

ORIGINAL ARTICLE

A History of Medical Technology Education at the University of Nebraska Medical Center

PHYLLIS MUELLENBERG, M.A., M.T. (ASCP)
Assistant Professor, University of Nebraska College
of Medicine, School of Allied Health Professions

JAMES R. NEWLAND, M.D.
Associate Professor, University of Nebraska
College of Medicine

VICKI FREEMAN, M.A., M.T. (ASCP)
Instructor, University of Nebraska College of
Medicine, School of Allied Health Professions

CLINICAL LABORATORY BEGINNINGS

A statement made in the 1920's about the setting up of a medical laboratory noted that all that was necessary was a table put into the corner of a room, and this would be sufficient space upon which to perform the laboratory tests that were in vogue at the time. At first, students, interns, residents and nurses performed many of these laboratory procedures. Quality control and standardization were to come much later. In those first days of laboratory medicine, the laboratories were gradually shifted to the pathology areas, because by their specialty nature, pathologists were the most laboratory-oriented physicians. Generally, their office and work areas were in hospital basements. One of the first recognized clinical pathologists in this country was Dr. James Todd of Denver, Colorado.

The people that performed the tests in these early laboratories imperceptibly evolved into the medical technologists of today. At first, these individuals were given informal on-the-job training. Instruction became more and more formalized, until a baccalaureate degree with formal certification became the rule and is now required. Parallel with this development was the increasing importance of the medical laboratory in the diagnosis, treatment and clinical follow-up of the patient.

Inception of the Medical Center

A brief overview of the genesis of what became the University of Nebraska Medical Center follows: The Omaha Medical College opened its doors in 1882. A Dr. A. S. von Mansfelde, a graduate of the Rush Medical College was named as Professor of Pathology. During this period, the medical curriculum was two years in length. In 1891, the curriculum became a three year one, and finally a four year course in 1898. In 1902, the Omaha Medical College became a part of the University of Nebraska, being renamed the University of

Nebraska College of Medicine with part of the instruction being given in Lincoln, Nebraska. Finally, a new building was constructed for the College of Medicine on the far western edge of the city of Omaha in 1912 where the College is located to this day.

First Medical Technologist

The first formally trained medical technologist in our state of Nebraska is Ms. Helen Wyandt (later Mrs. Reihart), the founding medical technologist of the laboratory and Medical Technology program at the University of Nebraska Hospital. In 1928, Ms. Wyandt received Certificate #91 from the Board of Registry of the American Society of Clinical Pathologists, while presently there have been over 227,000 such certificates awarded.

Helen Wyandt was born in Algona, Indiana in 1895. Her father was the superintendent of schools for the town. Ms. Wyandt graduated from Simmons College in Massachusetts (located near Harvard University) in 1918, where she had taken a "long home economics course." She was recruited by one of the pathologists at Harvard, Dr. Roseneau, to do medical laboratory work to replace Navy corpsmen who had gone overseas during the World War. Ms. Wyandt joined the U.S. Navy at a Yeoman, First Class and was stationed at the U.S. Naval Hospital in Chelsea, Massachusetts from 1918-1921. (Figure 1) Here, she worked under Dr. J. Jay Keegan, a neurosurgeon, who was chief of the Chelsea Hospital. Next, the young Helen Wyandt worked for the U.S. Public Health Service at the Marine Hospital in Chelsea.

In 1921, Ms. Wyandt was recruited by Altus Johnson, M.D. through Dr. Roseneau to work at Jennie Edmundsen Memorial Hospital in Council Bluffs, Iowa. Dr. Johnson was also on the faculty of the University of Nebraska College of Medicine. In 1923, through the

he

M.T. (ASCP)
Nebraska College of
Health Professions

part of the
Nebraska.
ted for the
stern edge
where the

technolo-
Ms. Helen
founding
atory and
University
s. Wyandt
Board of
of Clinical
have been
rded.

a, Indiana
endent of
graduated
usetts (lo-
18, where
economics
ne of the
eau, to do
ace Navy
during the
U.S. Navy
ationed at
a, Massa-
Here, she
rosurgeon,
ital. Next,
or the U.S.
e Hospital

d by Altus
u to work
ospital in
as also on
Nebraska
rough the



FIGURE 1
Yeoman First Class Helen Wyandt, c. 1918.

efforts of Dr. J. Jay Keegan, who was now a practicing neurosurgeon in Omaha, Ms. Wyandt was recruited to help set up a clinical laboratory at the University of Nebraska Hospital, becoming the first medical technologist in the state of Nebraska and the first medical technologist on the faculty of the University of Nebraska College of Medicine. (Dr. Keegan was to become Dean of the College of Medicine in 1925.) The clinical laboratory was begun in the northeast corner of the basement of the North Laboratory Building, now known as Poynter Hall (Figure 2). Ms. Wyandt and Harold Eggers, M.D. worked together on this pioneering project. Dr. Eggers had been named Professor and Chairman of Pathology in 1917, and he remained in that capacity until his retirement in 1948. Aura J. Miller, M.D., who in 1926 became the first full-time clinical pathologist at the University of Nebraska Hospital, was also instrumental in developing the laboratory. Later, the clinical laboratory was moved to Unit I of the hospital on the ground floor (third level) where the Endocrinology and Pediatric Specialty Clinics are presently located.

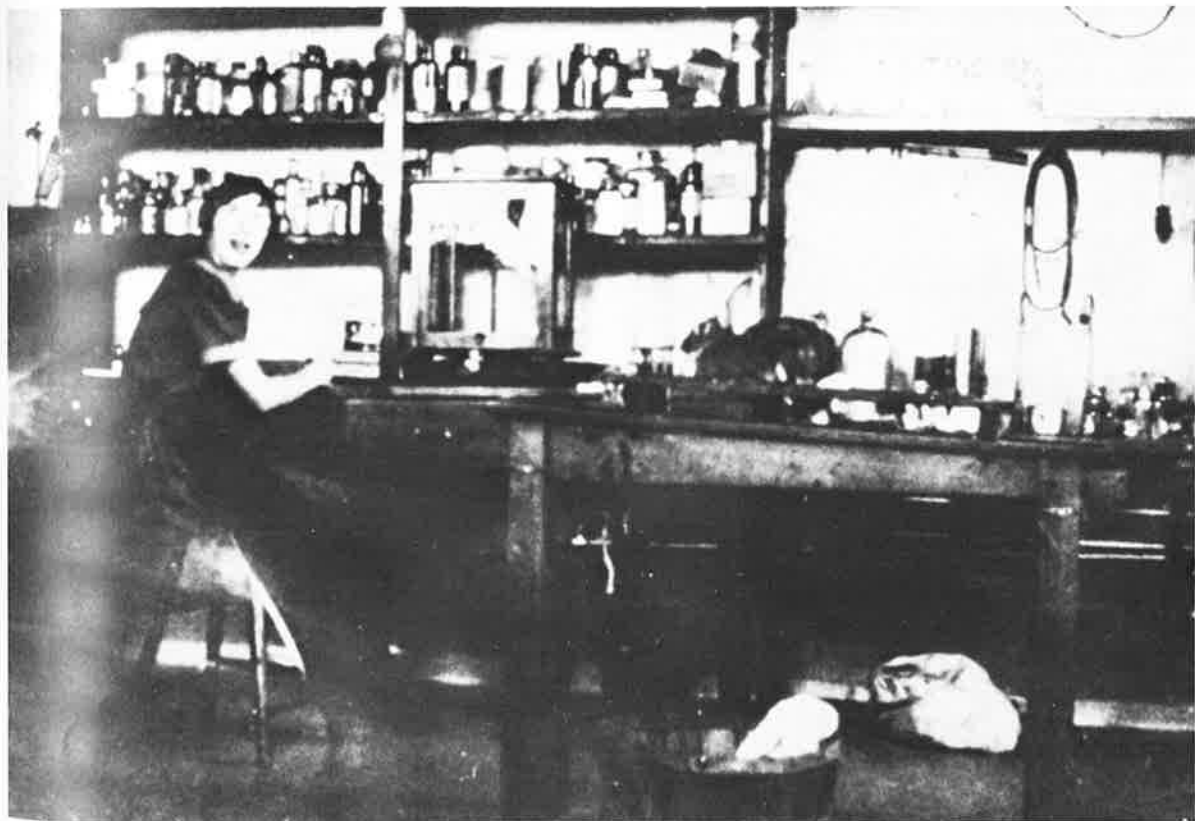


FIGURE 2
The first medical laboratory in the basement of Poynter Hall. The first medical technology trainee, Margaret Nice is at the bench.

Inception of the Program

The young founder began a medical technology training program with one or two students at a time. There were three most pivotal trainees in the years 1932 and 1933: Ms. Francis Cogan (Figure 3) completed her medical technology studies under Ms. Wyandt in 1932, and she worked briefly at University Hospital and then at the Nebraska Methodist Hospital laboratory. Ms. Cogan supervised medical technology trainees from the University of Nebraska at Nebraska Methodist Hospital. She retired from active medical technology work in 1973, but since then has been in charge of purchasing for the same laboratory. Bernice Elliott (Figure 4) and Ruth Pohle (Figure 5) completed their training with Ms. Wyandt (Figure 6) in 1933. Ms. Elliott was employed by Bishop Clarkson Memorial Hospital where she founded the medical technology teaching program there in 1942. She worked in various capacities at this hospital for 40 years. Ms. Pohle remained at the University of Nebraska Hospital and later became Chief Medical Technologist of the clinical laboratories. These three women still reside in the Omaha area today. Although the three laboratories seemingly went their own ways after 1933, they were to become closely related again in a pleasing and unique way 36 years later.



FIGURE 3
Francis Cogan. She developed and supervised the laboratory at Nebraska Methodist Hospital.

The Combined Schools

The Drs. Larsen were instrumental in a most significant step in 1968: a consortium of medical technology teaching programs was formed among the University of Nebraska



FIGURE 4
Bernice Elliott. Founder of the Medical Technology Program at Bishop Clarkson Memorial Hospital.



FIGURE 5
Ruth Pohle. Miss Pohle continued the pioneering work of Helen Wyandt Reihart, and a B.S. in Medical Technology was first offered in 1947.

in a most
ortium of
rams was
Nebraska

Hospital, Nebraska Methodist Hospital and Bishop Clarkson Memorial Hospital, being named the Combined Programs. Resources and committee structures were combined utilizing the strengths of all three programs. The program and medical directors at Nebraska Methodist Hospital at this time were Phyllis Muellenberg, M.A., M.T. (ASCP) and Jerry Tamisiea, M.D. respectively, while those officials at Bishop Clarkson Memorial Hospital were Roma Brown, M.T. (ASCP) and Donald Skoog, M.D. respectively. Most students in the Combined Programs elect to receive their Bachelor of Science in Medical Technology degree from the University of Nebraska. This is the most successful medical technology teaching consortium in the country and is a model program.

Bachelor of Science in Medical Technology

Gradually, the University of Nebraska program became more formal, and the numbers of students in a class increased. Through the efforts of Ms. Wyandt, the program became a nationally accredited program in 1937-38. Ms. Pohle took over Ms. Wyandt's duties as program director of the Medical Technology program in 1940 when Helen Wyandt married Dr. Oliver Reihart, a veterinarian. (The newly married Mrs. Reihart continued her career as a health professional in the laboratory field,



FIGURE 6
Helen Wyandt Reihart. Her efforts have had a lasting effect on Medical Technology in Nebraska.

later returning to the University as a research technologist.) In the 1940's, the clinical laboratory was moved to the fourth floor of the south unit of the Hospital. In 1947, she and Perry Tollman, M.D., who had come to the University in 1931 and now had become chairman of the Department of Pathology, developed the medical technology instruction into a baccalaureate level program with a Bachelor of Science in Medical Technology. Ms. Pohle continued as program director until 1964 and retired as Chief Medical Technologist in 1976. Dr. Tollman remained medical director of the program until he became Dean of the University of Nebraska College of Medicine in 1954. His duties as medical director were later taken over by Morten Kulesh, M.D., while John R. Schenken, M.D. was named as chairman of the department. In 1962 the clinical laboratories were moved to the hospital clinic area. In 1964, Arden Engstrom Larsen, PhD, became program director of the Medical Technology Program and in 1965, Arthur Larsen, M.D. became medical director. C.A. McWhorter, M.D. became chairman of the department in 1965. Dr McWhorter would later go on into national prominence as President of the College of American Pathologists and President of the Nebraska Medical Association.

In 1969 and 1970, respectively, William G. Padgett, M.S. and Mary Jean Long, Ph.D. became program officials in the University of Nebraska Hospital program. Mr. Padgett would later become the program director. Through the efforts of Dr. Arden Engstrom Larsen, a graduate program in medical technology was instituted in 1969, and a Master's degree was offered. This activity has continued and has been quite successful. The clinical laboratories expanded into the an area of the new clinic building called the Ambulatorium, in the 1970's. Up to this time, the Program in Medical Technology had been administratively under the College of Medicine through the department of Pathology. In 1972, the School of Allied Health Professions was created by the Board of Regents of the University of Nebraska to be within the College of Medicine. This was in recognition of the importance that the programs in Allied Health at the University of Nebraska Medical Center had achieved. Medical Technology had been the first Allied Health program at the University of Nebraska. William Ruegamer, Ph.D. became the first Associate Dean of the School. Dr. Ruegamer was an

Technology
ospital.

Engineering work
in Medical

ardent supporter of the Medical Technology program. James Newland, M.D. became medical director of the Medical Technology Program in 1975. Mr. Padgett became program director during this period. In 1976, Barbara Fricke, M.A. joined the faculty as a program official and remained until 1979 when she became program director of the medical technology program at the University of New Mexico. Dr. Long retired in 1979, and John R. Snyder, M.T. (ASCP) M.S. became a program official.

In 1981, David T. Putilo, M.D., a distinguished research pathologist, became chairman of the department. At the same time, Mr. Snyder and Mr. Padgett became co-program directors of the program. Mr. Snyder received his Ph.D. during this period. Dr. Snyder left in 1983 to become program director of the medical technology program at Ohio State University, while Mr. Padgett retired in the same year. The duties of Program Director were taken over on an interim basis by Phyllis Muellenberg M.T. (ASCP), M.A., with her position becoming permanent soon thereafter. At the same time, Ms. Muellenberg has remained as program director at Nebraska Methodist Hospital. In 1984, Vicki Werner, M.T. (ASCP) became Education Coordinator of the University Hospital program, serving very ably until she left in 1986. Vicki Freeman, M.A., M.T. (ASCP)

took over the duties of Education Coordinator of the program at University Hospital in 1986.

Present and Future

Presently, the program is developing computer-aided instruction and is changing its emphasis to meet the challenges of the future. The advent of Diagnostically Related Groups (DRGs) have caused a series of adjustments in medical technology education across the county. It will be necessary to be as innovative as were the founders of medical technology education and those who followed. As of June, 1988, the Combined Programs will be the only medical technology teaching programs in Nebraska. There are challenges which must be viewed as opportunities. As the second half of the first century of the Medical Technology education program at the University of Nebraska Medical Center is entered, the future for medical technology looks hopeful and exciting.

REFERENCES

1. Coleman RB. The **First Hundred Years** of the **University of Nebraska College of Medicine**. University of Nebraska Medical Center, 1980.
2. Newland, JR, McWhorter CA and Tollman JP. University of Nebraska Medical Center Department of Pathology and Microbiology. *Neb Med J* 72:42-51, 1987.