The two-cycle model in medical education

Should we be afraid of this big bad wolf?

Prof dr Th J (Olle) ten Cate
Center for Research and Development of Education at UMC Utrecht, the Netherlands
First:

- Medical education did *not* invent the 2-cycle model – would have probably never thought of doing so...
- But if asked: *can* it in any way be useful to do so...?
Overview

- What was Bologna Declaration again?
- How does it fit with medical education?
- What progress has been made with implementing the 2 cycle model in general, and in medical education?
- How creative can we be with the 2 cycle model?
- About wolves and cycles
Bologna Process

- [Sorbonne 1998]
- Bologna 1999
- Prague 2001
- Berlin 2003
- Bergen 2005
- London 2007
- Leuven 2009
2000-2010:

- Harmonize higher education in Europe
- Use comparable degrees
- 3-cycle model: Bachelor-Master-Doctorate
- Use similar credit units: ECTS (28 hrs)
- Standardise quality assurance
- Stimulate international mobility

Would these aims enhance Med Ed quality?
Current situation of EU’s Med Ed

EU directives:
- 6 year course (“5500 hours”)
- Mutual recognition of MD license

In practice:
- No similar objectives
- Different length before license
- Different diploma terminology
- Different curricular models and varying extent of horizontal and vertical integration
- Limited student mobility
Has modernisation of medical curricula enhanced international harmonisation?
Trends in medical education development

Harden’s SPICES model

- Student-centered
- Problem-based
- Integrated
- Community-oriented
- Electives
- Systematic clinical teaching
Example: Dutch curricula, developing from H to Z structure
Example: Dutch curricula, developing from H to Z structure

little guidance; much responsibility

Clinical training

much guidance; little responsibility

theoretical foundation
Trends in curriculum development

- **basic science**
- **clinical theory**
- **clinical clerksh**
- **pre-registr. practice**
- **specialty training**

**traditional curricula**

**innovative curricula**
Trends in medical education development versus Bologna aims

Harden’s SPICES model

- Student-centered
- Problem-based
- Integrated
- Community-oriented
- Electives
- Systematic clinical teaching
Trends in medical education development versus Bologna aims

Harden’s SPICES model
- Student-centered
- Problem-based
- Integrated
- Community-oriented
- Electives
- Systematic clinical teaching
Trends in medical education development versus Bologna aims

Harden’s SPICES model

- Student-centered
- Problem-based
- Integrated
- Community-oriented
- Electives
- Systematic clinical teaching
How do EU curricula concord?
Examples of recent curricular structures in Europe (AMEE 2001)

- **basic science**
- **clinical theory**
- **clinical clerksh**
- **pre-registr. practice**
- **specialty training**

- **NL**
- **D**
- **BE**
- **UK**
- **DK**
- **SF**
Problems, internationally

Integration has reduced
- ..common educational language
- ..recognition potential of courses

There is diversity of transitions from undergraduate to graduate medical education

Assessment of international medical graduates differs greatly

--> Harmonisation would be welcome!
Why harmonise in med ed?

- Little information exchange on details of curriculum content
- Horizontal integration leads to phantasy names of curriculum units
- ECTS exchange is hampered if no common language of med ed exists
- Assessment of international medical graduates should roughly be equal
A few statements so far

- Several arguments in favour of international dialogue and “calibration” of medical education
- But restructuring should stimulate educationally sound principles and not hamper intrinsic development of med ed
- Curricular change and improvement often do not happen spontaneously; external forces can trigger change
What progress did the Bologna cycles model make in the EU in general?
General progress 2002
General progress early 2006

Implementation of Bologna Cycles

- 0-50 %: 2
- 50-70 %: 9
- 70-85 %: 6
- 85-100 %: 19

www.ond.vlaanderen.be/hogeronderwijs/bologna/documents/EUA_Trends_Reports.htm
What progress did the Bologna cycles model make in the EU in medical education?

*Patrício et al. Med Teacher 2008; 30: 597-605
Should med ed transform into 2 cycles?

- Yes: 7
- No: 19
- Perhaps: 15

2007 country policies

41 BD signatory countries with medical schools

- Medical schools excluded: 19
- Yet undecided on policy: 11
- Decision to adopt left with schools: 4
- Mandatory for all medical schools: 7

Patrício et al. Med Teacher 2008;30:597-605
Arguments pro

- It can stimulate development of international standards
- It can enhance student mobility if bachelor objectives are comparable
- Students with a Ba degree can pursue a science Ma degree (+/- continue medicine)
- Graduate entry into an extended medical master phase may be possible
- A master diploma can stimulate research interest in doctors
Arguments against

- It does not fit with a horizontally and vertically integrated curriculum
- Early clinical contact is not meant for those who will not become a doctor
- Training medical bachelors is a waste of resources
- Society has no employability for medical bachelors
How creative can we be?

- Dutch government issued the two-cycle model for medical education
- What has happened since?
- No schools have compromised their curriculum principles
- The Dutch Blueprint of Objectives was used to derive a global bachelor level description
- Wherever suitable, “Dublin Descriptors” were used to adapt curriculum
Dublin descriptors

- Established March 2004
- Describe general qualifications of Bachelors, Masters and Doctorates
- Ba: general academic abilities
- Ma: specific academic (scientific) abilities
The Bachelor cut at UMCU

Clinical training

MD and master diploma

Bachelor diploma

Theoretical foundation
Graduate entry

- Two schools have started a four year graduate entry second track
- A four year “medical research master program” is now established in legislation
Utrecht and Maastricht medical programs

Post graduate training

Ma-program
- regular
- curriculum

Ba-program

(300 / yr)

graduate entry
- medical
- research master

(40 / yr)

selection

Academic BSc, e.g., Life Science, Biomedicine, Health science

acad. high school
Other possibilities

- Students may interrupt medical school to pursue a master’s degree
- Career switch: students retain a diploma in stead of being a medical drop-out
- International medical graduates without a recognized diploma may start in the master’s phase to obtain a Dutch diploma
Afraid of the BaMaWolf?
Afraid of the EU BaMaWolf?
Holland in short

- Not afraid of changes
- No wolves
- Many bi-cycles
The Dutch bi-cycle model