

The Pathologist Assistant: First Year Job Experiences of a New Paramedical Career

EDWARD B. DAVIS, MA, *Boston, Mass*, JOSEPH C. PARKER, JR., MD, and NORMAN F. GERARD, PA,[†] *Lexington, Ky*

This paper was not one of the Symposium on *Health Care Delivery Today: Physician Support Personnel*. Rather it was submitted for consideration by the *Southern Medical Journal*. Since it evaluated the physician's-assistant in a nonclinical area, it seemed singularly appropriate to include it with the papers from the Symposium, to which the author graciously agreed.

For many years pathologists have recognized the need for trained personnel to assist them in the laboratory, as illustrated by the role played by medical technologists in clinical pathology and histology. In the autopsy room the diener, a vaguely defined position which usually is filled only temporarily by an unskilled individual, has traditionally done most of the tasks dealing with evisceration of the body, maintenance of the area, and various related and sometimes unrelated odd jobs that vary with the existing situation.

More and more demands are being placed upon the pathologist, resulting in less time for the continuing requirement for thorough postmortem examinations. Trained individuals to do autopsies often are not available, reflecting the general manpower shortage in all fields of medicine. To meet the responsibilities of the autopsy to the deceased's family, the general public, and the medical profession itself, a more sophisticated assistant analogous to the physician's assistant is desired for the autopsy room. This individual should be formally trained not only to perform like the experienced diener, but also to carry the postmortem examination to a more completed stage under the supervision of his directing pathologist, giving the latter more time for other activities. Such a program was established

in the Department of Pathology at Duke University Medical Center in 1969 through the Department of Veterans' Affairs in Washington, DC. Its objective was the pathologist assistant who could assist the pathologist in performing autopsies; collecting associated cultures, toxicologic specimens and other special specimens; insuring the orderliness of related clinical records; doing the required photography; assuming responsibility of insuring that the pathologist's directions are carried out; and supervising subordinate personnel directly related to the autopsy suite (dieners).^{1,2} This specialized role now emerging in medicine has the potential of reducing the work load for the pathologist in the autopsy room by alleviating him of much routine work.

On June 30, 1970, 3 pathologist assistants (PAs) graduated from the intensive 12 month program at Duke University Medical Center. These first PAs in the country began work in separate departments of pathology in different areas of the United States. All 3 have been included in this study which includes the observation of one PA at a large urban referral hospital (Mr. A) and subsequent interviews with the other 2 (Mr. B and Mr. C) at separate university medical centers. The accumulated information forms the basis of this report—a preliminary evaluation to begin to clarify the proper role and orientation of this new paramedical career.

The Initial Training Program for the Pathologist Assistant

All 3 pathologist assistants met the following admission requirements for the

[†]From the Department of Sociology, Boston College, and the Departments of Pathology of the New England Deaconess Hospital, Boston, Mass, and the University of Kentucky Medical Center, Lexington, Ky.

Mr. Norman Gerard is a graduate of the pathologist assistant program at Duke University Medical Center. Dr. Parker was a member of the Department of Pathology at Duke University Medical Center.

program at Duke University Medical Center.^{1,2}

(1) High school graduate with a minimum of 2 years' experience as a hospital corpsman or LPN. Preference will be given to graduates of 4 year accredited colleges and 2 year accredited community colleges.

(2) Completion of an application form.

(3) Three character references preferably from a biology professor, if applicable, and 2 persons who are not related to the individual.

(4) All official high school or college transcripts.

(5) Personal interviews when feasible.

The background of the PAs was varied. Mr. A, the one observed during this study, was a high school graduate with 4 years' experience as a Navy medical corpsman. Mr. B had 3 years of college education toward a bachelor's degree in biology and chemistry when he entered the program. Mr. C had completed 4 years of college and had taught for a year in high school.

The 12 month training program consisted of (Table 1): an initial period of 3 months (1st quarter) devoted to classroom work in the basic sciences; a second 3 month period (2nd quarter) with mandatory rotations through disciplines closely allied to pathology, including one month in histology, one in medical photography, and one in microbiology; and 6 months' (3rd and 4th quarters) rotation on the autopsy service with the house staff of the Medical Center, doing both

gross and microscopic work under the supervision of the staff of the Department of Pathology. In addition, the student participated in the Core Pathology course for the first year medical students, a special course in Principles of Pathology, and courses in Systemic Pathology. Each PA student did about 15 complete postmortem examinations, including clinical summaries, gross dissections, histologic examinations, and final summaries and interpretations under supervision.^{1,2}

The First Year on-the-Job Performance of the Pathologist Assistants

Each PA worked in slightly different environments, emphasizing various tasks dependent upon the existing situation in his institution (Table 2). For example, Mr. A was employed at a large urban referral hospital with an active pathology residency program and performed as a well experienced diener doing eviscerations and gross anatomic dissections, and obtaining appropriate sections for microscopic examination by the staff pathologist who completed the postmortem examination. In addition, Mr. A was responsible for the photographic work of gross specimens and the maintenance of the autopsy room and cutting room for surgical pathology. He supervised one diener.

On the other hand, Mr. B was hired by a large university medical center to do postmortem examinations exclusively,

TABLE 1
ACADEMIC CURRICULUM FOR THE PATHOLOGIST ASSISTANT (1969-1970)

Course	Quarter Period (3 Mos)	Lecture Hours	Laboratory Hours	On-Job Train- ing Hours	Total Hours
Anatomy	1st	48	20	—	68
Physiology	1st	48	—	—	48
Radiation safety	1st	4	—	—	4
Radiological technics	1st	6	6	—	12
Bacteriology	1st & 2nd	24	48	140	212
Histology	1st & 2nd	36	108	140	284
Medical photography	2nd	12	12	140	164
Parasitology	3rd	16	—	—	16
Principles of pathology	3rd	48	—	—	48
Autopsy service	3rd & 4th	—	—	619	619
Core pathology	3rd & 4th	60	36	—	96
Systemic pathology	4th	48	96	—	144
Total	All	350	326	1,039	1,715

TABLE 2
WORK PATTERNS OF THE PATHOLOGIST ASSISTANT (PA)

PA	Percent of Work Time					
	<i>Dienering*</i> (%)	<i>Completing Autopsies</i> (%)	<i>Teaching</i> (%)	<i>Photography</i> (%)	<i>Supervising</i> (%)	<i>Misc.**</i> (%)
Mr. A	5	1	2	70	20	2
Mr. B	8	80	2	1	2	7
Mr. C	—	7	67	1	—	25

*Dienering—assisting with the autopsy, cleaning and closing the body, cleaning the autopsy area.

**Misc.—filing slides, maintenance of cryostats, storing and handling gross specimens, coding diagnoses, preparing and organizing gross museum specimens.

but unlike Mr. A did complete autopsy studies under a pathologist's supervision, which included the provisional anatomic diagnoses, microscopic examinations, and the final summaries and interpretations. The small house staff at this center enabled Mr. B to rotate with the pathology residents and provided the opportunity to participate quite actively in the autopsy program. He had no other significant responsibilities.

Mr. C also has been at a university medical center, but was used mainly in a teaching capacity. Not only did he instruct student PAs, but was responsible for teaching gross autopsy technics to beginning residents and interns. Mr. C assisted the house staff on some of their autopsies, but did few complete autopsies under the supervision of the staff pathologists. He had no significant supervisory responsibilities as had Mr. A.

The performance of each PA in his respective environment has been considered adequate to excellent by the associated pathologists. Even though they adapted to their various situations, Mr. A and Mr. C still desired more autopsy experience as was had by Mr. B. This trend undoubtedly reflected the major orientation toward complete autopsies that the group had in its training program.

Comment

The first 3 pathologist assistants from the Duke University Medical Center program have practiced their technical specialty for over a year at this time. All are satisfied with their chosen career, but feel that certain improvements, some of which have already been implemented in subsequent PA classes at the Duke Uni-

versity Medical Center, are desirable, such as more time to assimilate the tremendous amount of medical information and more on-the-job experience with the autopsy service. The heavy emphasis in the current group's program on the *complete* postmortem examination encouraged each PA to seek this same degree of autopsy performance in his initial job. Only Mr. B achieved this objective, due mainly to the small number of residents available in his hospital to do autopsies. Certainly in departments of pathology where there are few or no individuals to compete with the PA for autopsies, he easily can achieve a prominent role for himself in the autopsy service, performing complete postmortem examinations under the close supervision of the responsible pathologist. Both residents and staff pathologists on autopsy services have expressed keen interest in the use of pathologist assistants, especially in busy private practices in pathology.

Even at this early stage, the PA program has accomplished its initial objective of providing a well trained individual to assist the busy pathologist in his autopsy service. Yet, other ways of using these persons have become apparent, including supervising and maintaining the autopsy room and surgical cutting room, teaching autopsy technics, maintaining stability and continuity in the handling of gross tissues in the ever-changing large department of pathology, aiding in upgrading the photographic work, and acting as the desperately needed "extra hands" in anatomic pathology. Even though the PA needs supervision, he is adaptable and can be used in a variety of ways depending upon the medical environment in which he works.

Physicians must accept pathologist assistants as special technologists before they can begin to recognize their identity. The training of these individuals should be controlled and supervised to avoid inadequate and inferior programs such as plagued the medical profession in previous years.³ Credentials and guidelines for this new assistant role should be established as quickly as possible to prevent an identity crisis for the pathologist assistant. Some suggestions include an intensive 18 month broad educational experience that continues the previous exposure to the basic sciences and other related areas of anatomic pathology, but places less emphasis on the performance of *complete* autopsies and more emphasis on other responsibilities in anatomic pathology, such as coding diagnoses and examining gross autopsy and surgical specimens under supervision. The procedure should enable each pathologist assistant to become flexible and adaptable enough to do many different jobs in the field of anatomic pathology with proper professional guidance. Training programs should be standardized, controlled and supervised by responsible agencies, as the American Medical Association or the American Society of Clinical Pathologists, so that eventual certification by the sponsoring educational institution indicates a well trained PA. With these objectives in mind the pathologist assistant can become to anatomic pathology what the medical technologist has already become to the clinical laboratories.

Summary

A new paramedical career, the pathologist assistant (PA), has been established

to aid the anatomic pathologist especially in completing his autopsy obligations.

The first 3 graduates of the intensive 12 month program at Duke University Medical Center have been interviewed to assess the initial use and possible future orientation of PAs. Each worked in a slightly different medical environment, emphasizing different features of his previous training program. When associated with active residency programs in pathology, the PA did primarily photography and teaching of gross autopsy technics. In situations with few residents, he performed most of the autopsies under close supervision of a pathologist.

The PAs were found to be adaptable technologists who offered medicine in general, and anatomic pathology in particular, desperately needed assistance in the autopsy service. Their full potential and proper use in pathology can only be established by continuing evaluation of their on-the-job performance. Through this approach, the proper perspective of the PA and his training program will become apparent.

Acknowledgments. This study would not have been possible without the cooperation of Mr. John R. McNamee and Mr. Coy Wagoner.

Address requests for reprints to J. C. Parker, Jr., MD, University of Kentucky Medical Center, Lexington, Ky 40506.

References

1. *Duke University Pathology Assistant Training Manual*. Durham, NC, Vol 1, No. 1, 1969
2. Musser AW, Rowlands DT Jr, Sommer J, et al: *Curriculum Guide and Training Manual for the Pathologist Assistant*, Department of Pathology, Duke University Medical Center, Durham, NC, p. 225
3. Flexner A: Medical education in the United States and Canada. A report to the Carnegie Foundation for the advancement of teaching. Bull No. 4, Boston, Merrymount Press, 1910