SYMBOLS IN MEDICINE

Gaby Frank, MD FACP
Associate Chief of Hospital Medicine
Denver Health Hospital Authority
Assistant Professor of Medicine
University of Colorado, School of Medicine
## Depiction of Physicians in Medical and Lay Media

<table>
<thead>
<tr>
<th>Item</th>
<th>Medical Journals</th>
<th>Newspaper, Comics</th>
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<td>Number</td>
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<td>White coats</td>
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<td>Stethoscopes</td>
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Blumhagen, DW. Ann Int Med. 1979:91:111-6
WHITE COAT
DISSECTION PERFORMED BY MONDINI DE CUZZINI BOLOGNA IN 1318 - OIL BY ERNEST BOARD
THE PLAGUE DOCTOR- FIRST DOCUMENTED OUTBREAK WAS IN OCTOBER 1347
ANATOMY LESSON OF DR. NICHOLAES TULP.
1632. REMBRANDT
THE VISIT OF A PHYSICIAN. 1637. FRANS VAN MIERIS THE ELDER
THE AGNEW CLINIC - 1889 - THOMAS EAKINS
THE WHITE COAT

• In the operating room (1889)

• In the laboratory (19th century)

• In the hospital (1905-1915)
WHITE COAT IN THE OPERATING ROOM

- ASEPTIC SURGERY 1889
- TWO-FOLD PROTECTION (PATIENT AND PHYSICIAN)
- FILM: “SOCIETY DOCTOR” PLAYED IN SPOTLESS WHITE!
- GOWN WAS NOT “SUITABLE FOR ACTIVE SCIENTIFIC MEN, VIRILE, AMBITIOUS…”
WHITE COAT IN THE LABORATORY

- MID 19TH CENTURY
- SCIENCE RUINED MEDICINE'S REPUTABILITY
- MEDICINE = CULTS, QUACKERY
- PROFESSION AND PUBLIC TURNED TO SCIENCE
- FLEXNER REPORT 1910
- TEXTBOOKS RE-WRITTEN
WHITE COAT IN THE HOSPITAL

• CARE OF THE SICK AT THE HOSPITAL

• A PLACE TO BE HEALED INSTEAD OF A PLACE TO DIE

• 1905-1915

• “All people connected with the process of healing were to be dressed in white, whereas the non-medical employees were to be given colored uniforms”. “THE MODERN HOSPITAL”. HORNSBY 1913.
THE MEANING OF WHITE FOR SOCIETY

• WHITE IS NOT TOO FUNCTIONAL BUT . . . . .
• WHITE CELEBRATES LIFE, BLACK MOURNING
• WHITE = PURITY (INNOCENCE AND UNARROUSED SEXUALITY)
• “CLEANLINESS (WHITENESS) IS NEXT TO GODLINESS”
• CANDOR (LATIN CANDIDUS=WHITE)= JUSTICE
FROM RTH LAENNEC TO DAVID LITTMAN
AUSCULTATION

IMMEDIATE

• EBERS PAPYRUS (1500 BC)
• HINDU VEDAS (1400-1200 BC)
• HIPPOCRATIC WRITINGS (400 BC)
• ALSO: HARVEY, MORGAGNI, WILLIAM HUNTER, ETC.

MEDIATE

• RTH LAENNEC 1816, RIGID MONOAURAL
• NP COMYNS 1828-29, FLEXIBLE MONOAURAL
• GP CAMMAN 1851, BINAURAL
• D LITTMAN 1961 THE “IDEAL STETHOSCOPE”
LAENNEC
PERFORMING
IMMEDIATE
AUSCULTATION
WITH HIS
STETHOSCOPE
IN HIS HAND AT
NECKER
HOSPITAL
RENE THEOPHILE HYACINTHE LAENNEC  
(1781-1826)

- Born in Quimper, Brittany, France
- Uncle Guillaume Francois Laennec.
- Hotel Dieu (age 14).
- Third class surgeon at the Military Hospital (age 19)
- Medical School in Paris (age 21)
LAENNEC’S TEACHERS

• Guillaume Dupuytren

• Jean Nicolas Corvisart.

• Gaspard Laurent Bayle

• Influenced by
  • Leopold Auenbrugger’s “Inventum Novum” 1976
  • Giovanni B Morgagni’s “De Sedibus et Causis Morborum” 1761
HOW DID HE INVENT THE STETHOSCOPE?

1. “Propriety forbade Laennec from placing his ear against her bosom”

2. “Obesity prevented the chest to produce adequate breath sounds”

3. “Laennec was afraid of contracting TB”

4. “Laennec saw a crowd on each side of a wooden beam, scratching, listening”
Laennec was a purist so he opted for Greek (instead of Latin/Greek combination).

- Stethos = chest
- Skopein = to view or to see
- He called it “baton or cylinder”
“I rolled a square of paper into a sort of a cylinder and applied one end of it to the region of the heart and the other to my ear, and was not a little surprised and pleased, to find that I could thereby perceive the action of the heart in a manner much more clear and distinct than I had ever been able to do by the immediate application of my ear”
“Direct auscultation was as uncomfortable for the doctor as it was for the patient, disgust in itself making it impracticable in Hospitals. It was hardly suitable where most women were concerned and, with some, the very size of their breast was a physical obstacle to the employment of this method....”
Correlated physical findings of lung and heart with necropsy findings.

August, 1819

Sir John Forbes, 1821

“That it will ever come into general use, notwithstanding its value, I am very doubtful;...”
LAENNEC TO AMERICA

• Forbes translation published in 1823

• James Jackson, Harvard 1827
• By November 1819, stethoscopes were on sale in London
• By 1826 (Laennec’s second edition), simpler models were on sale
• 1828-29 flexible mono-aural by Dr. N.P Comyns
• 1951. Binaural, Dr. N B Marsh. But inconvenient ear pieces
• 1851-55, Binaural, Dr. George Phillip Camman
• Kehler stethoscope (1901)

• Phonophone (1910)

• Miniature (1920)

• Pollard (1940)

• Faraday sonoscope (1956)
Rappaport-Sprague 1960s

Littmann 1962

2000s
DAVID LITTMANN.
AN APPROACH TO THE IDEAL STETHOSCOPE

• J.A.M.A, Nov 4, 1961
• Open chest piece (bell)
• Closed chest piece (diaphragm)
  • Single tubing-
  • Binaural, Ear pieces
• Stainless steel, Tygon, , high impact plastic. Cardiosonics.
• “... No effort was made to minimize the cost of materials or construction, and only the finest of these were employed.”
“The Golden Age of stethoscopy” 1819-1919

“Laennec not only stimulated clinical investigation, but, indeed, also laid the foundation of modern Medicine.”

REFERENCES:

QUESTIONS?

An architectural rendering of the future hospital by F.C. Eberley. It was prepared around 1892 and is still hanging in the hallway of the hospital’s administration building on Bannock Street. (Photo by Jonathan Clark)