



Wie verändert Telemedizin die Arbeit des Arztes?

Prof. Dr. med. Friedrich Köhler
Charité-Universitätsmedizin Berlin

FIT FÜR DIE DIGITALE ZUKUNFT?
Akademie der Konrad-Adenauer-Stiftung
28. September 2015

Struktur des Zentrums für kardiovaskuläre Telemedizin

- Abteilung der Medizinischen Klinik mit Schwerpunkt Kardiologie und Angiologie (Prof. Dr. med. Gert Baumann)
- gegründet: 1. April 2008
- Personal: 5 Ärzte und Nachtdienst aus der Klinik (24h/7d), 5 Pflegekräfte, 3 Study Nurses, 7 Teilzeit-Pflegekräfte in anderen Regionen

Forschungsprojekte

- Partnership for the Heart (BMWi, 2005-2011)
- Gesundheitsregion der Zukunft Nordbrandenburg – Fontane (BMBF, 2009-2017)
- Nanoelectronics for Mobile AAL-Systems (BMBF/EU, 2010-2013)

Tätigkeitsfelder

- Forschungsprojekte
- Telemedizinische Mitbetreuung von Patienten
- Lehre

➔ Weitere Informationen: <http://telemedizin.charite.de>



Lange Tradition von Telemedizin

British Medical Journal.] CLINICAL LECTURES. [Jan. 31, 1863.

chest, and z the deep intercostal space between them, it is manifest that if the chest-end of the instrument is wide enough to extend from rib to rib it will be so lifted at the edges placed on the ribs (x, x') that in the interval, where the integument sinks in between them, a wide chink will exist (a); just as the *President* steamship, which was lost some years ago, is supposed to have "broken her back" from being so long that her stem and stern rested on two great seas, and so, in the intervening trough, hoisted her out of the water; thus she was unsupported and parted amidships. If she had been half the length this could not have happened, for then she would only have been the length of a single sea, and not two seas, and would have rested in an inclined direction on one or other of them. In the same way, if the chest-end of the stethoscope is so small that it cannot cover two ribs (*i. e.*, not so large that it must cover two ribs) it may, by being inclined one way or the other, secure perfect apposition on the most uneven chest; for while one edge is tilted up by the rib the other sinks into the integument in the intercostal space, as shown in fig. 2.

Another important attribute in the chest-end of a

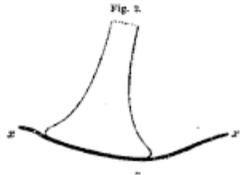


Fig. 2.

stethoscope is the character of its edge. It is a great mistake to have, as one often sees, a wide, flat edge; the wider and flatter the edge the more difficult, manifestly, its perfect apposition, on the principle I have just enunciated. The edge should be narrow and smoothly rounded, as seen in fig. 3, A; narrow to neutralise the effect of inequalities, rounded so as to prevent any sharpness and obviate pain to the patient. One often sees such a chest-end as is represented in section at fig. 3, B, which is doubly bad; bad from being broad and flat and so producing chinks, and bad from having a sharp cutting edge.

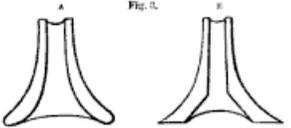


Fig. 3.

The ear-piece should be large for the very same reason that the chest-end should be small—to secure apposition and occlusion; for, the larger it is, the less critically exact and central need the apposition

fact, it is a very difficult thing so to apply the ear to a very small ear-piece as to produce perfect occlusion.

Moreover, the ear-piece should be flat. It is often cupped and hollow; this makes perfect apposition of the ear next to impossible. If there is any divergence from perfect flatness the surface should be rather projecting in the centre than receding; the parts about the centre of the pinna are thus brought into firm apposition with the stethoscope, and perfect occlusion secured. But, on the whole, I prefer that the ear-piece should be perfectly flat.

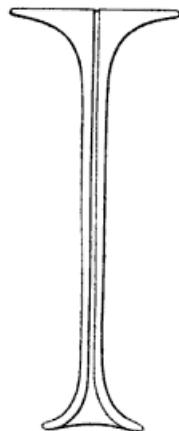


Fig. 4.

Fig. 4 represents the section of what I consider a very good stethoscope. It is half the "natural" diameter, *i. e.*, one-eighth the size. The ear-piece is flat and broad, and the most careless application of the ear would produce perfect occlusion; the chest-end is small, with a narrow and rounded edge. The measurements are—length seven inches, diameter of ear-piece three, diameter of chest-end one and a quarter, circumference of shaft one and a quarter.

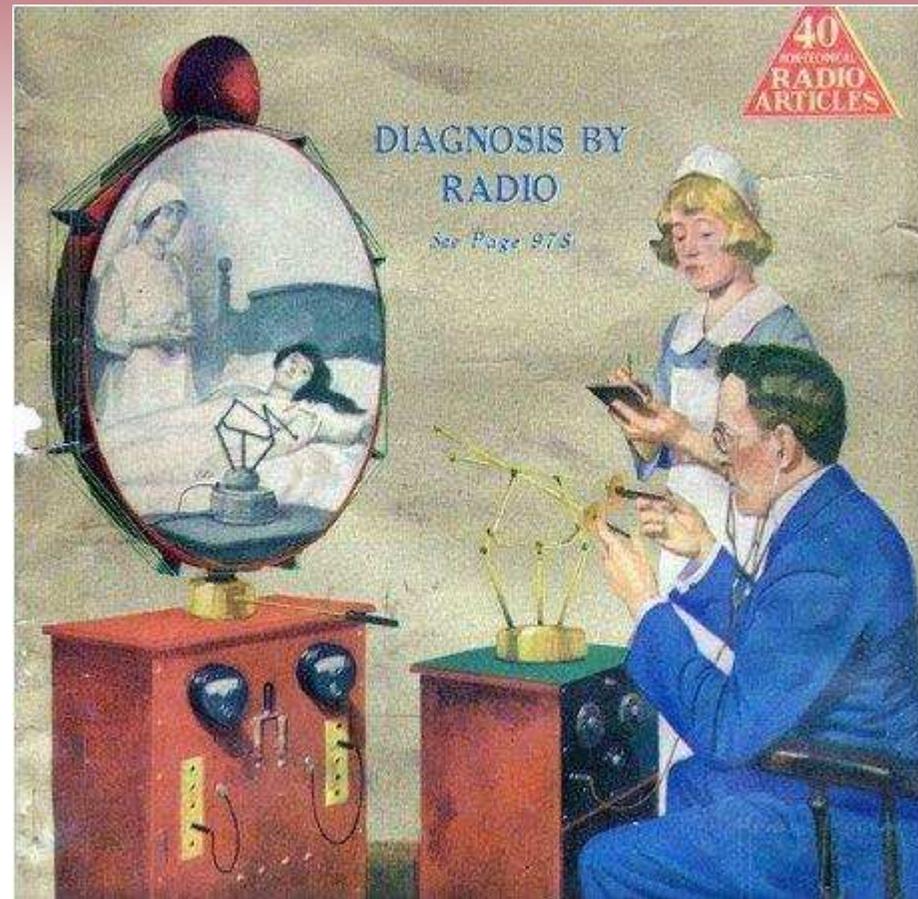
[To be continued.]

ALLEGED DEATH FROM IMPURE VACCINE LYMPH. The Registrar-General reports, in the returns of the week before last, that a child died from the effects of impure vaccine lymph. This registration-fact requires explanation.

GROWTH OF QUEENSLAND. At the date of our own last census—the beginning of April 1861—the population (not aboriginal) of the colony of Queensland was 30,059. On the 30th of September last, it was 41,941; namely,

1863

Stethoskop Beschreibung –
„Risiko der Distanz zwischen Arzt
und Patient“



1925

Radio Doctor

Links: Hyde Salter. *British Medical Journal* 1863;1(110):133-135.
Rechts: *Science and Invention* magazine, February, 1925

Definition: Telemedizin

Diagnostik und **Therapie** unter Überbrückung einer räumlichen Distanz mit Hilfe der **Telekommunikation**:
(z.B. Telekardiologie = Telemedizin in der Kardiologie)

a) zwischen Ärzten untereinander
(„doc2doc“)

b) zwischen Arzt und Patienten
(“doc2patient“), syn. „Remote Patient Management“



© Cisco Systems



© getemed AG

Konsequenzen für die ärztliche und pflegerische Berufsbildentwicklung

Ärztliche Fortbildung

- Kardiovaskuläre Telemedizin in der Hauptvorlesung Kardiologie
- Keine Zusatzbezeichnung / Teilgebiet kardiovaskuläre Telemedizin

Berufsbild: „Telemedizinischer Assistent“

- Ausgangsqualifikation: Fachpfleger Intensivmedizin
- Teil des Curriculums „Schwester Agnes“ ?
- Heart Failure Nurse?

