Recent Development in Medical Education

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Background

3000 BC  Evidence of Anatomic Knowledge in Form of cave paintings in Pre - vedic circa

800 BC-1000 AD Golden age of Indian medicine documented by writings of Charaka and Susruta in form of Ayurveda and Siddha system

13th century- Unani system of medicine was introduced by Muslim rulers

1810 Homeopathy gained foothold in India till the advent of British in 18th century.
Allopathic system of medicine

1. British established Madras Medical School in 1835.

2. Western medicine- introduced by Portugese in Goa (1840), started the Medicine and Pharmacy Licentiates (Goa Medical College).

Reforms

1. 1946- Bhore committee- Recommended major changes in medical education- 3 month’s training in PSM to prepare “social physician”

2. 1975- Srivastava committee- Medical Education and Support Manpower:

   Family and community oriented practitioner with social responsibility

   Advocated and recommended reorientation of medical education according to national needs through a medical education commission on lines of UGC.

3. 1997- GoI on recommendation of MCI promulgated the “Regulations on Graduate Medical Education” through a gazette notification.

4. In 2011 the Board of Governors of MCI had announced a fresh set of curricular changes entitled ‘Vision 2015’ to re-look at the various aspects of medical education, training and practice for the country.
## Medical Colleges

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Private

Government
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One medical college for a population of 11.5 million in Bihar and 9.5 million in UP.
5 south western states with country’s 31% population account for 58% of medical colleges in India.
GAPS

• Gaps in Learning
• Gap in Patient Care
• Gap in distribution of tertiary care centres
• Gap between medical colleges & learning standards
• Gap in pay structure leading to flocking at 1 place
• Gap in Student & Teacher relationship
Advances in filling these Gaps

- Evidence based medical education and patient care
- Information technology leading the revolution in learning patient care
- Single opinions being replaced by group discussion
- Simulator based learning
- Tele Radiology
- Robotics
- Newer treatment modalities both invasive and non invasive
Evidence Based Learning

• Treatment now decided by evidence in favour and against

• Online tools help in searching journals and reviews

• Newer treatments can be undertaken with sufficient confidence

• Peer support in deciding treatment plan in critical situation
Information Technology

• IT helping Doctors, Patients as well as Students

• Articles can be read & peer reviewed

• Doctors teaching Students via satellite transmission

• Greater access to recent developments
Group Discussion

• Single handed decisions are being replaced by group discussions

• Group Discussion helping both patient and learning

• Helps to filter content
Online Learning

• Online learning helping everyone including patients

• Learning can be in the form of Wiki’s, Websites, Apps, Podcasts

• Provides Detailed and In-depth view

• Can be accessed anytime

• Online CMEs are a common place now
Simulator based learning

• Simulators helping students both UG’s & PG’s

• Help in learning life saving procedures like Neonatal Resuscitation

• Elective Procedures like Surgeries can be practiced on mannequins

• Software gives result about the mistakes and areas of focus
Treatment Modalities

• Newer Treatment Modalities like Robotics, Tele Radiology & Tele Medicine

• Help both Doctors and students

• Helping students connect with specialists and super specialists

• Minimally invasive surgery are being taught on Simulators
See the Differential
MCI

VISION 2015
Foundation Course (2 months) + 1st M.B.B.S. - 14 months
2nd M.B.B.S. - 12 months
Final M.B.B.S. + elective (2 months) - 28 months*
Internship One Year - 12 months

Total Duration of Course = 5 1/2 years

* Wait period of 2 months should be allowed for preparation of NEET-PG
Foundation Course

• Foundation course will be of 2 months duration after admission to prepare a student to study Medicine effectively.

• This period aims to orient student to national health scenarios, medical ethics, health economics, learning skills & communication, life support, computer learning, sociology & demographics, biohazard safety, environmental issues and community orientation.

• Overview in the three core subjects of Anatomy, Physiology and Biochemistry to be taught in first MBBS.
Elective Posting

- Examples - Bio Informatics, Tissue Engineering/ Processing,
- Computer and Computer Applications, Immunology,
- Genetics, Human Nutrition, Sports Medicine, Laboratory Sciences, Research Methodology, Ethics, Accident and Emergencies (A&E), Community Projects, HIV Medicine,
- Tissue Culture, Pharmaco Kinetics/Pharmacodynamics / Pharmacoeconomics, Assisted Reproductive Technology,
- Ethics & Medical Education.
PROPOSED ALGORITHM FOR NATIONAL ELIGIBILITY ENTRANCE EXAMINATION (NEET) valid after 2016

NEET - UG

University Examination

- I\(^{st}\) Professional Exam
- II\(^{nd}\) Professional Exam
- III\(^{rd}\) Professional Exam

Common Exit Examination (Supervised by MCI)

50% RANKING FOR P.G. COURSE

50% Internship

Licentiate Examination

Assessment of skills and competence at end of internship

Counseling for M.med

M. Med. Final common exit examination

INdIAN MEDICAL GRADUATES (IMG)

Basis for counseling of MD / MS / DM / Mch / PhD / Fellowship
Skill Development & Training

• A mandatory & desirable comprehensive list of skills has been planned and would be recommended for Bachelor of Medicine and Bachelor of Surgery (MBBS) Graduate.

• Certification of skills would be necessary before licensure.
M.B.,B.S.

ENTRANCE & SELECTION TO PG COURSE (M. MED.)

PG course of 2 years

Six months of 2nd year @

District Hospital Laboratories
Family Physician Research Centres

Pass

Available career opportunities after PG

Specialist

Pass

Examination + 5% incentive for rural work

Option 1
1 year, Research, dissertation & Log book & teaching
MD

Option 2
2 years with choice of Dual degree, (Hospital Admin, Bioengineering, Medical education, etc.)

Option 3
3 years, Research, MD + PhD

Option 4
2 years MD + Fellowship
MD + Fellowship

Option 5
3 years
MD + DM
1 year
DM + 1 year fellowship***
Duration Of Various PG Courses

Total duration after finishing MBBS course

- M. Med (Specialist): 2 years
- MD: 3 years
- Dual degrees: 4 years
- MD + Fellowship: 4 years
- MD + PhD: 5 years
- MD + DM: 5 years
Roadmap Ahead

• Gap Analysis studies are required

• India is not able to implement such technical advances as are prevalent around the globe

• Once temple of learning in ancient times it is now lagging behind

• Gaps in research should be plugged with appropriate use of technology and modern methods of learning
Shaping tomorrow’s leaders

• To be effective in the modern system, they will need to possess the ability to lead teams and participate in effecting positive change.

• Integrating leadership and teamwork training into curricula that will prepare today’s medical students to become future leaders.