

1844-1994



Our

Medical

Heritage

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Lancaster City & County Medical Society

Section 1

The History of the Lancaster City & County Medical Society



LANCASTER, PENNSYLVANIA, 1844

Chapter 14

Epidemics In Lancaster County

Cholera

The cholera epidemic of 1854 was part of the social and medical history of Lancaster County. Here was fear and panic and superstition. It was tragic human drama before the dawn of modern bacteriology and man's liberation from the silent destroyer.

On August 2, 1854, an Irish immigrant arrived in Lancaster from Philadelphia by train. This traveler, Patrick Tute, was desperately ill upon arrival in Lancaster. His condition rapidly deteriorated and he died the following day. On the morning of August 8th, a patient in the Lancaster County Hospital was found in a state of collapse and died within a few hours; and from this time the disease continued until the end of September with fourteen deaths among the inmates. Eight patients with cholera were brought from Columbia, Pa., of which six died and two recovered. (The cholera epidemic in Columbia is discussed later in the article.) Two weeks after the onset of this malady at the hospital, an inmate at the Almshouse died of cholera, and before the disease had ended, a total of twelve patients succumbed to cholera in the Almshouse.

Dr. John L. Atlee was attending physician at the Lancaster County Hospital and the Almshouse. At that time public health measures consisted of cleaning houses and white-washing from attics to cellars, removing dead matter, treating outhouses with lime and cleaning the sewers.



In Columbia, two immigrants from Germany, at least one of whom was sick with cholera, were left at the train depot on September 6, 1854 and died within 48 hours. Thirty people in Columbia were infected with the disease and died within another 24 hours. A panic appeared among the citizens and over one-half of the population (over 5000 people) fled from the town.

When the epidemic had terminated in Columbia, 127 people had died of cholera including one physician, Dr. Richard Cochran, a charter member of the Lancaster City & County Medical Society. The epidemic was studied by Dr. A. Clarkson Smith, a physician in Columbia and Dr. T. Heber Jackson of the Medical School of the University of Pennsylvania. Incidentally, Dr. Smith had a successful result treating a cholera patient with venesection (blood-letting) and used this method of treatment on three additional patients. All survived.

Dr. Atlee's treatment of cholera consisted in the administration of quinine or cinchona bark, cold drinks or ice, and opium preparations to control dysentery.

Many opinions about the cause of the disease prevailed. Some said the disease was connected with the air and locality, viz: when the wind blew east from the Susquehanna River, this condition brought cholera to Columbia. The Rev. Ebenezer Erskine, minister of the First Presbyterian Church in Columbia preached a sermon on "God in the Pestilence" or "A Visitation from God". The predominant opinion was contagion and Dr. Atlee's observations from his involvement with this disease at the Lancaster County Hospital and Almshouse point to this conclusion.

Dr. Atlee wrote that "several portions of rice water discharges from the stomach and bowel were carefully examined by a powerful microscope." His opinion was that "a specific poison emanating from the bodies of the sick was eliminated, which produced a similar disease in those who were exposed to it. Call it contagion, infection, or by any other name we please, it has the same characteristic properties as the poison of smallpox, of measles, or scarletine - that of producing in those susceptible to its influence the same specific disease." Dr. Atlee's observations and theories of the transmission of this disease speak well for the progressive spirit of scientific inquiry exhibited by Lancaster County colleagues of over a century ago. Previous theories of the transmission of cholera disparaged the theory that the body effluence and contaminated material from infected patients could transmit the disease.

Dr. Atlee's observation revolutionized the thinking as to the mode of transmission of this disease. In his report he said that "chemical analyses and microscopic investigation are continually exposing the errors of earlier observers, and unfolding new views on the phenomena of healthy and diseased actions. Perhaps, with these additional aids, some Jenner may arise whose genius will discover the poisonous elements of cholera and teach us how to neutralize the virus, and to lessen its mortality." These remarks antedate by two years Snow's description of an outbreak of cholera in England which incriminated contaminated water as the source of disease. It was not until 1883 that Dr. Robert Koch of Germany became Dr. Atlee's "Jenner" when he identified the bacteria, *Vibrio cholerae*, in the feces of cholera patients.

Tuberculosis

Tuberculosis was known as the White Plague and was a frequent cause of death in the 19th and early 20th centuries. Dr. Robert Koch, the German pioneer in bacteriology, identified the tubercle bacillus as the cause of tuberculosis in 1882. Initially, no chemical agents or antibiotics were available to kill the bacillus and the treatment of tuberculosis was bedrest, fresh air, heliotherapy and a high calcium diet with emphasis on milk and eggs. Later, resting (collapsing) the lung could be performed by several methods, such

as: pneumothorax (injection of air into the pleural cavity), pneumoperitoneum (injection of air into the peritoneum), phrenic nerve paralysis (crushing the phrenic nerve which innervates the diaphragm), or thoracoplasty (collapsing the lung by surgery).

In 1920, there were 150 deaths in Lancaster County from tuberculosis. Rossmere Sanitarium became a local center of treatment for this dreaded disease for 31 years from 1925 to 1957, and accommodated 50-60 patients at one time with an average length of stay of 2-3 years. Miss Ida Mary Herr was the Superintendent of Rossmere during its entire existence. In 1944, streptomycin's discovery revolutionized the treatment of tuberculosis and the special institutions for its treatment began closing. In 1953, the deaths from tuberculosis in Lancaster County were reduced to 42.

As refugees from Eastern Asia immigrated to our country following the Vietnam War and some, mostly Vietnamese, settled in our county, an alert was sounded in the medical community about the potential high incidence of tuberculosis among these people. Now, with the dawn of the 21st century approaching, there appears to be a resurgence of tuberculosis. Much of this is attributed to the immune deficiencies in the human immunodeficiency virus (HIV) infected population and the increased resistance of the tubercle bacillus to the antituberculosis antibiotics and medications.

Typhoid Fever

The first patient admitted to the Lancaster General Hospital in 1893 was a victim of typhoid fever. Typhoid fever was so common in the 19th and early 20th centuries that it was considered endemic (always present) in our community. The hospitals had a steady flow of patients afflicted with this devastating disease.

In 1898 Spanish-American war soldiers suffering with typhoid fever were transported from Middletown to the Lancaster General Hospital and St. Joseph Hospital for treatment. At that time, one of the treatments consisted of cold baths, and the horse train was stopped at intervals enroute to pour icy water over the fever-ridden patients via tarpaulins that were placed over them. In the hospital, cold sponges were continued for high fevers, four ounces of milk was dispensed every two hours and patients received medication consisting of dilute hydrochloric acid or quinine.

During the first 15 years of operation (1893-1908) there had been 338 patients admitted to the Lancaster General Hospital with typhoid fever; 280 were cured and 48 died for a mortality rate of 11.2%. In 1906 there were 5 deaths from typhoid fever. The causes of death were described as: 1 from hyperpyrexia and exhaustion, 1 from perforation of the bowel, 1 from meningitis, and 2 from intestinal hemorrhage.

Dr. Theodore B. Appel, Medical Director of LGH, noted that the hospital had treated an average of 40 patients with typhoid fever annually; in 1907

there were only 17 patients with typhoid fever admitted, a decrease that he attributed to the benefits of filtered water in the City of Lancaster. Filtered water was the project of another famous physician associated with the Lancaster City & County Medical Society, Dr. Charles P. Stahr. Today, uncontaminated water and food supplies and vaccines have prevented typhoid fever and antibiotics and medications have been remedies for anyone, who may acquire it.



AGE OF CHEMOTHERAPY AND ANTIMICROBIALS 1910

Influenza

On October 7, 1918 the Lancaster City Board of Health reported 2516 cases of influenza in one day. All places of public gathering had been closed on October 4th. The Lancaster General and St. Joseph Hospitals were filled, and patients were in offices and halls and sun parlors and all available spaces in these institutions. Moose Hall on East King Street was opened as an emergency hospital. Dr. John Atlee, Sr. was named Director. When Dr. Atlee became ill, he was replaced by Dr. Frank Hartman. Gratitude was expressed to Dr. Jesse Plant, house physician, Dr. John Atlee and Dr. Frank Hartman for their excellent service during this time. According to Dr. S. Gilmore Pontius, who was an intern at that time and later became the chairman of the Department of Surgery at LGH, one-third of the people admitted to the Lancaster General Hospital died during the epidemic.

Lancaster had 301 deaths in the month of October. One hundred-three deaths were reported at LGH, 88 in the Receiving Ward. Two nurses and one staff physician at LGH died during the epidemic. At St. Joseph Hospital, admissions to the hospital numbered 301, of which 255 were patients with influenza and 55 died. 21 of 32 nurses in training contracted the disease, but all recovered.

During the height of the epidemic the acting head of the State Health Dept. forbade trains or automobiles traveling through the city to stop in Lancaster.

This overwhelming scourge brought out the best in the local residents and many instances of goodwill were shown by the people of Lancaster. The Red Cross, Women's Defense and Board of Health donated bed linens, pillows, blankets, cots, towels and night garments. Individuals contributed cash and some gave of their time to run errands or act as chauffeurs. In more recent years, influenza vaccines have been used for prevention of these epidemics. Antibiotics have been successful in treating many of the complications, mainly pneumonia, of this disease.

Smallpox

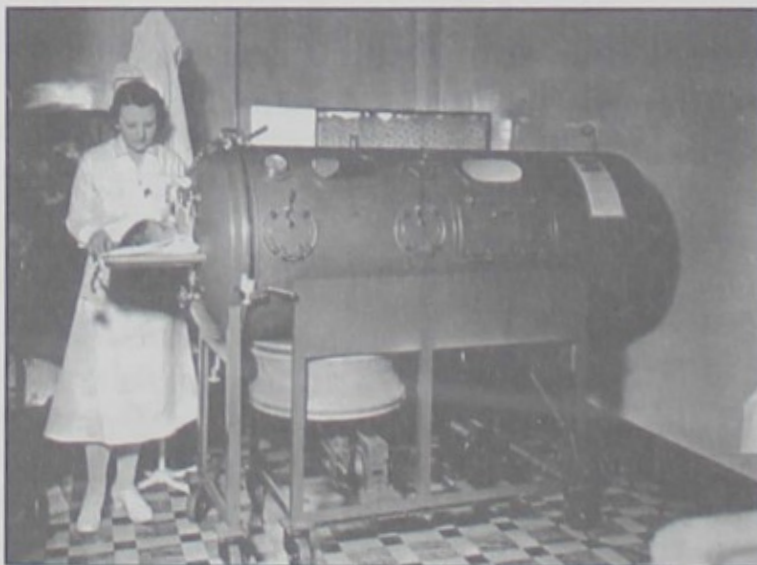
Dr. H. M. J. Klein stated in an address delivered on the occasion of the 100th anniversary (1944) of the LC&CMS, "In 1845 during a smallpox scare in Philadelphia and Baltimore, the LC&CMS firmly expressed its conviction on the efficacy of smallpox vaccination, a rather daring thing to do in a conservative community 100 years ago."

In 1943, our county was again threatened with an outbreak of smallpox. With the cooperation of the profession and the public, mass vaccinations checked the spread of the disease and prevented a threatened epidemic.

*On December 9, 1979,
the World Health Organization
officially proclaimed that
smallpox was eradicated from the globe.*

Poliomyelitis

From 1944 to 1957 the Lancaster General Hospital set aside a special area for victims of anterior poliomyelitis (infantile paralysis) during the summer and fall months of each year. The Polio Unit with Dr. Edgar Meiser in charge



An iron lung

was designated by the Pa. Dept. of Health as the unit for Lancaster and Lebanon Counties. Dr. Louise Slack was the pediatrician in the Unit and Dr. Henry S. Wentz assisted both. The March of Dimes, which was established by President Franklin Delano Roosevelt who had been a victim of the disease, was responsible for financial aid to the victims and their families. Iron lungs were used for patients who needed

assistance with respiration and at one time five of these were in use.

Edna Schreiber, a nurse, was sent to Minnesota to learn the Sister Kenny treatment and returned to indoctrinate the nurses and physicians in this mode of treatment. The Kenny treatment consisted of hot packs placed on the affected limbs and backs of the polio patients. The hot packs were placed in washing machines with very hot water. The material would be wrung out and placed on the patient while really hot. The purpose was to relieve the spasm and pain of the victims. The Kenny treatment also consisted of muscle reeducation which was supervised and performed by Miss Schreiber.

1954 was the peak year with 118 patients admitted with possible polio and 80 patients finally diagnosed as definite poliomyelitis. 28 were paralytic, 38 non-paralytic and 14 had bulbar (brain) involvement. 62 returned home, 4 died and 14 were transferred. That year there were 55,000 cases of paralytic polio in the U.S.

In 1955 the killed vaccine discovered by Dr. Jonas Salk was administered to children. From that time, patients with poliomyelitis declined in number. No polio patients were admitted in 1958 until late in the year when 2 were admitted.

In 1962-63 the Lancaster City & County Medical Society under the supervision of Dr. Meiser, with the help of the media, churches and organizations throughout the county, spearheaded the local program of mass immunization of thousands of children and adults at the local schools by the new, effective, live, orally administered polio (Sabin) vaccine.

Paratyphoid Fever

Before poliomyelitis had disappeared from Lancaster County, an epidemic of Salmonella made its appearance in December 1955. 268 patients were reported to have paratyphoid fever and 36 patients were admitted to isolation areas of hospitals. The infection was alleged to have spread from the use of milk from a local dairy. Kissing by Santa Claus was "off limits" during the Christmas season because of this malady.

A World Without Smallpox And Polio

There is good reason to believe that today we are on the threshold of eradicating poliomyelitis from the Americas. The last identified patient with polio in the Western Hemisphere was in Peru in September 1991. The United States spends \$300,000,000 a year for vaccinations against a virus that is no longer circulating within our boundaries. An additional \$100,000,000 per year for the global eradication of poliomyelitis could allow us to remove that expenditure from our budget within a decade.

The following list is an abridged summary of the events leading to the complete eradication of smallpox and the almost total disappearance of

polio from the world: (Journal of the American Medical Association, Oct. 20, 1993)

1. Dr. Edward Jenner's discovery of vaccination as a prevention against smallpox in 1798.
2. President Thomas Jefferson provided smallpox vaccine to Lewis and Clark in 1803 for the protection of vulnerable Indian tribes.
3. Johns Hopkins University started the first Department of Epidemiology in 1918. In 1951 an Epidemic Intelligence Service was begun by Dr. Alexander Langmuir and surveillance programs were developed for smallpox, polio and other diseases.
4. The work of Enders, Weller and Robbins on tissue culture techniques made safe vaccine production possible and was recognized by a Nobel prize in 1954.
5. Wyeth Laboratories provided a needle patent to the World Health Organization (WHO) of a bifurcated needle that provided easy reproducible vaccinations. WHO, working with the United Nations Children Fund (UNICEF) made immunizations available to all children of the world.
6. Rotary International raised a quarter of a billion dollars to eliminate polio. As a result, man now stands on the brink of the elimination of polio from the world.

Thomas Jefferson wrote a letter to Dr. Edward Jenner in which he said, "Future generations will know by history only that this loathsome smallpox has existed." 180 years later, Jefferson's prophecy was realized and smallpox was officially declared conquered. Providing a similar fate to poliomyelitis could be a fitting gift from the 20th to the 21st century.