Medical Council of India

Proposed

POSTGRADUATE MEDICAL EDUCATION
EXECUTIVE SUMMARY PROPOSED POST GRADUATE MEDICAL EDUCATION, MCI

MCI specific objectives on Post graduation are to make Post graduate medical education more relevant to the country’s needs by making it more relevant, skill oriented and at the same time ensure adequate career options for medical graduates. It addressed these objectives by the following:

1. Assessing needs of different courses
2. Restoring importance of internship
3. Restructuring & shortening PG courses to increase options after qualification
4. Offering multiple paths of career advancement
5. Suggesting uniformity of nomenclature and duration
6. Increasing PG seats for increasing number of teachers and specialists
7. Providing service of postgraduates to smaller centers
8. Restructuring the PG examination pattern to emphasize skill development & introducing continuous internal assessment.
9. Emphasizing research in the Academic stream

Nomenclature and duration issues:

Different types of postgraduate programs by different boards, Lack of uniformity of syllabus across the country; Fellowship and certificate courses are not under the purview of the MCI; diplomas are not recognized & are just as stop gap arrangement; less number of diploma seats; lack of diplomas in critical specialties like surgery, medicine etc. All these need to be immediately addressed through an exhaustive review of current PG Courses’ nomenclature and criteria to make it uniform and standard

- A hybrid curriculum is proposed for the PG courses.
- Extensive faculty development Training: Prior to implementation of curriculum teachers would be given extensive training on competency based curriculum and associated student assessment.
- Regular revision of curriculum at periodic intervals depending on newer developments in the field.
- Duration and Training: The duration of training should be uniform; Diplomas – two years, Degrees – three years, Fellowships –two years , DM / MCH – three years & Post DM fellowships – two years.
- **Log book, extra departmental rotations** for at least six months in allied disciplines

- **Continuous formal structured assessment** with regular feedback is proposed for the post graduation. National common entrance examination is proposed for the entry & selection to post graduate and superspecialities courses.

- **Assessment of needs and distribution of courses:** The need based assessment to be done on the reliable data on morbidity pattern and also existing numbers of specialists of various categories. The new colleges & new courses should be initiated in underserved areas areas keeping in mind equitable distribution of medical facilities across the country subject to availability of facilities and expertise.

- **Skill center:** Establishment of skill labs should be mandatory. These would be of help to several disciplines to improve the quality of their training. Funds may have to be allotted from a central source to existing colleges for establishment of skill labs.

- **Defined entry and exit criteria for courses that are transparent and uniform – extensive examination reforms**

- **Licensing of Institutions imparting post-graduate medical education**- Licensing process should also include assessment of associated institutions, laboratories and health facilities where students will be sent for offsite training by Medical Council of Accreditation should be encouraged as a quality improvement process.

- **Continuing Professional Development (CPD)** - This process is to improve the performance of the doctor in his practice and thus improve the care that patients receive. The MCI guidelines regarding accreditation of organizations for conduct of CMEs and the individual requirements are already in place. There is a need to ensure implementation of these guidelines and the use of foolproof methods to ensure participation in CME activities on a regular basis. Innovative models to ensure wider coverage and effective implementation of the guidelines are recommended. There is a need to encourage self learning using the distance learning modality using online courses. MCI also needs to develop an electronic resources library that can be made available to all physicians at a reasonable cost.

- **Program evaluation of the proposed new format course**- Program evaluation of the proposed M Med course would be done at various levels, using Kirkpatrick Model:

  1. Level I and II evaluation (process): In the first two years after initiation of the course by the:
     a. Feedback from students and faculty regarding training, clinical experience and assessment. This can be done by questionnaires /online surveys and interviews.
     b. During the course formative assessment may be carried out at intervals to evaluate learners’ progress
2. Level III evaluation (product): At the end of the training of the first batch
   a. Evaluate the knowledge and skills acquired by degree holders at the end of the course – by interviews, observations and matching skills.
   b. Career choices and employability (registry)

3. Level IV evaluation (impact) evaluation: After 6-7 Years
   a. Evaluate impact of this course on specialist pool, community health, rural and urban specialists distribution and other effects on the human health system

4. INCLEN can be requested to do a process evaluation two years after implementation and suggest mid course corrections, if required.

- **Exit criteria:** The curriculum is largely competency based; the exit criteria should also focus on assessment of acquisition of competencies and therefore would be criterion referenced.

- **Entrance examination for the postgraduate courses:** Once approved the entrance examination can be commenced with phase one for the new batch of MBBS students being admitted to the course in July 2011. This plan for the entrance to Post graduation can be mentioned in the brochure of MBBS. They will take the first professional examination 1 & 2 in 2012 & 2013 and the National Exit Exam step1 examinations in 2015 & Step 2 at completion of internship. Till such time the batch of MBBS students admitted in 2011 reach internship the old scheme of examination for admission to the PG courses would continue.

- **Projected Needs – Assessment & Interventions:** A reliable morbidity data from MCI & WHO, the basic principle followed took cognizance of the following:

  a. The projected number also makes allowance for 30% deficiency that exists now.

  b. The numbers proposed for immediate increase reflects doubling of seats in some specialties that are critically short and a marginal increase in others.

1. The proposal visualizes doubling of seats by 2020 and a further doubling by 2030.

2. Basic specialties like Anatomy have enough seats per year but many seats are vacant and hence shortage of teachers persists. There is, therefore, a need for more incentives- like differential pay scales, special pay or accelerated promotions for teachers in these subjects. In some areas such as Anatomy/ Physiology/ Pharmacology, one may also have a cadre of non-medical teachers. To attract medical graduates to subjects like Anatomy they may also be given the opportunity to work as part time in clinical departments and these streams can be collaborated with short term specialized courses such as Genetics in Anatomy, Criminal Forensic Pathology, Infection control with Microbiology, Waste Management with Community Medicine, Pharmacology with Therapeutic drug monitoring or pharmaco vigilance.

3. For Basic sciences and Para clinical sciences, need assessment has been made based on number of teachers required in medical college. Numbers have been doubled to take care of other health care facilities and dental/ nursing colleges. To promote research it is desirable for any postgraduate in basic sciences (pre & para clinical to have at least two publications during this tenure.
4. Involvement of all medical undergraduate and postgraduate students in the community based health programme initiated by the institute or at the national level.

5. The problem of shortage is not only due to lack of seats but also due to the lack of popularity of courses amongst potential candidates. Hence private institutions are hesitant to start courses in basic specialties. Special incentives may need to be given to these institutions for this purpose.

6. The projected increase in number of specialists is notional. Passing rates are up to 70% in MCI courses and 50% in National Board courses. Hence the number of doctors available will be about 70-80% of the projected numbers every year. (Approximately 20% are lost due to failures in examinations, migrations etc.)

7. With the suggested increase in numbers of outgoing postgraduates, the concern for faculty development becomes much more critical. The quality of output will be far from desirable unless measures in this direction are immediately initiated. Faculty development programme should be made mandatory at all levels of teaching.

8. To encourage research, collaborated research protocol between the medical institutes in remote areas and well equipped medical centres in urbanized cities can be permitted. The number of the publications and the research accomplishments should be taken into account for the accelerated promotion of the teachers.
The Rocket model concept of medical education
(Vision 2015)

Number of Professionals generated per year

A. MBBS graduates – approximate number – 50,000 / year
B. M. Med – approximate number – 50,000 / year
C. MD – approximate number – 25,000 / year
D. Fellowships – approximate number – 7,500 / year
E. DM – approximate number – 5000 / year

(The current nomenclature MS and MCh would stand abolished)
## Comparison of Number of Examinations in the current and proposed

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Current</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection to MBBS</td>
<td>One ( May be National, or State)</td>
<td>One National</td>
</tr>
<tr>
<td>Exit examinations</td>
<td>MBBS – I</td>
<td>In two steps, step 1 at the end of 4 years and step 2 after internship.</td>
</tr>
<tr>
<td></td>
<td>MBBS – II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MBBS – IIIA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MBBS – IIIB</td>
<td></td>
</tr>
<tr>
<td>PG selection exams</td>
<td>One at the end of internship (National and State)</td>
<td>One but held in two steps coinciding with final phase of MBBS &amp; internship.</td>
</tr>
<tr>
<td>PG exit examination</td>
<td>One at the end of three years</td>
<td>One at the end of two years</td>
</tr>
<tr>
<td>Post PG selection</td>
<td>One for each subject</td>
<td>One at M Med level which will be for entry to the post M Med streams</td>
</tr>
<tr>
<td>Post DM/ Dual degree programs, fellowships</td>
<td>One</td>
<td>One</td>
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</tbody>
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**Advantages of the proposed pattern:**

1. Less stress on students since they prepare for the same subjects for both University and selection examination.
2. Only one National entrance examination instead of appearing for several entrance examinations, one for each institute or state.
3. Will restore internship as a training period instead of being an examination preparing period.
4. No extra stress on rural and economically challenged students due to lack of coaching centers.
**Suggested Algorithm for MBBS Examination**

![Flowchart image]

- **Common MBBS Entrance**
  - Fail
  - Re-appear at 1 year with next batch*
  - Fail*
  - Re-appear at 3 months
  - Fail
  - Pass
  - National Exit Exam Step 1
    - (Final MBBS Exam)
    - Second Professional Exam
    - First Professional Exam
  - National Exit Exam Step 2**
    - Assessment of skills and competence at end of internship
  - Basic Doctor
  - Entrance to PG
    - Steps 1 + 2 scores will be combined

Note: Both the exit exams will be necessary for licensure to practice independently & MCI registration.

* The internship undertaken by the candidate would be considered invalid till the clearance of National Exit Exam Step 1. The candidate would be multiple opportunities at different time intervals to clear this exam.

** The National Exit Exam Step 2 would be conducted after completion of internship.
Suggested Algorithm for PG Examination

**Available career opportunities after PG**

- **Option 1**: 2 years with choice of Dual degree, (Hospital Admin, Bioengineering, Medical education, etc.)
- **Option 2**: 1 year, Research, dissertation & Log book & teaching
- **Option 3**: MD + Fellowship
- **Option 4**: DM + 1 year fellowship***
- **Option 5**: 3 years

Duration of various PG courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
</tr>
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<tbody>
<tr>
<td>M. Med (Specialist)</td>
<td>2 years</td>
</tr>
<tr>
<td>MD</td>
<td>3 years</td>
</tr>
<tr>
<td>Dual degrees</td>
<td>4 years</td>
</tr>
<tr>
<td>MD + Fellowship</td>
<td>4 years</td>
</tr>
<tr>
<td>MD + PhD</td>
<td>5 years</td>
</tr>
<tr>
<td>MD + DM</td>
<td>5 years</td>
</tr>
</tbody>
</table>

- *Six months offsite clinical posting is mandatory.
- **The basic postgraduate course would be of 2 years duration, however at the end of post graduation, candidate would have multiple opportunities to pursue career.***
- ***Fellowship after DM course would be optional.***