Education Programs in order to graduate students, which assures an appropriate educational background. Most states require that the PA is certified by the NCCPA; the PA is responsible for maintaining this certification. PAs are dependent practitioners, and the supervising physicians delineate the scope of the PAs’ practice as allowed by state law. The working relationship between a PA and the supervising physician evolves over time. The initial investment in training of the PA to practice specifications can prove beneficial to a practice in many ways. Clearly, a PA can be a significant contributing factor to a physician’s practice.

REFERENCES