GUIDING THE NEW THINKING SURGEON

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UEMS, September 19th, 2015, Athens
“The more we know how to do things
the more we need to know what, in fact, we want to do”

Theodore Fox (1899-1989)
(for 40 years editor-in-chief in Lancet)
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- Who is really the New Surgeon or who must be today

- Why he has to be a Thinking doctor
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The cycle of clinical thinking

- COMPLEX CLINICAL PROBLEM (Within context of care)

Clinical reasoning

PERSONAL PROFESSIONAL JUDGEMENT

Deliberation

CLINICAL SOLUTIONS/OPTIONS

PERSONAL PROFESSIONAL JUDGEMENT

PRACTICAL WISDOM (phronesis)

WISE ACTION (praxis)
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“...as deeper you can see looking back, so much longer you can see in the future”

*Winston Churchill*

(From a lecture in Royal College of Physicians, March 1944)
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- In pre-historic era, the therapeutic methods were practiced in a primitive way

DEFENCE TO DISEASES WAS EXPRESSED BY INSTINCT

- Repetition ⇒ EXPERIENCE
- Empirical phase of employed medicine

EDUCATIONAL PROCESS WAS EVOLUTIONARY RATHER THAN REVOLUTIONARY
A short historical jump-back to ancient medical education

From 11th to 4th century BC (Hippocrates years) there are no scripts or documents to trust. (People were moving from MYTH to LOGIC)

The beginning of Medical Education must be placed in the Hippocrates era. Surgery and Internal Medicine were taught, with the sense of art, which could be knowledge to spread and convey.
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Medicine was one of the arts that was taught in ancient Greece. Mostly trauma and Infections.

Centaurus Chiron teaching

Achiles treating Patroclos

Machaon taking care of wounded king of SPARTA Menelaus
Unfortunately this type of education was strictly family business (From father to son)
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- The past 15 centuries medicine and medical education reflect the cultural development of mankind.

- Initially education was for people who wanted to learn how to do things following practice of the professor.
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- With the time we thought that new technology would help.
OR TRAINING BECAME QUITE DIFFERENT
"Okay your father managed to get a mouse. Now how do we use it?"
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New perspectives in knowledge

Re-orientation our view of knowledge

The nature of practice knowledge has became explosive
Nobody can became a doctor just by reading books
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If somebody sails only by experience, he moves to uncharted waters.

If he wants to sail only by the books he will never be at sea.
Training in simulators
A schematic vision of educational program JCHST 2005

Structured by examinations-evaluation and close surveillance from entrance to exit.

Progress of Trainee

Professionalism
Technique
Knowledge

Evaluation
Proeed

Initial
Intermediate
Advanced
Continuing Medical Education (CME) includes educational activities, targeting the development of knowledge, dexterity and professional practice and relations that doctors employ to treat patients, service the public and improve his profession as well.
CME- Brief historical notes

- University hospitals and medical colleges:
  - Grand rounds
  - Surgical meetings
  - Bibliography reviews

- 1950-1980: Guidance by the pharmaceutical industry → prejudice and biased results

- 1976: Society for Academic Continuing Medical Education, USA
  - Planned protocols and scheduled studies
  - Assessment of needs and evaluation.

Limited efforts - Private initiatives
CME – Brief historical notes

- Europe, 1993: Revision of agreement of Dublin. Fortification of the meaning and target of CME.

- 1994: (European Union of Medical Specialties) Undertakes the role of Coordinator of CME in Europe.

- 2000: Foundation of EACCME: European Accreditation Council for Continuing Medical Education.
STATUS OF CME IN GREECE

- UEMS ↔ Panhellenic Medical Society (PMS)
- PMS: Is authorized grantor of CME-Credits in Greece.
- Credits are provided through congresses, seminars, e.t.c

HOWEVER

- CME are optional-elective
- «Congress activities» are many times overly, inordinate or unmeasured
- Rules of verification are rather loose.
21\textsuperscript{st} CENTURY IS A QUITE DISTINCT PERIOD FOR THE NEW SURGEON TO ADJUST
Intestinal apparatus by Denan
Wooden button by Reybard
Intestinal apparatus by Denan
Practice Through Surgical Judgment

TECHNOLOGY USED BY A THINKING SURGEON
Robotic Technology

Laparoscopic and NOTES

Robotic and remote telesurgery

Image guided surgery
Surgeon
Robot DaVinci

Scrub nurse
Penelope

O.R nurse and
Surgical needs
The relation of technology and humans was and will remain friendly. User, however, will ever be the doctor.
We never accept the robot to be our doctor
Do the robots really dream?

http://depts.washington.edu/biointel
Disruptive Visions

“Future is not what it used to be”

....Yogi Berra
Surgery beyond tradition

Surgery by “thinking”

2001 Brain chips

2003 Animal experiments

2006 Clinical studies

200? “the thinking cup”
Surgery beyond tradition

Intracellular surgery

Should we eventually operate directly in DNA so as to modify concrete genes?

Περισσότερα θα ακολουθήσουν
2025...will nanotechnology abolish conventional surgery?

buckyballs

&

buckybombs
Teaching and Trainers need some space

Damn these….fiscal consolidations
The first step toward change is to understand how one’s own behavior affects others.
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EDUCATIONAL PROCESS WAS EVOLUTIONARY RATHER THAN REVOLUTIONARY
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1. Complex Clinical Problem (within context of patient care)
   - Clinical Reasoning
   - Personal Professional Judgement

2. Clinical Solutions/Options (the right thing to do generally)
   - Deliberation
   - Personal Professional Judgement

3. Practical Wisdom (Phronesis, the supreme intellectual virtue)

4. A Professional Judgement (the best thing to do in this specific case)

5. Wise Action (Praxis)
   - This may become a cyclical process

Phronesis recognizes the ethical significance, understands what is required in the particular moral situation, and has a willingness and capacity to act so that these take a concrete form for this case.