George Washington: Cure or Cause

by Donna Mann

George Washington is very well known as a commanding, larger-than-life figure that defeated the British Army and served as the United States' first president. However, throughout his life he was beset by many illnesses as was common for most people during that time period. Diseases such as malaria, tuberculosis, and smallpox were endemic during this time and likely had a cumulative impact on Washington's immune system.

The controversy surrounding the death of George Washington was immediate and continues today. On December 12, 1799, Washington went out riding in the snow and sleet to inspect his property. He returned home with his clothing wet from the weather but kept wearing the wet clothes throughout the evening. The next morning, December 13, he woke complaining of a severe sore throat. He again went out into the cold wet weather. By nightfall, his condition had worsened with difficulty speaking. At this time, Washington refused any medication.

By the morning of December 14th, Washington was unable to speak and was struggling to breath. He was unable at this time to drink any medications that were attempted. Washington ordered Mr. Albin Rawlins, the overseer of Mount Vernon, to bleed him of approximately 14 ounces since he was a firm believer in the practice of bloodletting.

Dr. James Craik arrived at Mount Vernon around 9 AM and performed two further bleedings totaling 40 ounces and encouraged Washington to gargle with vinegar and sage tea. Later that afternoon, after the arrival of 2 other doctors, a fourth bleeding was performed but according to their reports the blood "came very slow".

All efforts by the doctors to save Washington's life were unsuccessful and he passed away just after 10 PM on December 14, 1799.

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EHMHF Unveils Display of Medical Antiques

by Donna Mann

In a joint project with Rock Ford Foundation, the late 18th century home of Dr. Edward Hand, the Edward Hand Medical Heritage Foundation now has a long-term display of medical artifacts depicting medical practices during the 18th and early 19th centuries. Housed in a 4' x 4' glass enclosed case on the second floor of Rock Ford's barn museum, the display gives visitors an interesting first-hand look at medicine and medical instruments used in the 18th and early 19th centuries.

The artifacts selected for the display come from the over 10,000 artifacts stored at the Edward Hand Medical Heritage Foundation museum warehouse. Artifacts were researched and dated to determine which artifacts would give visitors the best overview of medicine during the time that Edward Hand

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From the President
By Nikitas Zervanos, MD


Although there have been occasional newsletters published in the past to highlight newsworthy items relating to the activities of the Edward Hand Medical Heritage Foundation, they appeared only sporadically during our 30 year history. We hope that this edition of our "new" annual newsletter will continue indefinitely. Perhaps in the future the activities of the foundation may warrant more issues per year, but our board is committed to the publication of an annual winter edition to herald in the New Year and highlight the activities of our previous year.

We are pleased to announce that Ms. Donna Mann, a 2011 honors graduate of Millersville University with a degree in archeology and anthropology along with 12 years’ experience in the printing and publication industry, has been selected to be our first editor. In this edition with a more than ten year hiatus since the publication of the foundation's last newsletter we are going to bring our friends and readers up to date of where we are in terms of our collections and the progress our organization has made since its founding in 1982.

In 1982 a committee of physicians, headed up by Drs. Paul Ripple and Samuel Hauck from the Lancaster City and County Medical Society, along with interested Lancastrians from the allied health professions and leadership community with an interest in preserving Lancaster County’s rich medical history, got together to establish this organization. The mission of the foundation was to preserve our medical heritage through the collection of artifacts and memorabilia and to display them as exhibits throughout the community. Board members would also be available to make presentations to interested groups. The name, Edward Hand was chosen because of the indelible imprint he has made in both Lancaster County’s early medical and military history. Born in Ireland in 1744, he acquired his medical education in Dublin, served as Surgeon’s mate with the Royal Irish, arrived in America in 1767, assigned to Fort Pitt as a British military officer, and soon joined the American Cause, which led to resigning his commission in 1774 and taking up residence in Lancaster. He became one of America’s, let alone Lancaster’s, most esteemed citizens. He served heroically during the Revolutionary War, chosen as Washington’s Adjutant

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New Display ...

practiced. This curation project was conducted by Donna Mann, an intern at Millersville University who has since graduated from Millersville with a degree in Archaeology.

The display depicts four areas of medicine: General medicine, Bloodletting, Optometry, and surgery.

Artifacts in the General Medicine section include a wooden physician’s chest used to hold medicines and instruments, a wooden stethoscope, a pharmacy scale for measuring medicines, syringes, medicine bottles along with a cork press for sealing the bottles, and microscopes.

The Bloodletting section of the display includes a variety of instruments used for this method of treatment. These artifacts include leeches, spring loaded lancets and scarifiers as well as cupping kits used to heat the skin before it is cut to bring the “bad” blood to the surface.

The Optometry section includes several styles of eyeglasses used during the 18th century including wig spectacles that have temples that can easily be attached to a gentleman’s wig. In this section, visitors will also find an early 19th century ophthalmoscope and sample lens kit used to make spectacles. Eye surgery, though performed by only the most skilled surgeons, is represented here with the eye surgery kits dating to the mid-18th century.

The surgery section includes several examples of surgical instruments used by 18th century surgeons. Many are stored in decorative wooden cases with sizes from small travel surgery kits to large kits including a variety of instruments for nearly any surgical need as well as a trepanning kit; a procedure used for relieving pressure on the brain by drilling a hole into the skull.

In addition to this long-term display, future short-term displays are planned that will be based on specific areas of medical history, such as the Civil War era, that can be shown using our vast collection of artifacts.
Our Executive Board

Dr. Nikitas J. Zervanos, President, received his BS from Albright College in 1958, his MD from the University of PA in 1962, and completed an internship at Lancaster General after which he served as a general medical officer in the US Army in Greece, internal medicine training at the Philadelphia VA Hospital and the Hospital of the University of PA, and a fellowship in the Family Health Care Program at Harvard Medical School. He became the founding director of the family practice residency program at Lancaster General in July, 1969, and retired in 2002. He is a Clinical Professor of Family Medicine at Temple University, and for the past 35 years continues to serve as Director of the Temple University/Lancaster General Family Practice Review, a continuing medical education program for family physicians. During his professional career he has served in leadership roles in many local, state, and national organizations as well as local civic organizations at various levels.

Dr. Ernest Wood, VP received his BS from Notre Dame University in 1959, his MD from Georgetown University in 1963, and completed his graduate medical education in Obstetrics and Gynecology as a military officer at the US Naval Hospital in San Diego. He served on the teaching staff at the US Naval Hospital in Oakland from 1970-1972. He entered private practice in Lancaster in 1972, and continued until his retirement in 2000 during which time he served as Chairman of the OB/Gyn Department at Lancaster General and Chair of the Grievance Committee of the Medical Society.

Dr. David Wiley, Second VP received his BS from the University of North Carolina in Chapel Hill in 1952; then served in the US Army before returning to acquire his medical education at the Philadelphia College of Osteopathic Medicine in 1958, completing his graduate medical education in Obstetrics and Gynecology at the Hospital of the Philadelphia College of Osteopathic Medicine in 1962 before entering into private practice here in Lancaster. He retired in 1994 and over the years served in many capacities in a variety of professional and civic organizations including president the Lancaster County Medical Society, the Medical Bureau, the Edward Hand Medical Heritage Foundation and the Lancaster Chapter of the American Cancer Society.

Mrs. Joan Boben, RN, Secretary, received her nursing degree from The Lankenau Hospital in 1964, her BS from St Joseph’s College in 1985, and her Masters from Penn State University in 1997. She worked at The Lancaster General Hospital in many capacities including Director of Women’s and Children’s Health and in a similar role for the Hospital of Association of PA in Harrisburg. Over the years, she has served in a variety of leadership roles including president of the Edward Hand Medical Heritage Foundation, Childrens and Youth, VNA, March of Dimes, American Cancer Society, Homestead Village, School District of Lancaster and Lancaster General Hospital.

Dr. John Bowman, Treasurer, received his BS from Moravian College in 1954 and his MD from Jefferson Medical College in 1958. After completing his internship at LGH in 1959, he served with the US Public Health Service in Arizona for the next two years. He then went to the Mayo Clinic and completed his specialized training in ophthalmology before entering private practice here in Lancaster in 1965. He retired in 1997, but has remained very active in his church and in many of Lancaster’s service organizations including a Docent of the PA State Railroad Museum, Lancaster Meals on Wheels, and as a past regent of the PA Society of the Sons of the Revolution.

Dr. William D. McCann, V. Treasurer, received his BS from Penn State University, his MD from Jefferson Medical College in 1961, and after completing his internship at Harrisburg Polyclinic Hospital, he served as a general medical officer in the USAF from 1962-1965. He then completed a general practice residency at Lancaster General, did practice for two years in Leola, and then went to the Mayo Clinic to fulfill his graduate medical education requirements as a cardiologist in 1971. He then returned to Lancaster to form Cardiovascular Associates of Lancaster with Dr. Richard Mann, now known as the Heart Group of Lancaster. While in practice, he served as chair of medicine at Lancaster General, became actively engaged in student and resident teaching, earned an appointment as Clinical Assistant Professor of Medicine at Temple University, and was recognized for these contributions by earning a number of awards. He retired in 2000.
From the President...

General (Chief of Staff), and rose to the rank of Major General before returning to Lancaster to reestablish his highly successful medical practice. He was married to the former Kathryn Ewing, from one of Lancaster’s most upstanding families. After the war he and his family established their home at Rock Ford. He remained active in local and national politics, having served in the Continental Congress, signer of Pennsylvania’s state constitution, and as chief burgess of Lancaster. He also played an instrumental role in establishing the 1799 Lancaster County Alms House and Hospital. A great granddaughter was married to the second of the five Dr. John Atlee’s.

A major goal of the EHMHF is to one day establish a medical museum to house and display the accumulated artifacts, books, and memorabilia, which now amounts to more than 10,000 such items. At first these items were housed in space contiguous to the medical society’s old office at 137 East Walnut Street. Space became a critical issue to store our growing collection, it was thankfully made possible by Lancaster General which generously provided space in their warehouse on Marshall Street, and more recently in a 1000 square foot section of the General’s warehouse in the Burle Building on New Holland Pike. Although we still do not have the financial ability to establish a museum, we have several exhibits displayed at Lancaster General Hospital and at Rock Ford. A pharmacy exhibit is located just outside the General’s Convenience Pharmacy and another elaborating some of the General Hospital’s historical milestones is located on the east side of the first floor, behind the old elevators on the Lime Street Corridor. This features informative pictures, narratives, and medical artifacts highlighting the period leading from the founding of the General Hospital to the present. A third exhibit that chronicles the history of the family medicine residency program is also featured on the third floor of the new Downtown Pavilion. A fourth exhibit is displayed in the medical staff lounge of Lancaster General, which features pictures and hand written letters from President James Buchanan (10 August 1861) to his personal physician, Dr. Henry Carpenter and from George Clymer (October 20, 1792), a co-signer of the Declaration of Independence, to Dr. Edward Hand. More recently, a special exhibit that highlights the late 18th century and early 19th century medical practice of Dr. Edward Hand’s era has been established at the Rock Ford Plantation. We are hopeful to be able to establish additional exhibits at the other county-wide hospitals, educational institutions, and other existing county museums.

We also have solicited members of the medical and allied professions to write the stories and historical accounts of their specialties or profession. Thus far these include Psychiatry, Gastroenterology, Ophthalmology, and the development of Contact Lenses. They are now displayed on our web site, www.edwardhandmedicalheritage.org.

The foundation welcomes supporting membership and would encourage interested parties to become involved in any of our standing committees, which include: Collections, Resource and Finance, Exhibits and Programs, and Publication. You can contact us by phone at 717-940-1770, or by emailing the president of the foundation (njzervan@comcast.net). We have several categories of supporting membership, which include:

- Student: $25
- Friend: $50
- Patron: $100
- Fellow: $250
- Business: $500
- Benefactor: $1000

We hope that this first edition of our “new” Newsletter will enlighten you about this wonderful community resource, and that you will be inclined to support us.
Washington ...

The cause of Washington’s death has been a subject of debate for over 200 years. Diagnosis has included acute laryngeal diphtheria, quinsy, acute streptococcal laryngitis, cynanche tracheitis, Ludwig’s angina and acute epiglottitis.

Central to this controversy is the amount of bleeding that Washington was subjected to over an approximately 12 hour period. Bloodletting, which originated in the 5th century B.C. during the time of Hippocrates, was believed to remove the impurities in the blood. It was believed not only that the human body would replace the removed blood within a few hours but that the human body contained 12 quarts of blood.

In 1799, the year of Washington’s death, bloodletting was the standard procedure in the treatment for most illnesses. This practice continued through the 18th century and started to wane only late in the 19th century although in some very rural areas of the United States, it was practiced by physicians until about the 1930s.

It is clear that the excessive bloodletting endured by Washington contributed to his death that December evening. However, the absence of effective treatment options along with the advanced nature of his illness, any therapy that his physicians may have instituted would have been unsuccessful in saving Washington’s life.

Medicine Through Time

Common medical treatments for most diseases significantly changed over time. This article shows how the treatment for pneumonia evolved from the late 19th century to the mid-20th century.

*From the book “The History of LGH” by Dr. Henry Wentz:*

**1897:**
- Veratum 10 drops every 2 hours
- Quinine sulphate grs ii every 2 hours
- Ice bags to back and chest
- Sponge and/or sponge baths
- Magnesium sulphate
- Whiskey
- Dovers powder grs ii prn
- MS grs 1/6 prn
- Pill digitalis gr 1/25 every 3 hours
- Hypo strychnine sulphate gr 1/20 prn

**1904:**
- Creosote 3 drops after meals
- Calomel gr ii in 1/4 gr doses followed by an enema
- Heroin gr 1/12 every 3 hours prn for cough
- Camphoric acid gr xx if night sweats are marked
- Mustard plaster to right side of chest
- Phenacetin and salol gr v tid
- cascara sagrada aromatic i fluid ounce prn

**1915:**
- Antiphlogistine to right side
- Mustard plaster to epigastrum
- Oil Ricini 1 fluid ounce stat
- Tr digitalis 10 drops tid
- Tr nux vomica 8 drops tid
- Cereus 10 drops tid
- If pulse becomes weak give strychnine gr 1/30 every 3 hours

**1930s & 1940s:**
- Chest x-ray
- Radiation therapy 1 treatment 100 R to right chest
- Specific Pneumococcal anti-serums were used in the 20’s and 30’s
- Sulfonamides in late 30’s
Educating our Community

Through our Collection

As already noted, we have initiated an effort by Lancaster County medical practitioners to document and preserve the history of the medical specialties and allied health professionals. These stories will be featured on our website, www.edwardhandmedicalheritage.org. The first of these will include the histories of ophthalmology, psychiatry, and gastroenterology. The following is an excerpt from the paper on the History of Ophthalmology in Lancaster County by Drs. Paul Ripple and John Bowman:

Excerpt from: A History of Ophthalmology in Lancaster County

By Paul Harnish Ripple, MD and John Bowman, MD

Historical references to ophthalmology go back to India, Babylonia, and Egypt. The Egyptians were particularly advanced in the practice and art of treating eye disorders, but it was the Babylonians, according to Herodotus, the historian of ancient Greece, who writes that medicine was practiced by the priests, and surgery was in the hands of skilled hand-workers or chirurgos (the Greek word that combines the words hand and work and means surgeon), who practiced couching for the removal of a cataract. Perhaps the art of couching (depression of the lens) and the removal of a cataract were first developed by the surgeons of India in the early 15th century BC, but it was the Babylonians, governed by the Code of Hammurabi, that motivated these skilled hand-workers to master couching. The Code allowed a handsome payment for a successful operation, which resulted in the successful removal of a cataract and the restoration of vision; but the cost to the surgeon who had a bad outcome, such as blindness, was horrific. He could have his hands cut off.

From the book “Our Medical Heritage” by Dr. Henry Wentz:

Cholera in 1854

The cholera epidemic of 1854 was part of the social and medical history of Lancaster County. There was fear, panic, and superstition. It was 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. His condition rapidly deteriorated and he died the following day. On the morning of August 8th, a patient at the County Hospital was found in a state of collapse and died within a few hours; by the end of the epidemic over 140 people had perished.

In Columbia, two immigrants from Germany, at least one of which was sick with cholera, were left at the train depot on September 6, 1854 and died within 48 hours. 30 people in Columbia were infected with the disease and died within another 24 hours. A panic appeared among the citizens and over 1/2 of the population - over 5000 people - fled from the town.

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, bringing cholera to Columbia. The predominant opinion was contagion.

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.

Dr. Atlee, attending physician at Lancaster County Hospital and the Almshouse, wrote 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."

Dr. Atlee's observation revolutionized the thinking as to the mode of transmission of this disease. He said, "Perhaps 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." Jenner had made a vaccine against smallpox in 1800. It was not until 1883 that Dr. Robert Koch of Germany became Dr. Atlee's "Jenner" when he identified the bacteria of cholera patients.