Physician assistants in the United States

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The United States has since the 1960s developed a cadre of physician assistants to work in primary care. They mainly work semi-autonomously in association with individual doctors, but an increasing number work in hospitals. They seem to be well accepted by both doctors and patients and can reasonably expect to take on any unfilled roles for which their training qualifies them

During the mid-1960s a new cadre of providers of medical care, physician assistants, was developed in the United States in an effort to relieve a nationwide shortage of doctors in primary care and to increase access to health care for people in underserved areas. The first trainees were highly skilled military paramedics. Today, there are more than 44 000 physician assistants in America. Internationally, the physician assistant model has been in place since 1992 in the Canadian forces, and a somewhat comparable profession exists in India. In different countries, however—Germany, for example—a similar name may be used for a substantially different cadre.

The concept of a paramedical healthcare provider did not originate in the United States. In the 17th century, medical care was provided in Europe by "feldshers," and the Russian army adopted the model a century later. In the 1960s, China trained more than 1.3 million "barefoot doctors" to improve the delivery of health care.[1 2] Recently several countries have become interested in adapting the concept of physician assistants to their needs. In the United Kingdom interest in the concept is increasing, as shown by the call by the NHS and the Royal College of Physicians for an early start of pilot projects.[3 4] We describe how physician assistants are trained and the role they play in American medicine.

Summary points

- Physician assistants are interdependent semi-autonomous clinicians practising in partnership with physicians, and are found in almost every medical and surgical specialty
- They perform similar tasks to their physician partners, including examination, diagnosis, diagnostic testing, treatment (including referral), and prescribing
- Research shows them to be capable of giving care comparable to that of physicians for similar services
- Physician assistants have improved access to health care for populations in rural, inner city, and other medically underserved areas
- With their training modified as needed to integrate with local health systems, physician assistants are a viable alternative to physicians in areas with shortages of doctors, such as the United Kingdom

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Physician assistants' role

Physician assistants are clinicians who are licensed throughout the United States to practise medicine in association with physicians. They perform many of the tasks previously done solely by their physician partners, including examination, diagnosis, and carrying out investigations, as well as treatment and prescribing. All physician assistants must be associated with a physician and must practise in an interdependent role, described as "negotiated performance autonomy."[5] They are not to be confused with "medical assistants," who in the United States are support workers.

Physician assistants are not independent practitioners but practice-focused autonomous professionals delivering care in partnership with physicians, in a role described as "negotiated performance autonomy."[5] This relationship allows them to staff satellite clinic offices, provide on-call services in the practice, and deliver care in rural areas, as in most states the physician partner need not be physically present for the physician assistant to practise. They may work as house staff in large academic teaching centres, replacing physicians whose posts are no longer funded, and they also serve as commissioned officers in all branches of the American armed forces. They have demonstrated social responsiveness by focusing on primary care practice, thus fulfilling the original intent of the profession's founders—to improve access to health care for populations in rural, inner city, and other medically underserved areas.

Numerous studies have shown that the quality of care given by physician assistants is at the level of that given by physicians in comparable situations, with high levels of patient satisfaction.[6–11] Actuarial data do not

To improve the delivery of health care, China trained "barefoot doctors"—another type of paramedical healthcare provider

show any increased liability as a result of using physician assistants.[12] A growing body of research and extensive clinical experience shows that they are accepted by both patients and doctors and that their performance in terms of quality of care, expanded access, and cost effectiveness is satisfactory.[13–20]

Training and certification

Physician assistants spend an average of 25 months studying an intensive core curriculum. This resembles a shortened form of traditional medical education, and emphasises a primary care, generalist approach. Most students have had four years of medical experience before they start their training.[21] The United States has 130 training programmes in universities, medical schools, teaching hospitals, colleges, and the armed forces. In 2001, about 4500 physician assistants graduated.[21] Competition for training is intense—in 2001 there were five applications for every place.[21 22] On graduation from accredited training physician assistants must pass the national certifying examination of the National Commission on Certification of Physician Assistants, an independent accrediting agency, after which they must complete 100 hours of continuing medical education every two years and pass a recertification examination every six years.

Clinical duties

The licensing boards in 50 states and the District of Columbia recognise physician assistants as healthcare practitioners authorised to perform diagnostic and therapeutic tasks delegated to them by physicians. From a legal perspective, enabling legislation empowers physician assistants to perform any clinical task within the scope of practice of, and sanctioned by, their supervising physicians. This wide latitude acknowledges the broad basis of physician assistants' abilities and recognises their physician partners as the best judges of individual physician assistants' knowledge and skills.

This conceptual framework has led to physician assistants providing virtually every clinical service, excluding primary responsibility for major surgery.[14 16 18] This does not mean that every physician assistant is qualified to provide every service, even though they may be able to do so "legally."

Physician assistants treat most primary care illnesses on their own without direct supervision by their physician partner. There are no "physician patients" as opposed to "physician assistant patients." Physician assistants routinely deal with uncomplicated sprains, strains, hypertension, bronchitis, depression, allergies, asthma, gynaecological problems, family planning, and trauma.

Physician assistants in community practice typically have a regular schedule of patients according to the needs of the particular practice—interviewing, examining, evaluating, diagnosing, and treating the vast majority of presenting patients—without the physician's presence in the room.[16] This allows the physician to focus on the most difficult and complex cases, while still being available for consultation.

In hospitals, physician assistants provide continuity of care for patients. This may take the form of attending private patients, or filling the role of house officer. The demand for physician assistant house officers continues to expand with the shrinking supply of physicians for such posts. They are authorised to prescribe in 47 states, in the District of Columbia, in Guam, and in all branches of the federal government (for example, the armed forces, the Department of Veterans Affairs).

Specialty practice

Most physician assistants (55% of graduates in the past 15 years[15 22]) continue to practise in primary care, and studies have conservatively estimated that in such roles physician assistants can provide 80% or more of the services previously provided only by physicians—at the same level of quality.[21 23] They can be found in almost every medical and surgical specialty—both in broad specialties such as family medicine and general surgery and in subspecialties like cardiothoracic surgery, interventional neuroradiology, forensic medicine, occupational health, and dermatology. Specialised procedures performed by physician assistants tend to be specific to a particular clinical field or setting, not unlike those undertaken by physicians and commensurate with adequate formal or informal postgraduate training. Examples include insertion of central access lines and chest tubes, invasive diagnostic procedures, ambulatory

A typical case

A 65 year old man with chest pain is seen by a physician assistant who, after a thorough history and physical examination, orders and interprets appropriate tests, such as chest radiographs and an electrocardiogram. If necessary the patient is then either referred to the supervising physician or, in some practices, directly to hospital.

There is no definite point at which the physician must take over. Clinical responsibilities vary depending on physician assistants' experience, postgraduate training, and the confidence the physician partner, the clinic, or the institution have in them.

surgery, harvesting of saphenous veins for bypass procedures, and many others.

Utilisation

Physicians who work with physician assistants claim that the advantages outweigh the disadvantages. The physicians can work fewer hours, both in the office and on call, and as they are able to delegate many tasks they can provide better services. Physician assistants commonly share on-call time, and routinely run satellite clinics in underserved areas.

Physician assistants allow the physician to have a colleague close at hand. The relationship creates a bond between the physician assistant and physician that is positive for both the practitioners and their patients. Sometimes physician assistants may be a slight encumbrance, requiring an inconvenient amount of the physicians' time, especially in the early stages of the partnership. Physicians are ultimately responsible for their assistants' work and must provide an adequate educational experience, conduct chart reviews, and ensure regular oversight of their clinical activities.

Comparison with nurse practitioners

On a daily basis, in the United States physician assistants and nurse practitioners function in similar roles. Both can diagnose, treat, and prescribe, but the training of physician assistants is generalist in nature and modelled on medical school curriculums. All physician assistants learn primary care and rotate through the major specialties while in training. Nurse practitioners, on the other hand, have traditionally been trained in one specialty (paediatrics, women's health, etc). Recently, family practice as a specialty has gained in popularity. Physician assistants are employed more often as house officers within the hospital setting than are nurse practitioners; surgery and its subspecialties are the most popular in-house specialties. Physician assistants are also more involved in emergency care than are nurse practitioners.

Politically, physician assistants consider themselves to be a part of medicine as a member of the physician-led team, and some physician assistants sit on physicians' state medical boards. In contrast, nurse practitioners come from a nursing background and feel closest to nursing. Most state legislation for nurse practitioners sets up the state board of nursing as their regulatory body. Although both groups seek to be part of the medical care team, most nurse practitioners do not feel a political need to be tied to a physician. This has led some nurse practitioners to seek independent practice, which physician assistants have not done. It is the setting and the specialty that determines how these two professions practise, rather than legislative or professional regulations.

The future

Although it is difficult to predict how physician assistants will further evolve and progress, they can reasonably expect to take on any unfilled roles for which their training qualifies them. Undoubtedly, demand for health care will continue to escalate as the population ages and new treatments and techniques are developed and the inexorable development of new forms of treatment and new techniques. Thus, the position of physician assistants in the United States seems secure and growing—the numbers of practising physician assistants are projected to reach 53 200 by 2005 and 79 000 by 2015.[14 15] The evolution of the profession, as it matures and barriers to practice continue to be removed, is likely to involve a degree of innovation not yet conceptualised. With their continuing commitment to competency based primary care, improved access to care, and dynamic lifelong learning, physician assistants are well positioned to remain integral to the 21st century US healthcare network.

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