



राष्ट्रीय आयुर्विज्ञान आयोग **National Medical Commission**

NMC Compendium (2020–2023) **– Faculty Development Program –**



Volume 1

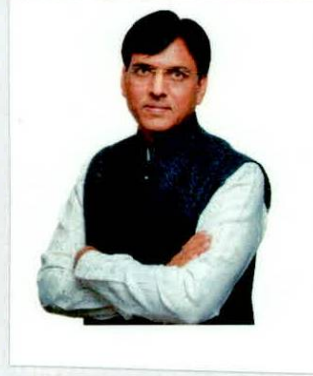
Publication Division, National Medical Commission
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DR. MANSUKH MANDAVIYA



सत्यमेव जयते



MESSAGE

I express my appreciation for the unwavering commitment of the National Medical Commission (NMC), India's Apex Regulatory Authority, in upholding the highest standards in Medical Education. It ensures the delivery of top-notch Medical Education, Practice and Training throughout the nation.

I do appreciate the diligent efforts of NMC in the bringing out of valuable Publications, like the Compendium on NMC Advisories, Public Notices, Circulars & Guidelines for the years 2020-21 and 2022-23 and the Compendium on NMC Regulations (2020-23). I hope that these publications will be a valuable resource for the diverse stakeholders of the health ecosystem including Policymakers, Medical Education Fraternity, Researchers, Clinicians, other Healthcare Professionals, and the general public seeking awareness of Policies and Regulations of Medical Education and Practice.

I extend my heartfelt congratulations to the entire team for publication of the above compendium and hope to have more such commendable endeavors by the Commission in the future.

(Dr. Mansukh Mandaviya)

सुधांश पंत

सचिव

Sudhansh Pant
Secretary



सत्यमेव जयते



MESSAGE

The National Medical Commission (NMC), India's premier regulatory body has been committed to upholding the highest standards in healthcare education, ensuring delivery of quality medical education, practice and training across the nation.

I applaud the diligent efforts of the Publication Team of NMC who have worked hard to bring Publications on Compendium on NMC Advisories, Public Notice, Circular & Guidelines (2020-21), Compendium on NMC Advisories, Public Notice, Circular & Guidelines (2022-23) and Compendium on NMC Regulations (2020-23). I envision that it would serve a variety of audiences such as the policymakers, researchers, clinicians, other health professionals and the public which needs to be aware of the Gazette notification, Advisories, Circulars, Public Notices etc. issued by NMC from time to time.

Congratulations to the team and waiting for more such endeavours.

Dated 13th November, 2023

Sudhansh Pant

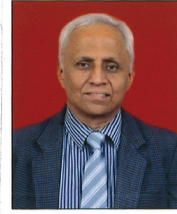
(Sudhansh Pant)



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Medical Assessment & Rating Board
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राष्ट्रीय आयुर्विज्ञान आयोग
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
भारत सरकार
National Medical Commission
Ministry of Health & Family Welfare
Government of India

MESSAGE



I am delighted to announce the publication of the Compendium of the National Medical Commission (NMC). This provides a comprehensive collection of Regulations, Guidelines, circulars, notices, advisories and other important documents.

The compendium is an important milestone in the journey towards mission of NMC; excellence in healthcare delivery. The contents of the compendium help all the stakeholders including the functionaries at NMC to adhere to the standards that will help sound medical education and practice of the profession. The National Medical Commission is committed to fostering an environment of innovation, professionalism and mutual trust within the medical community.

I urge all stakeholders to become familiar with all the Regulations, Guidelines and other advisories brought out by the NMC using this compendium.

Let us all work together to elevate the standards of medical education and care in our country, ultimately benefitting the health and well-being of our fellow citizens.


(Dr B.N. Gangadhar)



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Post Graduate Medical Education Board



सत्यमेव जयते
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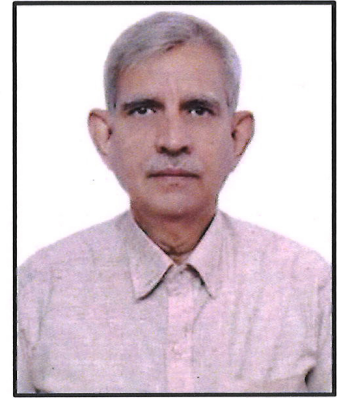


राष्ट्रीय आयुर्विज्ञान आयोग
भारत सरकार
National Medical Commission
Government of India

Message

It gives me immense pleasure in being a part of NMC to share the information with the readers and particularly stake holders about various Public Notifications, circulars, guidelines & regulations issued by National Medical Commission (NMC) and its four Boards.

As the readers are aware, NMC was created by the Act of Parliament on 25th September, 2020 replacing the erstwhile Medical Council of India (MCI). Since all officers and employee of erstwhile Medical council of India where asked to vacate their offices with immediate effect and new staff were appointed over a period of time, there were some difficulties initially. In spite of that everyone in NMC worked hard to stabilize the organization to serve the purpose for which it was created.



I congratulate Prof. Yogender Malik and his team to take up this Herculean task and coming out with this compendium which will be very useful to the students, to the faculty, to the academia at large, to the friends involved in legal system and will also be a window to the world for understanding and following Indian Medical Education, particularly when WFME has accredited NMC for the coming ten years. In turn this will help NMC also by receiving feedbacks and suggestions from various stake holders and luminaries.

Vijay V. Oza.
(Dr. Vijay Oza)

**President,
Post Graduate Medical Education Board, NMC**

डॉ. अरुणा वि. वणीकर

Dr. Aruna V. Vanikar

अध्यक्ष/President

स्नातक चिकित्सा शिक्षा बोर्ड

Under Graduate Medical Education Board



सत्यमेव जयते



MESSAGE

It gives me immense pleasure in being a part of NMC to share the information with the readers and particularly stake holders about various Public Notifications, circulars, guidelines & regulations issued by National Medical Commission (NMC) including Undergraduate Medical Examination Board (UGMEB), from time to time.

As the readers are aware, NMC was created by the Act of Parliament on 25th September, 2020 bringing an end to the erstwhile Medical Council of India (MCI) and the aura associated with it.

This timeline of NMC & UGMEB may be divided into two parts; the first part from year 2020 to year 2021 as covid period; and years 2022 to 2024 as post-covid period. NMC was born in the period when the entire world was caught in snares of the dreadful covid-19 virus pandemic. Medical education of our country was also hit by this attack. By the time, we were recovering from it, Ukraine-Russia war overtook the world scenario and once again affected education of Indian students studying in CIS countries and in neighbouring countries.

Even in this turmoil, NMC continued to function as effectively as possible, with whatever manpower and resources available to it and practically no institutional memory. This publication including a series of Notifications were issued from UGMEB, which includes issues broadly classified as follows. New notifications shall be added as and when needed.

- (i) Related to conduct of medical education and examinations in online and offline mode.
- (ii) Academic calendar for various batches from academic year 2020 to 2023.
- (iii) Regulations/ Guidelines:-
 - Compulsory Rotating Medical Internship Regulations, 2021
 - Foreign Medical Graduate Licentiate Regulations, 2021
 - Prevention of Ragging Regulations, 2021
 - Graduate Medical Education Regulations, 2023
 - Maintenance of Standards of Medical Education Regulations, 2023
 - NMC (MSR) for Establishment of New Medical College/ increase of seats in MBBS course, Guidelines, 2023
 - Establishment of Medical institutions, Assessment & Rating Regulations, 2023".
 - Guidelines for Under Graduate Courses under Establishment of New Medical Institutions, Starting of New Medical Courses, Increase of Seats for Existing Courses & Assessment and Rating Regulations, 2023".

I congratulate Prof. Yogender Malik and his team to take up this Herculean task and bring forth a 'Users' guide' which will be very useful to the students, to the faculty, to the academia at large, to the friends involved in legal system and will also be a window to the world for understanding and following Indian Medical Education, particularly when WFME has accredited NMC for the coming ten years.

Place: New Delhi
Date: 22nd November, 2023



राष्ट्रीय आयुर्विज्ञान आयोग

भारत सरकार

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National Medical Commission
Government of India

From Editor's Desk

In releasing this Compendium, I am extremely grateful for the help, expertise and inspiration to our Hon'ble Chairman-Dr.B.N .Gangadhar, along with Dr.ArunaV.Vanikar-President, Under-Graduate Medical Education Board; Dr.Vijay Oza, President, Post-Graduate Medical Education Board; and Secretary, NMC.



The need for the compendium was felt not only by Members of NMC but also by officers working in NMC and Boards. Even stakeholders from public wanted authentic information online. So, this compendium as one of the most genuine, informative and up to date book for the Registered Medical Practitioners, medical institutions/ organizations, general public and other stakeholders.

I once again appreciate and thank the Govt. departments/ Ministries, and also to our Publication Division staff in helping us making this a reality.

I hope that the associated Boards and agencies will continue to extend their co-operation and shall also provide us their full co-operation, for the benefit of all in future too.

Yogender Malik
(Dr. Yogender Malik) 06.12.2023

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Volume 01:
Faculty
Development
Program

NMC Compendium 2020-2023 – Volume 1

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7.	Re-allocation of Medical Colleges including PG Institutes to Nodal/Regional Centers for the purpose of BCME & CISP and re-allocation of Regional Centers to Nodal Centers for ACME – Circular dated 06.04.2023	124-165	Circular



NATIONAL MEDICAL COMMISSION

COMPETENCY BASED UNDERGRADUATE CURRICULUM FOR
THE INDIAN MEDICAL GRADUATE



Curriculum Implementation Support Program

Module on Online Learning and Assessment

2020

**National Medical Commission
Pocket-14, Sector-8, Dwarka,
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Foreword

Online learning and Assessment

The COVID- 19 pandemic in many ways has challenged educators to innovate and ensure that the medical students are able to continue their learning during a situation that has placed an unprecedented strain on the medical education system. Creating a learning experience that allows learners to accomplish the required competency online, many of which are skill and attitude based, is a tough ask. Despite this, many institutions have risen to the challenge and displayed ingenuity in creating a learning environment that fulfils many of the demands of medical education.

Online learning, while not without its drawbacks, has some significant strengths that warrant its continuation in some form beyond these tough times. Flexible learning opportunities, greater learner involvement, impetus to self-directed and collaborative learning are some of the obvious strengths of online learning. Blended learning is going to be the future of medical education.

This module prepared by the Expert Group with inputs from outside experts is a primer of how to improvise at times of necessity and demand. It provides guidance to Curriculum Committee of medical colleges and to the teachers on how to use the online medium to help learners achieve many of the stated competencies including procedural skills and Attitude, Ethics and Communication skills which are traditionally considered not amenable to distance learning. Many of these modalities require very little monetary investment. Wherever possible - low cost alternatives to paid premium platforms - such as open access and free to use resources have been outlined.

Online medical education is nascent - and is fertile with innovations happening in all the medical institutions in the country. I request all the institutions in the country to share their best practices in a spirit of collaboration and ensure that our students get to learn in an environment - real or virtual - that best allows them to fulfil their aspirations. I am grateful to the Expert Group for preparing this learning module on Online learning and assessment which is of current relevance.


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राष्ट्रीय आयुर्विज्ञान आयोग National Medical Commission

Foreword Online learning and Assessment

The implementation of the new competency based Undergraduate curriculum across medical colleges in India required training of medical college teachers in the various changes built into this outcome-driven new curriculum, year-wise. To achieve this, the Expert Group, advising academic matters, developed a sequential step-wise Curriculum Implementation Support Program (CISP) which included a number of training modalities like Faculty Guides, Learning Resource materials and in-situ training of teaching faculty of colleges through a multi-tier Faculty Development Program. The successful implementation of CISP I in the first year of teaching of the new UG curriculum was a major achievement.

The COVID-19 outbreak in early 2020 posed a major setback to our efforts to train medical college faculty on the changes incorporated in the second year of the new UG curriculum wherein the major challenge of horizontal and vertical integration of curricula were built in, in addition to new teaching learning modalities like Learner-doctor method of clinical training (Clinical Clerkship). This challenge forced the Academic cell and the Expert Group advising the National Medical Commission to explore Online teaching-learning and assessment modalities. This module on Online learning and Assessment is the outcome of these efforts and provides valuable and much needed information to medical college faculty. I hope the information contained herein will be useful to students, teachers and institutions interested in virtual teaching.



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Module on Online Learning and Assessment

Glossary

AETCOM: Attitude, Ethics and Communication module introduced into its Faculty Development Program by the Medical Council of India in 2015 for undergraduate medical education.

Asynchronous learning: A learning event in which teachers and students participate at different times. Generally, there is no real-time interaction between the teacher and the students.

Blended learning: Learning which integrates online learning with conventional face-to-face (f2f) teaching. Also called '**hybrid learning**'.

Distance learning: A form of remote teaching-learning method where media replaces word of mouth as the sole means of academic communication. There is often a spatial distance between the teacher and the student.

E-learning: Teaching-learning which is delivered using electronic resources. The teacher and the student may be within the same classroom or at a remote location.

Flipped classroom: An approach where the conventional sequence of teaching-learning activities is reversed. Students read the material at home *before the class* and then use the classroom time to discuss, clarify concepts, create and apply knowledge.

Online Learning: Teaching-learning interactions which take place over the internet. This term is conventionally used for learning that happens across a distance. Learning can happen either partially or purely through the internet.

Pedagogy: Theory and practice of education.

Synchronous learning: A learning event in which teachers and learners engage at the same time. The place may be same or different. It is conventionally used in the context of online learning.

Disclaimer

Mention of/or example of a technology, platform or app for online teaching and assessment is not to be seen as an endorsement of the same.

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Introduction to online learning

The Covid-19 pandemic has dramatically changed the medical education environment and made the shift to online learning inevitable. Close human contact that was the essence of clinical teaching now looks so distant. The current coronavirus pandemic has forced us to explore non-conventional ways of teaching-learning and assessment. Medical schools will now need to be prepared to train the next generation of digital learners using virtual learning environments. This does not mean that traditional classroom teaching will become obsolete, but there is now an opportunity to use both methods efficiently in a hybrid manner, to make the process of learning efficient and effective.¹

Though online learning has been in vogue for many years now, its application in medical education, especially in India, is rather new. Some teachers have had the experience of online learning – some as facilitators, and others as ‘students’ – during earlier faculty development interventions²⁻³; but its use for undergraduate education is a relatively new phenomenon.

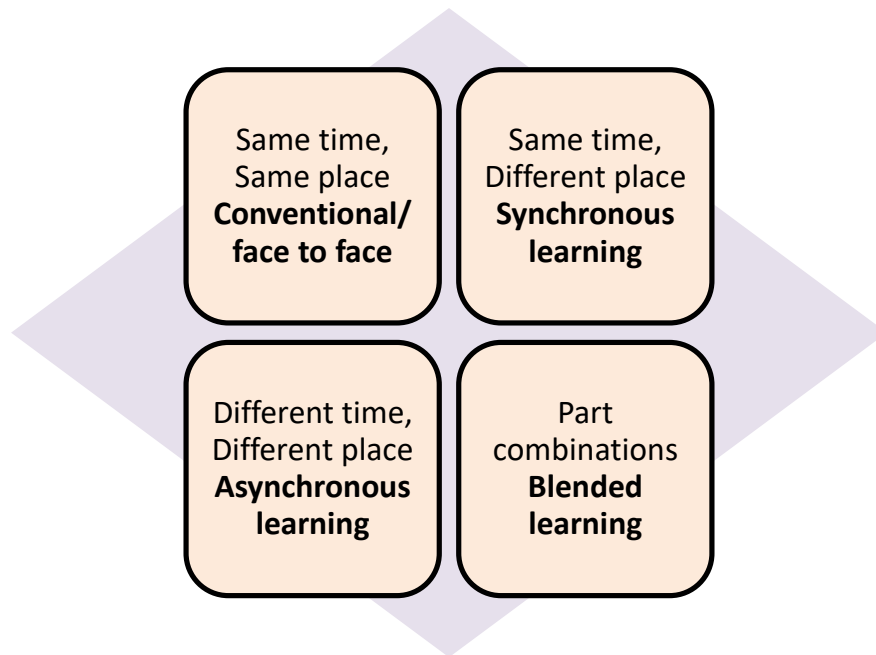
The ‘theory’ of online learning is more or less the same when compared to face-to-face (f2f) instruction, but there are subtle differences and similarities. The educational cycle, the learning processes, need for interactivity, integration, assessment and feedback are similar in both formats. The use of technology, the spatial distance between the teacher and students, and learner isolation stand out as prominent differences.

Different people have different ideas, interpretations and perspectives about online learning. Depending on the purpose, technology, context and institution, various terms such as e-learning, distance learning, web-based learning, web-facilitated learning, virtual learning, internet learning, distributed learning, computer-based learning, and technology-based learning have been used rather loosely and interchangeably to denote non face-to-face (f2f) learning.⁴⁻⁷

Means et al⁸ define online learning as “*learning that occurs entirely (purely online learning) or partially (blended learning) through the internet*” and this is the definition we are going to use in the context of this module.

The most accepted typology of online learning is given in Figure 1.

Fig.1: Typology of online learning (Modified from Coldeway, 1995)⁹



Blended learning is a teaching-learning format where the facilitator effectively integrates the online teaching component with face-to-face sessions. For the purpose of this module, blended learning has been taken as: *“Seamless integration of traditional face to face learning with online activities to enhance the learning experience”*.

Online learning: What works, what doesn't

Several factors influence the effectiveness of online learning. These factors include technical skills, academic skills, learner motivation, administrative issues, social interaction, time management, technical problems, cost, and accessibility to the internet.¹⁰ Poor design of courses and inadequate availability of multimedia materials could affect the quality of online training. Online learning has been reported to be as effective as didactic teaching. It can also be instrumental in promoting self-directed learning. Learners can have greater control over their learning as they can go over the content at their own pace. Teachers too can evaluate competencies through online assessments and provide learners feedback for self-improvement.

If faculty in higher education are not adequately trained in educational methods, the problem of ineffective teaching gets exaggerated during online sessions as it has special requirements.¹¹ Online teaching requires a learner-centered approach, where teachers

need to be competent in using principles of pedagogy, constructive and transformative learning, and assessment and feedback.¹²

Online learning formats

Online learning platforms now offer many opportunities that are being widely used around the world, such as online videos, tutorials, webcasts, video-conferences and virtual simulations. Online teaching-learning can be implemented through **synchronous** or **asynchronous modes**.

The range of available choices for real-time communication extends from online discussion spaces to online chat rooms to online meeting applications. Classroom lectures have now been replaced by live-streamed online lectures, where technology allows recording and online dissemination. Small group discussions and tutorials have been replaced with interactive webinars using online platforms. Almost all these learning resources can also be easily accessed using smartphones.

Information or learning resources can be posted on online platforms, such as websites and blogs. Videos can be shared to demonstrate essential clinical skills, procedural skills or communication skills. Lectures, problem-based learning, simulated lab work, sessions using virtual patients, and discussions can be conducted online, both in synchronous and asynchronous mode. All of these, if used effectively, can build in student engagement and interaction.

Online learning offers flexible learning experiences and allows learners the freedom to experiment with learning at their own pace. It is however not a replacement for f2f teaching.¹³ It is initially expensive to set up and requires familiarity with technology.¹⁴

What the future holds for online learning in India

Although the recent surge in use of online learning has been propelled by the Covid-19 pandemic, it is likely to be adopted as a regular part of teaching and learning in the future as well. Furthermore, newer modes of health care delivery are evolving with rapid advances in information technology. Online learning promises to play a major role in this backdrop.

The recently introduced, competency-based curriculum in India already advocates use of e-learning as a tool for encouraging self-directed learning among students. The CBME document of Medical Council of India (2018)¹⁵ recommends e-learning at the following junctures:

Table 1: Emphasis on online learning in the recently introduced competency-based curriculum

- As a lifelong learner, the Indian Medical Graduate is expected to “*demonstrate ability to search (including through electronic means), and critically evaluate the medical literature and apply the information in the care of the patient*”
- One of the objectives of Foundation Course is to “*to enable the learner to acquire enhanced skills in use of information technology*”
- The new curriculum has reserved time for self-directed learning during every phase of the MBBS course
- The document recommends mandatory provision of skills laboratory in every medical college
- It also recommends mandatory provision of virtual lecture theatres

In addition, medical students also need to develop certain skills, collectively called 21st century skills¹⁶ to fully benefit from online instruction. They need to have digital literacy skills. While students in general are comfortable working with computers and other digital platforms, a deliberate effort must be made to inculcate information technology related literacy, which includes, accessing information, evaluating it critically, and its application to address a given problem. Readers would recall that the Foundation Course introduced from 2019 admissions tried to address many of these issues.

The Pedagogy of Online Learning

Pedagogical approaches which are used for face to face (f2f) teaching might not work if replicated in online settings. It is time to re-conceptualize pedagogical approaches for online teaching.¹⁷

Table 2: Pedagogical approaches to be used in online learning

1. *Online learning must not be restricted to delivery of information:* Online methods should not merely be used as tools to distribute teachers' notes or PowerPoint slides.
2. *Online tools must be used to innovate and create knowledge:* Online teaching must address higher-order cognitive skills. It must promote creativity, innovation, critical thinking and problem-solving skills in undergraduate medical students.
3. *Online tools must be explored to teach all domains:* Ways and means to teach psychomotor skills, communication skills, ethics, and medical humanities via online mode must be explored.
4. *Online approaches used must encourage participation and collaboration:* Online learning must be conducted through 'involvement' and 'inclusiveness' of the learners. This will also reduce learner isolation.
5. *Feedback, support and mentoring of learners must be carried out:* Learners in online sessions need more interactivity, mentoring, support, feedback and evaluation than the traditional classrooms. Communication between facilitators and learners must be encouraged.
6. *Online teaching must be supplemented by online assessment:* Periodic formative and summative assessment must be built into online courses.
7. *Quality assurance of online teaching and learning must be monitored:* Quality assurance in online teaching must be adopted within the institutional policy document.

Building student engagement online

Here are some tips for building learner engagement in online sessions which work both in synchronous and asynchronous modes:

- a. **Allow students to do most of the work:** It is important to give students time to engage and interact with the content. Student should be taught to take up responsibility for their own learning. This must be supplemented by facilitating discussions amongst students, and by giving them collaborative projects.
- b. **Interactivity is the heart and soul of effective learning:** Students must be given opportunities to interact with the content, teacher, peers, environment and context; and
- c. **Strive for presence:** Teachers should strive to ensure the following three types of presence in their online sessions:

Table 3: Enhancing effectiveness of online teaching by ensuring cognitive, teaching and social presence	
Type of presence	Examples
<i>Cognitive presence</i> (Related to content)	• Select suitable content • Arrange from simple to complex • Introduce content in bite-sized modules • Introducing conceptual and theoretical knowledge into discussions
<i>Teaching presence</i> (Related to instructor)	• Facilitating discussions • Acknowledge and encourage students' contribution • Identify areas of agreement and disagreement • Respond to technical concerns • Set the appropriate climate for learning
<i>Social presence</i> (Related to interaction)	• Allow students to express emotions • Ask for evidence of reading, thinking and understanding others' responses • Build cohesiveness amongst learners by given group work and allowing student-student interactions (Adapted from Garrison et al¹⁸, and Pelz¹⁹)

Good Online Teaching Practices

The principles for good teaching offline²⁰⁻²¹ and online¹ have been enlisted in literature. These principles reflect the basic premise of alignment between objectives, teaching-learning and assessment methods, need to promote interactivity, use of assessment, feedback, collaborative work, self-directed learning and promotion of higher order thinking skills using online pedagogical approaches.

Table 4: Good Online Teaching Practices

Principle 1: *Teaching-learning methods must match curricular objectives and assessment*

Online pedagogy must be aligned with clear learning objectives, meaningfulness of content covered, the appropriateness of student activities, and the type of assessment.

Principle 2: *Synchronous and asynchronous teacher-student interaction must be encouraged*

Create supportive and non-threatening online environment. Open synchronous and asynchronous communication channels to encourage students to complete their work. This results in higher levels of achievement.

Principle 3: *Promote higher order thinking skills and communication skills*

Online pedagogy should include learning strategies that encourage demonstration of higher order thinking skills and communication skills.

Principle 4: *Teamwork and cooperation among students must be encouraged*

Online pedagogy must encourage collaboration and social interaction among students. This enhances their involvement in learning.

Principle 5: *Encourage active learning*

Teachers must incorporate authentic, problem-solving activities that augment student efforts to actively construct meaningful knowledge through interactivity and application in real-life situations.

Principle 6: *Encourage development of self-directed learning*

Online pedagogy should offer meaningful opportunities to students to bridge the knowledge gap by motivating and instilling responsibility in them. Resultantly, students will embark on significant self-directed learning.

Principle 7: *Opportunities for online summative and formative assessment must be provided*

Online courses should build in valid and reliable assessment periodically. This will provide learners timely feedback and ample opportunities to reflect on their progress.

Principle 8: *Mechanisms for providing prompt feedback must be built into the course*

Students need appropriate, timely and specific feedback on their performance. Online pedagogy must provide opportunities for students to reflect on what they have learned, what they still need to know, and how to assess themselves.

Principle 9: *Effective time management and timely task completion must be emphasized*

Learning to use one's time well is critical for students, more so in an online environment as there is no substitute for time on task. Due emphasis should be given to defining time expectations for students in order to establish the basis for high performance.

Principle 10: *All stakeholders must communicate high expectations from students*

In an online setting, it is pertinent to set clear expectations for quality student performance. Clear and high expectations provide students with precise guidelines about the type and quality of work essential for proficient and timely assignment completion.

Principle 11: *Respect diverse talents and ways of learning*

Students have a wide variety of learning styles and needs. Online pedagogy should carefully consider prior knowledge, cognitive processing, personality styles, beliefs about learning, and demographics.

Principle 12: *There must be a robust mechanism for monitoring development and mentoring*

Online pedagogy must support continuous monitoring and mentoring so as to facilitate achievement of intended outcomes of online learning.

(Modified from Saiyad et al¹ with permission)

Teacher roles, competencies and skills required for online teaching

Good online teaching practices will also require faculty to develop competencies in three major areas: technology, subject expertise, and pedagogy. Technical support to develop and manage online teaching modules, time, and support to online teaching are other minor issues.

Table 5 below lists some of the expectations from teachers by students when going through online courses:

Table 5: Students' expectations during online courses
• Easy to follow course design and navigation • Clear directions for activities and assessments • Reasonably quick grading and feedback • Regular communication from the instructors

Based on these needs, teachers need to perform the following roles and develop the required competencies to be effective at online teaching (Table 6):

Table 6: Teacher roles and competencies needed for online teaching
A: Roles: • instructional designer • content facilitator • technologist • process facilitator • advisor or counselor • assessor • manager or administrator • researcher <i>Goodyear et al²²</i>

B: Competencies

To perform the above roles, the following **competencies** will be required:

- Knowledge of the online process
- Technical skills
- Online communication skills
- Content expertise, and
- Personal attributes: inherent motivation, integrity, visible, responsive and approachable, organized, analytical, respectful, active, flexible, open, honest, compassionate and supportive, and ability to lead by example.

(Salmon²³; Keengwe et al²⁴).

Skills needed for online teaching

The teaching skills required in the context of online teaching include²⁵:

- a. **Communication skills:** The need for clear and concise instruction is important for online teaching. Teachers who are adept at face to face teaching may need to augment their communication skills to be good online teachers.
- b. **Technological skills:** Skills specific to the medium and content being taught, general computer literacy to be able to use word processors, spread sheets and presentations are pre-requisites for online teaching. For using simulations, additional skills may be required.
- c. **Pedagogical skills:** Online is only a medium for academic exchange - it requires a full complement of teaching skills, including generating learning objectives, matching content and mode to objectives, promoting interactivity, assessment and feedback, classroom management, and mentoring. A particular mention must be made of the skills of the teacher to engage the students who are physically separated from the teacher as well from peers and to encourage them to apply what they are being taught.
- d. **Design skills:** These include understanding and applying instructional design principles using learning materials in different formats. Teachers need to use student feedback to make changes in the format as well as ensure quality of learning.
- e. **Managerial skills:** Managing the classroom is as important in online teaching as it is in f2f situation. Ability to manage time, demonstrating leadership, managerial and mentoring skills, handling assignments and record keeping and following institutional, legal, ethical and professional requirements are some examples of these skills.¹³

Technology for online teaching

There have been rapid advances in technology used to deliver educational content, and now even social media platforms have started exploring educational needs. Moore's law,²⁶ which is often extrapolated to state that technology advances which almost doubles every eighteen months, suggests that training people in use of one technology will have limited effect. Further, with advances in technology, teaching methods are also expected to evolve (Table 7).

Table 7: Types of technology available in online courses

- **Websites and blogs** – access to stored information and repositories; electronic versions of scientific papers
- **Multimedia technology** – appropriate combination of video / still images and sound
- **Asynchronous modes** – like threaded discussions, assignments
- **Interactive resources** – providing real time interaction between teachers and students

Compatibility, accessibility, ease of use, user-friendly, opportunities for feedback are some of the criteria directing the choice and adoption of online platforms. While selecting a technological resource, the following points become important:

- Technology needs to be chosen depending on user needs, and not simply because it exists. Technology needs to be aligned to the learning objective.
- Technology has to be user-friendly to all stakeholders. This includes elements such as easy installation of software on computers, requirement of basic programming skills etc.
- Technology needs to be accessible and amenable to use in a variety of platforms, such as desktop computers, laptops, tablets and even smart phones.
- Technology needs to be compatible with the level of learners in terms of language and ease of learning to make it effective.
- Consideration of costs always determine feasibility of use of technology.

It is often useful to use a mix of appropriate technological resources which are available. This enables one to cater to online learners with a diverse variety of learning styles. This in turn helps students achieve desired learning outcomes.²⁷

Pre-requisites to begin online teaching

To initiate online teaching, preparations will be required at all levels of stakeholders (teacher, learner, institution etc.). An important point is to ensure that all students have equal access to technology. So availability of enough computers and access to a high-speed internet connection on campus for all faculty and learners is an essential investment. The checklist to identify the pre-requisites in terms of infrastructure and support system that is required is given below (Table 8):

Table 8: Checklist to identify pre-requisites for initiating online teaching	
1. 2. 3. 4. 5. 6.	Besides generalized IT support, does the institution have a separate cell to provide technical support to online learning activities?
	Has a Committee been formed to coordinate and monitor online teaching in the institute?
	What learning management system and software packages has the institute installed?
	Is high speed internet freely available on campus?
	Do all faculty and learners have access to laptops and/or smart phones?
	Do all faculty and learners have individual and unique log-in IDs and passwords to access the learning management system?
7	(Modified from Brenton ²⁸)

A Coordination Committee formed for each phase of MBBS teaching and headed by the MEU will be useful to monitor the quality of online teaching. Further, it may be useful to decide the workload and number of online sessions given to students each week, at the inter-departmental level. It is important not to subject them to cognitive overload as the attention span of students in online sessions can be pretty short.

Tools for online teaching

- **Online collaboration tools:** These enable the teacher and learner to upload and access lessons and assignments online. Texts, documents, images and videos can be shared, viewed and also edited in real time. Tools included in Google Apps and Google Classroom are a wonderful medium to brainstorm and simultaneously document the work of both the instructor and learner. Other tools available for online learning are Google Meet, Zoom, Cisco Webex, Free conference call, Microsoft teams, Go to meeting etc.

- **Presentation software:** Widely used tools such as Microsoft PowerPoint and Google Slides are an excellent means to augment lecture content by embedding high resolution images, diagrams, animation, audio and video files.
- **Course management platforms:** This is also known as Learning Management Systems (LMS). These platforms allow stakeholders to organize all resources needed for a class in terms of the syllabus, document sharing, audio and video files, assignment announcement and submission, discussion boards, online quizzes, grading tools, etc. Canvas is one such example. Some of the widely known online learning management tools are Swayam, Moodle, Google Classroom, Coursera, Clinical Key, Udemy, Teachable among many others.
- **Audience response systems:** These are easy and quick ways to connect with learners and gauge their learning in order to adjust the pace of teaching to learner requirement. This was usually done through clickers in a traditional classroom. A more popular option now is with use of software and applications which enable one to embed interactive polls between presentations, and gather responses through smart phones, which can be displayed in real-time to learners.
- **Lecture-capture tools:** Instructors are able to record their lectures on their local devices without additional requirements and upload them for learners. Such tools are useful for their ability to provide the learner with opportunities to review the content at their own time, pace and frequency. Studies have shown that such tools only augment the teaching-learning process rather than diminish student attendance.

Best practices in selecting appropriate technology

Radical changes in application of technology are already reshaping all areas of teaching and learning.²⁹ Traditional forms are being challenged and massive online open courses (MOOCs) are paving their way in. Nevertheless, a visible disconnect exists between technologies, research, design and practice.³⁰

Quite often, you will find instructors using fancy technology simply because it exists. There might be no need to use complex technology where a simple discussion or a simple reading might suffice. Technology is generally effective when the application directly supports the objectives and the purpose of the curriculum. Multimedia which simulates real-life situations will always be preferred, and it is best if they are tailored to the local context.

Here is a list of do's and don'ts that can help one use technology in an optimal manner (Table 9):

Table 9: Some do's and don'ts when using technology in online teaching	
Do's	Don'ts
Choose and integrate appropriate technology that supports overall educational goals and curricular objectives.	Avoid using technology for the sake of using it, if it doesn't support the lesson plan. It is a costly mistake which must be avoided.
Train and encourage teachers to make judicious use of technology in their classrooms.	The role of technology should be to empower teachers and learners rather than to replace them.
Technology should be adjustable in terms of students' skills and abilities, provide feedback on progress, and give them enough opportunities to collaborate in the teaching-learning process.	Instructors should not be over-dependent on technology. No technology is foolproof, and technology depends on multiple external factors.
Ensure that teachers and learners are actively involved with a range of relevant and practical engagement techniques. Such strategies should become standard practice.	Mere use of technology doesn't necessarily guarantee engagement. Student engagement strategies will need to be built in while designing a lesson plan.
An optimal level of fidelity (realism) is preferred when using simulations. The degree to which technology simulates the intended task or environment must preferably match with the learner's expertise and the educational objectives of the module.	Every technology requires a minimum level of infrastructure, in terms of hardware and software tools or internet accessibility. Students with limited access to these technologies must also be considered during planning. Fair and equal access to all students is a pre-requisite for use of technology.

Implementing Online Teaching

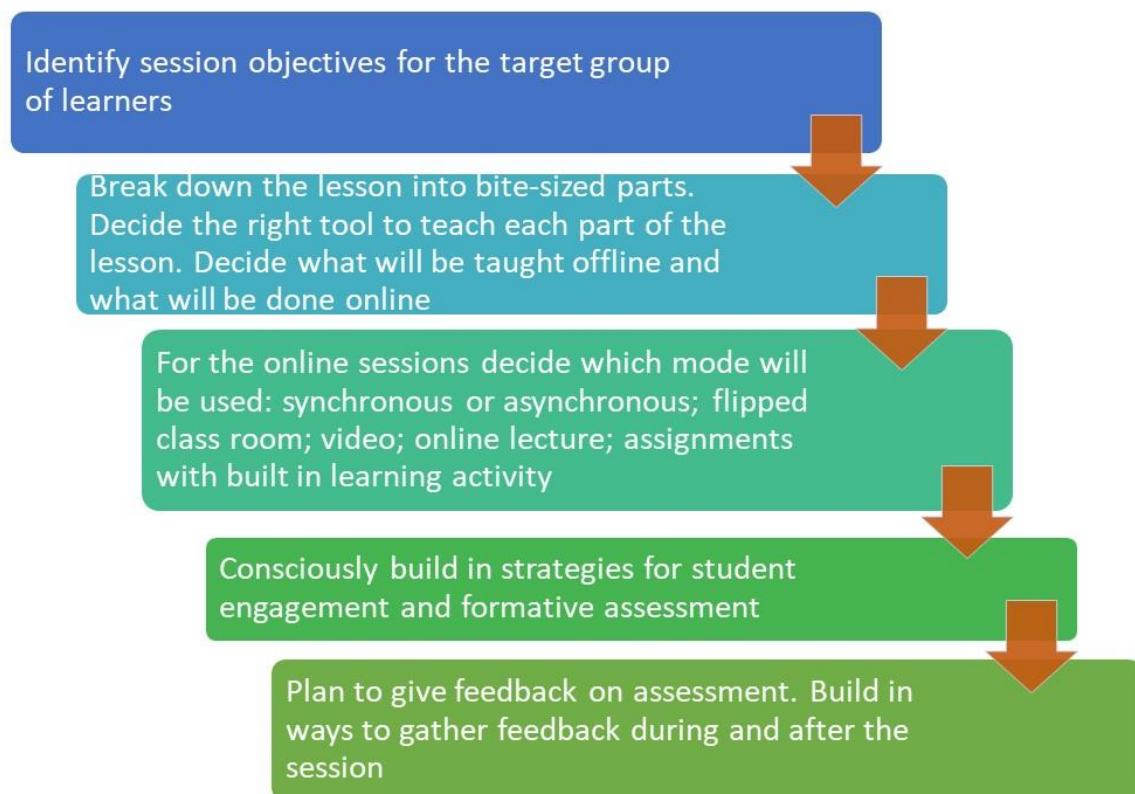
Once the basic infrastructural requirements are in place, online learning can be implemented at institutions for individual batches. Preparation for online teaching at the level of the individual class can be divided into the following phases:

- (a) Lesson planning
- (b) Conducting online sessions
 - Keeping students engaged
 - Facilitating online discussions
 - Managing Online classroom
- (c) Post-session assessment and evaluation

A. LESSON PLANNING FOR ONLINE TEACHING

A well-designed lesson plan is key to the conduct of an effective online teaching session. Similar to any other teaching plan, if one identifies and aligns the 'golden triangle' of learning objectives, teaching-learning methods and assessment, the subsequent conduct of online teaching session will be a smooth affair. The following flow chart (Fig. 2) will help in preparing a lesson plan before actual conduct of online teaching session.

Fig. 2: Lesson planning for online teaching session



It is important to break the lesson into small bite-sized parts. It is important to be prepared with Plan B in case of technology glitches. Never feel embarrassed to accept the failure of technology system and be ready to plan the session on another day or with some other mode. Not everything needs to be delivered in the synchronous online mode. It is important to explore ways other than online lectures. It is best to use a mix of suitable methods to deliver content and make the content more relevant and interesting.

Table 10 lists some of the asynchronous methods to teach students online.

Table 10: Examples of asynchronous online teaching methods
• Send reading material and ask them to take a self-assessment • Assign video to watch and ask to submit related assessment • Ask learners to teach the class or conduct quiz • Share resources and ask learners to submit a project • Send learners on an online scavenger hunt: Ask them to search for credible literature on a specific topic • Give paper case and have a discussion online • Have a debate • Start a wiki • Give an experiential activity and ask learners to write reflections

The **flipped classroom** concept uses valuable synchronous time to clarify concepts, clear doubts and discuss the more in-depth issues of the topic, after the learners have learnt the basics on their own.

CONDUCTING ONLINE SESSIONS

Keeping students engaged

Keeping learners engaged is the most challenging part of online teaching as there is no face to face contact.

Table 11 lists some of the tips and strategies to keep learners engaged during the actual session.

Table 11: Tips and strategies to keep learners engaged

- Try and learn learners' names and use them
- Build a rapport with learners: use formal and informal ways of interaction, model disclosure
- Create the right environment for the class; build trust
- Be available to answer questions and solve doubts
- Introduce interactivity through online tools which enable conduct of polls, and gather real-time response
- Embed multiple choice questions or quizzes between the session to gauge learning understanding
- Ask how and why questions to challenge learners like you would be in a traditional classroom
- Give opportunities for learners to ask questions and clarify their doubts
- Check if the pace of the lesson is fine with the class
- Use break-out rooms and give group work
- Encourage discussions online

Questioning is one of the simplest ways of engaging with students. The art of questioning has to be learnt for use both in online and offline modes. Broadly, these questions are not meant to be graded, but used only as a tool to generate attention, promote thinking, link knowledge and promote application. Some of the types of questions used for this purpose (Table 12) are as follows:³¹

Table 12: Type of questions that can be used for student engagement

Format of question	Example
Rhetorical question	Have you seen blood pressure being recorded? Let me show you.
Questions which generate interest	What would happen if you don't eat carbohydrates for 3 days?
Questions to ascertain baseline knowledge	Can someone tell the route of administration of BCG vaccine?
Questions to help the class recall already learnt facts	What is the daily protein requirement for a normal adult male?
Redirecting questions	We learnt of some drugs which can decrease blood sugar level. Can you tell me some drugs which will increase blood sugar?
Bridge questions' (i.e. questions which bridge the gap between knowledge and its application)	How can the clinical differences in diarrhea originating from small intestine and large intestine help you to decide on the need for antibiotics in a child with diarrhea?

Facilitating good online discussions

Online discussions have high pedagogical value as they promote interactivity, engage students and build in social presence. Gao et al³² have suggested that online discussions should aim at promoting higher order thinking. This can be done by questioning, elaborating, interpreting and relating information to prior knowledge. Discussions should help students to construct their own knowledge. Presenting and discussing conflicting perspectives (e.g. role of statins in cutting down risk of myocardial infarction, differing views on ethics) helps in generation of knowledge which is long lasting.

At first, it may appear difficult but most of the nuances of good face-to-face discussions can be applied online as well. Some of the techniques of good facilitation are as follows:³³

- a. Involving all students in discussions is important. If the groups are very large, it makes sense to divide them into manageable sub-groups with facilitators in each group. In case enough faculty are not available, residents can be trained in facilitation skills.
- b. Teachers should make an effort to identify non-responders and encourage them to contribute. Similarly, one should not allow a few students to dominate the discussion.
- c. All contributions must be acknowledged. This opportunity should be utilized to provide feedback to students.
- d. A good facilitator knows when to speak and when to go silent. While the facilitator may have to take the lead in the beginning, a good discussion means that students interact with each other with the facilitator taking a back seat.
- e. Students tend to be callous and abrasive with each other in online settings. This might lead to friction and others might not participate enthusiastically. Therefore, it is important to set ground rules in the beginning and intervene when any untoward incident occurs
- f. Allow students to lead the discussion after they get used to the format. This helps them to develop ownership of the process and brings out new ideas, new way of looking at existing situations, and a much-needed change from monotony.

Online classroom management

One of the key differences between conventional and online classes is classroom management. In a conventional classroom, the teacher can 'see' all students, notice their body language, ask/answer questions from specific students and move around in the class. In online classes, however, this functionality is limited. Several software packages allow conversion of a large class into smaller groups (breakaway groups). But the best

method is to manage the group as a whole. Just like conventional classes, it may be good idea to keep the class size small. Students generally remain ‘anonymous’, especially when the online class size is large. This usually helps otherwise shy students to ask doubts using the chat box function.

Another important difference lies in the learning environment. While mobile devices are generally discouraged in conventional classes, they play an important role in online classes. As both teachers and students are getting used to the new behavioural norms, it may take some time to adjust when f2f classes start again.

A concern voiced by many teachers is the ‘disappearance’ of students after logging in. While asking all students to keep “*camera on-mike muted*” might be one option, online assessment provides an important tool to ensure presence. The online teacher lacks the opportunity to see the expressions of her students to gauge their understanding. This is where role of ongoing assessment comes in. This will be discussed more under the assessment section.

Table 13 lists some online classroom management techniques:

Table 13: Online classroom management techniques
1. Lay down ground rules for the classroom 2. Encourage students to develop their own ground rules 3. Emphasize interaction. Try to identify non-responders 4. Use breakaway groups to encourage interaction 5. Be a roving facilitator when using breakaway groups 6. Avoid information overload 7. Pose probing and application-oriented questions 8. Provide immediate feedback 9. Use techniques like flipped classroom to promote active learning 10. Don't read from your slides 11. Link attendance to participation in class 12. Use more than one technology to promote interaction.

B. POST-SESSION ASSESSMENT AND EVALUATION

Wherever possible, plan to conduct online summative assessment after an online teaching session. It does not stand to reason that the learners trained through one type of learning environment are assessed through a different one. Where online assessment is not possible, traditional methods of assessment can be used.

Some simple informal classroom assessment techniques such as polls, muddiest point or one-minute paper can help in knowing whether the concepts just taught have been understood by students or not. For formal assessment, MCQ tests can be carried out using Google Forms or other interactive tools.

Evaluation must be carried out as part of quality assurance practices. Evaluation of both the learning process and outcomes must form a part of any online teaching program. Student feedback can help in improving the manner of delivery of this content. More on this topic can be read in the section on Quality Assurance of online learning.

Teaching Procedural Skills Online

Teaching procedural skills online is a formidable challenge to medical educators. E-learning has been shown to be effective in supporting skills teaching. Fitts and Posner's³⁴ three-stage theory of motor skill acquisition is a popular method used in teaching surgical and motor skills. These three stages of acquisition of a skill are:

- (a) **Cognition** or understanding the task: This needs explanations about the activity.
- (b) **Integration** or comprehension and performing the mechanics of the task: This needs provision of feedback and deliberate practice.
- (c) **Automation** or ability to perform a task with efficiency, speed and precision: This needs little cognitive input but automated performance. The focus is on refining performance.³⁵

While the stage of cognition can be fostered by online interactive sessions, the stages of integration and automation require specific planning. Complex procedural skills can be taught by breaking them down into small steps. Peyton³⁶ suggested a four-step approach to introduce skills to new trainees as follows:

Step 1: Demonstrate: The instructor shows the skill at a normal pace. No additional comments are offered at this step.

Step 2: Talk the trainee through: The instructor describes each sub-step of the procedure while showing the skill again to the students.

Step 3: Trainee talks trainer through: Here the trainee describes the steps while the instructor performs the skill for the third time, based on the trainee's description.

Step 4: Trainee does: The trainee performs the skill on his or her own.

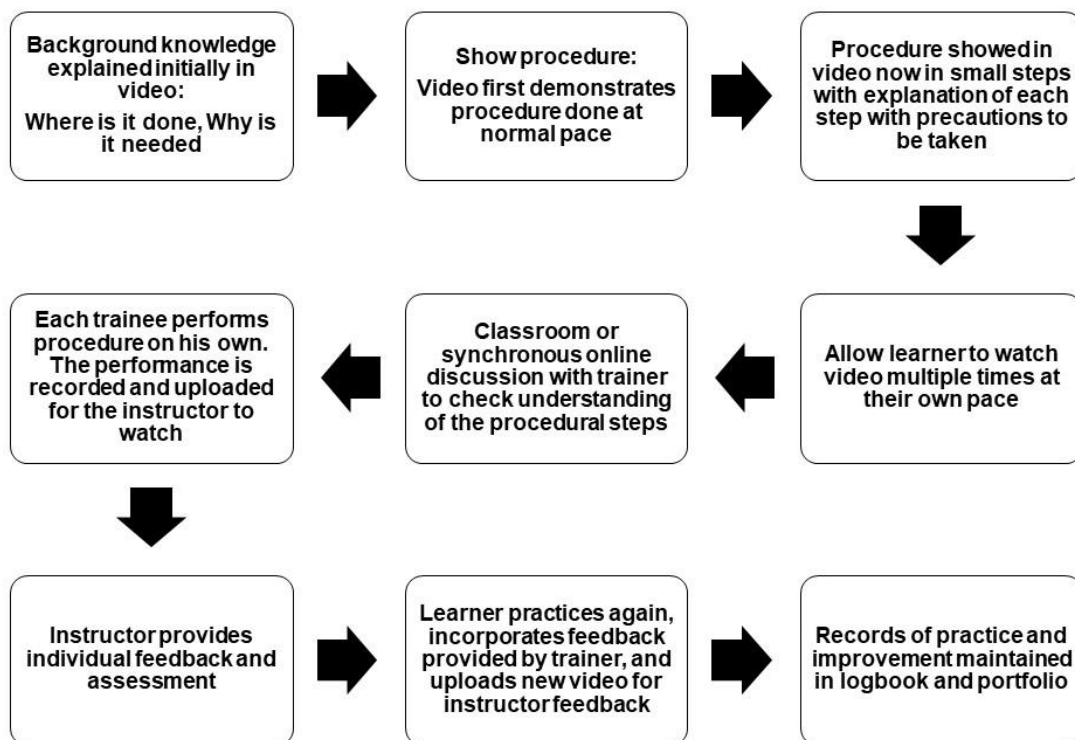
These steps break the task into four components: demonstration, deconstruction, formulation and performance.

Online instructional videos provide learners an opportunity to watch the demonstration and to deconstruct different steps of the skill at the trainee's pace. These videos have the flexibility of being paused and being watched repeatedly at multiple occasions. This is said to help learners understand complex procedures better. This process helps in acquisition and retention of the procedural knowledge.³⁷ Further, if used in a blended manner, this can be combined with actual performance. The performance phase can be recorded and can be used to provide formative feedback. These videos can be used for

supervision, post-procedure debriefing, providing feedback, assessment and promoting reflection.³⁷

Alternatively, these videos can be watched in small groups / online break rooms with discussion.

Fig.3: Suggested training model of how online videos can be used to teach skills



For example, a simple procedural skill such as tying a knot, or suturing needs task-training models. An instructional video can take the trainee through the steps of demonstration and deconstruction. The comprehension step (“trainee talks the trainer through”) can be done by using synchronous interactive online sessions with the trainer. The next step of performance (“trainee does”) can be recorded. Simple recording devices such as a laptop, smart phone or headgear camera can be used for supervision and recording. The recorded video can be uploaded to obtain feedback and for assessment. The learner can repeat the performance based on the received feedback, and again upload a new video

until he attains the pre-defined level of competence. Feedback provided on these videos have been shown to improve simulation scores, technical skills and even patient safety.³⁸

Availability of task training models or kits for all the procedural skills could be a challenge. The learning resource material needs to be developed or acquired depending on the availability, resources and requirements. If common training kits can be made available for all the learners by the institution, it ensures uniformity. For more complex procedural skills, availability of mannequins and online screen-based virtual-reality simulators will be valuable for training, feedback and assessment.

It is possible to prepare peer-reviewed educational videos to teach skills and procedures.³⁹ People learn effectively from multimedia.⁴⁰ Learners have been found to use online videos prepared for conducting OSCEs for self-study of clinical skills.⁴¹

Teaching health humanities online

Competencies that focus on imbibing appropriate values, ethical conduct, professionalism, interpersonal and communication skills are an important component of the MBBS program. These skills were previously deemed to be obtained passively by observing and associating with senior colleagues in the profession. However now, with the introduction of modules like AETCOM⁴², the acquisition of these competencies has been mainstreamed. Many of these outcomes lend themselves to online acquisition with correct lesson planning and appropriate use of technology.

It must be remembered that learning needs should drive the use of any technology and not vice versa. Many of the learning outcomes can be attained by fairly low investment in technology and use of free and open-access resources. We have chosen examples from the AETCOM module⁴² to demonstrate how the online learning environment may be used and adapted to help learners acquire requisite competencies.

Example 1. This example uses a first-year communication module that encompasses large group and small group learning, observation skills, collaborative and self-directed learning and formative assessment. This example uses Module 1.4 of the AETCOM booklet⁴².

S. No.	Component	Online adaptation	Resources
1.1	Introductory session	Online lecture to large group OR Uploaded recorded lecture with online discussion (flipped classroom format)	Online video platform (subscription or open source) Above + Online repository such as YouTube
1.2	Self-directed learning	Provide assignments that require students to: - research and compile information individually and in groups - prepare and upload reports These reports are then reviewed by faculty and shared with students	Group email OR Online word processing platforms that allow documents to be shared or edited together ± Online video platform that allows group calls
1.3	Small group sessions on improving communication skills	A communication video with common mistakes in communication is prepared with standardized patients This is viewed together by learners A discussion (live or chat box), that elicits student observations of these mistakes and how to correct them, follows	Online video platform (subscription or open source)
1.4	Closure session	A discussion in small groups that summarizes learning and future learning to be done	Online video platform
1.5	Assessment	Students are graded for - Participation in activity and - assessment of self-directed learning	Spreadsheet or an electronic form with components

Example 2. The second example adds the complexity of a skill session. This example uses Module 3.1 of the AETCOM booklet⁴².

S.No.	Component	Online adaptation	Resources
2.1	Introductory session	Same as in example 1.1	Same as in example 1
2.2	Small group sessions	Same as in example 1.3	
2.3	Skills lab sessions	A standardized patient is available online for real-time communication. A communication task is provided to the student which is done online. (Ideally the session is recorded and uploaded to the server for retrieval by the student designated peer and preceptor) The standardized patient assesses learners using a check list and comment form and submits it online. He can also be available for the debrief. After the task is completed, the student retrieves the recording of the encounter and records observation, comments and points for improvement The preceptor can view the interaction live OR can retrieve the recorded encounter and review. A debrief opportunity is created between the student and the preceptor where the performance is reviewed and a plan for improvement is made through guided reflection.	Online video platform (subscription or open source) with recording facility (ideal) and ability to retrieve and view (ideal) Online form to collect patient-preceptor and learner impressions of encounter

Example 3: This example describes a way to emulate a team tag-along session. This example uses Module 2.4 of the AETCOM booklet⁴².

S.No.	Component	Online adaptation	Resources
3.1	Tag-along session	An identified member of the health care team joins on a video call with the group of students and facilitator. After an initial goal-setting discussion, the member of the health care team does a walkthrough of his or her area talking and taking questions from the students. A front facing camera fixed to the upper garment and earphones are simple and cost-effective workarounds (as opposed to having another person accompanying the team member with a camera). It is important to brief patients and colleagues involved in this session and get necessary permissions for use of videos and images.	Online video platform (subscription or open source) Smart phone to transmit the walk - through to the online platform
3.2	Small group discussion	Can be done immediately following the walk through or later to elicit observations, reflections, summaries and learning	Online video platform (subscription or open source)

Example 4: This example provides a way to emulate a session on empathy. This example uses Module 2.8 of the AETCOM booklet⁴².

S.No.	Component	Online Adaptation	Resources
4.1	Patient interviews	With suitable and appropriate permissions students may be allowed to interview family members of patients through an online platform. (If needed, faculty observer can be present to ensure comfort and safety). Logins from different locations of family members allows exploration of feelings of relatives - not proximate to the patient.	Online video platform (subscription or open source)
4.2	Large group discussion	After suitable permissions have been taken, family members are asked to join, speak and answer questions from participants in a large group discussion on a moderated online platform.	Online video platform (subscription or open source)
4.3	Self-directed learning	Lists of online resources such as videos or movies are provided. Students can view them offline - write a report and submit them.	Ability to submit through email or an online submission process
4.4	Closure	Same as in 1.4	
4.5	Formative assessment	Submission of items in 4.3	

Example 5: This example provides an example for emulating an online-case based discussion on medical ethics. This example uses Module 3.2 of the AETCOM booklet⁴².

S.No.	Component	Online Adaptation	Resources
5.1	Introduction of the case	A paper case may be posted ahead of time and introduced through a small group online session. Innovation could include a video recording of a patient interview followed by discussion.	Online video platform (subscription or open source)
5.2	Self-directed learning	Same as in 1.2 based on the case provided	
5.3	Anchoring lecture	Same as in 1.1	
5.4	Discussion and closure of case	Same as in 1.4 Additionally, an online role play can be done with two students. Remaining students can identify issues and critique them.	Online video platform (subscription or open source)

From these examples, it may be evident that a good approximation of learning which occurs in a physical environment, can be emulated in an online environment. This requires adequate planning and use of resources even if limited creatively. It must be emphasized that, remote learning is not a substitute to proximal guided learning that a master teacher provides. The use of webcams and phone cams reduce the amount of detail that can be captured in an online system and do not completely replace the aesthetics and immersive experience of a skills lab or patient care setting. However, planning, practice and wise use of technology allows skill acquisition to proceed in an uninterrupted fashion.

Online assessment

Online assessment involves the use of electronic or digital devices to construct or deliver assessment tasks. This may also be used to monitor progress of learners, to mark or grade assessments, and for record keeping of these data. The digital devices can range from simple devices such as smart phones or tablets, to laptops and desktop computers, and can go up to complex simulators and gaming devices.

Role of assessment in online teaching

Assessment can be used in different ways in online teaching. Some of them are as follows:

1. **Assessment before teaching:** Using short quizzes or tests before starting a topic can be useful for teachers to gauge the baseline knowledge and skills of the students. This can be used to subsequently tailor the teaching according to the level of the learners. This can even be done informally by asking questions before the session starts using the poll option or chat box. Teachers need to know the level of the group as a whole and not individual performance in this situation.
2. **Assessment during teaching:** This can be done at the level of a course or at the level of a teaching session.
 - a. Tests conducted midway between a course help students to self-assess their learning and keep up with the deadlines. They help teachers to make mid-course corrections and give feedback to learners.
 - b. It is always a good idea to break up long teaching sessions into smaller sections. This helps students to concentrate. Several simple classroom assessment techniques⁴² exist and these are useful as these are quick, anonymous, and non-graded. Techniques such as polls, muddiest point or one-minute paper can help in assessing knowledge, recall, and understanding. Several of these techniques can be adapted to online settings with use of interactive applications. Here key messages from the topic just taught can be asked in an applied form. This helps teachers in knowing whether the concepts just taught have been assimilated by students or not. Again, here group performance will be important rather than individual performance. If most of the students have got the answers wrong, the concept will have to be revisited and explained. Concept maps and one sentence papers can be used to test ability to synthesize knowledge.

Breaks such as these, also give students a chance to ask for clarifications, which they otherwise hesitate to ask.

3. **Assessment after teaching:** This can be done at the level of a unit or at the level of a course:
 - a. After completion of a unit (or some units), formative assessment can be done. Here the purpose will be to assess the performance of the learners, as well as to give feedback about what they have done well and what can be improved.
 - b. After the completion of a course, summative assessment is performed to make pass/fail decisions for certification.
4. **Assessment as learning:** It is customary to classify assessment as formative (assessment *for* learning) and summative (assessment *of* learning). The contemporary trend is to use assessment to facilitate learning. This involves giving students an assessment task which will require them to go through an authentic experience or perform an activity, and thereafter submit a report. For example, students could be asked to go into the community or a hospital ward, interact with certain subjects, read about the topic, and compile their findings and submit their learning in the form of a report. This kind of assessment erases the artificial divide between learning and assessment. This also promotes self-directed learning.

Formats for e-assessment

When online assessments first started, they merely involved transfer of paper-based questions to an online format. However, much of that has now changed. With e-assessment, a whole range of different question formats are possible.

These include multiple choice questions and their variations such as extended matching or assertion-reason type questions. But besides these, there is the possibility of using audiovisual triggers such as clinical photographs, X-rays, gross or microscopic images, graphs, or auscultation sounds. Simulations can be used to develop electronic patient management problems and virtual patient scenarios.

Live interactivity is possible in online assessment which makes it possible to perform virtual OSCE, where students can be assessed using standardized patients or videos. This is useful for assessment of communication skills and history taking skills.

Electronic portfolios can be used to gather evidence of learning. Activity based assessment such as project-based assessment or reflective writing are useful methods

which can assess behavioural competencies which are usually considered 'immeasurable'.

The different question formats that can be used in online assessment are summarized in Table 14.⁴⁴⁻⁴⁵

Table 14: Different question formats that can be used in online assessment

- | |
|--|
| <ul style="list-style-type: none">• Multiple choice questions and its variants• Short answer questions• Online polls• Picture based questions based on audiovisual clues• Electronic Patient Management Problems• Objective structured video examination (OSVE)• Projects• Reflections• Portfolios |
|--|

Advantages of automation

Use of well-designed online assessment formats brings in efficiency and ease in marking assignments. Several assessment formats can be automated during their construction phase, reducing subsequent faculty workload. Use of well-constructed rubrics and standard marking formats can make most assessment formats more reliable and fair to learners, by reducing inter-rater variability. It is possible to verify whether students are adhering to deadlines and submitting assessments on time. Monitoring learner progress is simplified as record keeping is much more meticulous and at one's fingertips.

Rethinking the concept of what to ask

Since online assessment first began by replicating paper-based assessment to computer-based settings, most people presume that it can be used only to test objective assessment questions. However, this is not true. The way students learn, depends heavily on what kind of mental processes are activated by the questions asked during assessment. If questions merely test rote learning, students will veer towards surface learning. When questions asked are more complex, students will start learning deeply and try to connect the dots between different mechanisms. The kind of trigger that we use to ask questions influences the learner's way of studying differently. This can be done by the following ways (Table 15):

Table 15: How to ask questions differently

What to ask	How to do this and what this does	Example
Ask higher order questions	Rather than asking questions from the lower levels of Bloom's Taxonomy which encourage rote learning, ask questions from the higher levels such as comprehension, application, analysis, synthesis and evaluation. These could be in the form of problem-solving exercises, projects, surveys, or case studies.	Instead of asking: <i>Enumerate the morphological changes seen in the heart in rheumatic heart disease.</i> convert it into a higher-order question by simply using a clinical scenario. <i>If a child with rheumatic fever is not treated, what are the changes that can be expected to be seen in the heart 15 years later?</i>
Ask integrated questions	Ask questions based on pathophysiology and mechanisms in clinical subjects. Similarly, when teaching basic subjects, the applied relevance must be emphasized. This will help students to form neural connections in their mind and study a subject deeply by understanding the basics rather than merely memorizing it by rote.	Instead of asking: <i>'What is the action of cyclooxygenase on inflammation?'</i> the student can be given a scenario like, <i>'After watching too many webinars, a student has a headache and takes an aspirin to relieve the pain. Which steps of inflammation will be affected by the medication?'</i>

Build authenticity into questions	When students will finally encounter patients, they are likely to face complex situations. So instead of restricting questions to one chapter or topic, it may be useful to expose them to scenarios where they need to explore their learning beyond unit-wise or department-wise boundaries. Authentic scenarios will help in preparing students for real life patients.	If a question about a treatment of a condition is asked, it may be possible to include details about a co-morbid condition, which could lead to side effects or contradiction to use of a routine drug. If a patient is poor, and a drug cannot be afforded, then that kind of situation can be built into the question. If a patient might not be expected to comply with a regimen, then what choices would a physician have to alter his management?
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Assessment in clinical settings

When it comes to assessing clinical competencies, cognitive parts of competencies such as clinical reasoning and communication skills can be assessed online. It is also possible to test heart sounds or visual signs through online platforms. Simple electronic patient management problems or complex AI technology-based virtual patients (computer-based simulations) can be used to test clinical reasoning skills.⁴⁶⁻⁴⁸

There have been reports where Objective Structured Video Examinations (OSVE) have been used with some evidence of being valid.⁴⁹ In an OSVE, different clinical scenarios were chosen depending upon the clinical and communication skill competencies to be tested. Short patient-clinician interactions, less than 10 minutes long, were scripted and filmed. Each scenario included some deliberate communication skills elements such as greeting the patient, checking for the identity, use of open and closed questions, eye contact, displaying empathy, clearing doubts, summarizing and closing. Some obvious errors in communication were included in the script. Students were expected to watch the video. Thereafter, they were given answer sheets where they had to identify what was done right and what was done badly in the patient-doctor interaction.

However, Holmboe⁵⁰ stated that “although simulated patients and other simulation technologies were important and reliable tools for teaching clinical skills and evaluating competence, they cannot substitute direct observation of students’ clinical skills on real patients by the faculty”.

Now, with the availability of software which permits real time interactivity such as Google Meet, Zoom or Skype, students can be observed and assessed on history taking or communication skills using real or standardized patients. These sessions can be recorded easily and assessed. Assessment of communication skills, professionalism and attitudes can be done through use of simulations, standardized patients and online viva. This has been discussed earlier. Use of hypothetical scenarios can help in assessing a student's competence in managing complex clinical situations.

With the availability of break-out rooms, several institutes are experimenting with conduct of online or electronic OSCEs. This, however, requires a great deal of coordination and planning so that students move in and out of online OSCE sessions seamlessly. Each room needs presence of cameras and recording equipment. Faculty and standardized patients are needed depending on the stations. Proctoring devices and encryption of data may be essential. This is an expensive affair, and needs involvement of a whole team of faculty, assistants and IT specialists to run smoothly.

Choosing the right assessment tools

The assessment clock model⁵¹ provides educators practical guidance about how to determine the key characteristics of assessment and decide the most suitable assessment tool in a normal or crisis situation. This model is based on van der Vleuten's⁵² empirical formula:

$$\text{Utility of assessment} = \text{Validity} \times \text{Reliability} \times \text{Cost-effectiveness} \times \text{Acceptability} \times \text{Educational Impact}$$

The model can be interpreted to suggest that in normal circumstances, when one is developing a low-stakes examination, more weightage should be given to features like the cost, acceptability and educational impact. For high stakes examinations, validity and reliability are more important characteristics. However, in crisis situations like the Covid-19 pandemic, weightage would be on acceptability and cost issues, especially as we are transitioning to a new method of assessment, and there are issues of fairness and security.⁵³ Validity and reliability will remain the most important issues for high-stakes examinations like selection examinations and high-quality items must be chosen carefully for inclusion into question banks.

Feedback in online settings

Feedback is a two-way process. Students need to get feedback on how they are performing, while teachers need feedback from students on how their teaching is being received.

When learners are provided with formative feedback, assessment becomes a learning opportunity. Online assessment enables provision of individualized feedback which plays a very important role in enhancing student learning. This can be done using several formats. In case of assessment-related feedback, examples and model answers provide excellent opportunity for the student to compare his performance. This can help one to reflect on the assessment process also.⁵⁴ Feedback can be built into assessment, using automation in certain cases. For example, in case of self-assessment modules to be administered at the end of every unit, specific feedback can be built into each option chosen by the learner. Automation easily enables this to be shown to the learner as soon as they have submitted their responses. Another way of providing feedback is to design automated feedback statements based on scores obtained by the learner. This might not be very specific but can provide some guidance to the learner. For faculty, common feedback responses can be designed in the form of macros which need to be inserted by ticking a box, enabling faster marking and provision of specific individualized feedback.

Feedback related to psychomotor skills can be given after viewing recorded videos as explained earlier. The logbook can also be maintained electronically with options for locking after each loop. This can also serve as a permanent record of the progress made by the learner.

If time permits some personal time devoted to each student can be very productive. However, personalized feedback requires lot of time and effort from teachers. To be available to students for voice interactions outside the scheduled sessions can be very helpful, but taxing for the teachers. It may be a good idea to provide fixed time slots for personalized interactions through virtual or telephonic modes.

Group feedback is another technique, where all assignments and feedback are available for all members to view and correct themselves. This also makes the whole process transparent.

One advantage of using online tools is that feedback can be given in the form of small doses which are spaced out throughout the course. Small doses of frequent formative feedback will be more easily accepted and assimilated by learners. Faculty will need to be trained in providing constructive feedback. Use of rubrics and macros can enable specific feedback to be delivered efficiently and at fixed periods, depending on the pace at which learners are progressing.

The issue of plagiarism

A common complaint among teachers is that students tend to copy and paste from online sources. Plagiarism is a universal phenomenon among learners. It will be important to spread awareness about what constitutes plagiarism and why it should not be practiced

among both students and faculty. Use of anti-plagiarism software should become a routine practice. A strict non-tolerance policy against plagiarism needs to be enforced and a culture of academic integrity needs to be slowly encouraged on all campuses.

The cost of online assessment

While there are several free or low-cost software and applications which permit one to conduct low-stakes examinations and classroom assessment easily, using online tools for high-stakes examinations comes at a high cost. However, as the number of users increase, the cost of these software applications is likely to come down.

Proctoring devices are required to eliminate the possibility of student cheating and manipulation. These need to be installed at the level of the Universities and institutions, to prevent copying. Electronic software is available which block the use of other screens when the examination is on. There are ways to monitor eye movement and time away from the camera. These tools can enable examinations to be carried out under surveillance of web cameras. This will incur massive costs and will require storage of huge amounts of electronic data.

It must be remembered that online assessment is not the ultimate solution to all our woes. It must be used in conjunction with face-to-face assessment. However, it does help in reducing faculty workload through automation. To be fully acceptable, we will have to seek tools which make assessment valid, reliable, cost-effective and acceptable.⁵⁵ Overall, one cannot ignore the educational impact of using assessment on student learning. Online assessment is now an integral part of the assessment toolbox. It is not a substitute, but a complement to regular face to face assessment.

Quality assurance in online learning

As the use on online modes of teaching and learning increases, it becomes important to monitor the quality of educational processes and determine if the intended educational outcomes have been attained.

Several processes need to be evaluated for quality assurance in online learning.⁵⁶⁻⁵⁷ These are listed below:

- (a) Leadership and management: Policy, vision, mission, goals, planning
- (b) Faculty profile and faculty development
- (c) Availability of technology, infrastructure and learning resources
- (d) Curriculum design
 - i. Competencies, learning outcomes and learning objectives
 - ii. Instructional methods
 - iii. Course activities and learner engagement
 - iv. Assessment
 - v. Continuous quality improvement and evaluation
- (e) Learner support and feedback: learner profile
- (f) Learner accessibility and experience

Just as in the traditional classroom, some **benchmarks** are essential to the conduct of online teaching. These include⁵⁸:

- clear planning,
- good infrastructure,
- faculty support to conduct online learning,
- clear standards for good course design,
- clear instructions for students,
- open communication channels between faculty and students,
- regular feedback to students on their progress,
- regular feedback from students on their experience, and
- continuous monitoring and evaluation.

How to conduct blended learning sessions

It is predicted that online learning will continue to be a part of our regular teaching armamentarium even when the pandemic ends, albeit in a blended learning format. **Blended learning is the “thoughtful integration of classroom face-to-face learning experiences with online learning experiences”.**⁵⁹ Given the experience of online learning that has been gained during the pandemic, it may be useful to continue using it in the post-pandemic phase, in a blended learning format, subject to further deliberations and consensus.

Blending the advantages of face-to-face interactions with online sessions enhances the learning process. Blended learning can:⁶⁰

- Expand the opportunities available for learning,
- Provide information and resources for learners,
- Streamline course management activities,
- Facilitate student engagement through interactivity and group work.

Hallmarks of blended learning:

There are four hallmarks of blended learning (Fig.4). These are:

1. Seamless integration of online and face-to-face session:

The facilitator integrates the face-to-face session with online activities by summarizing the online activity and linking it with the face-to-face session.

2. Increased learner control over time and pace of learning:

Learners should be able to access the online contents at the time and place of their convenience. There should be flexibility in learning.

3. Online presence of facilitators:

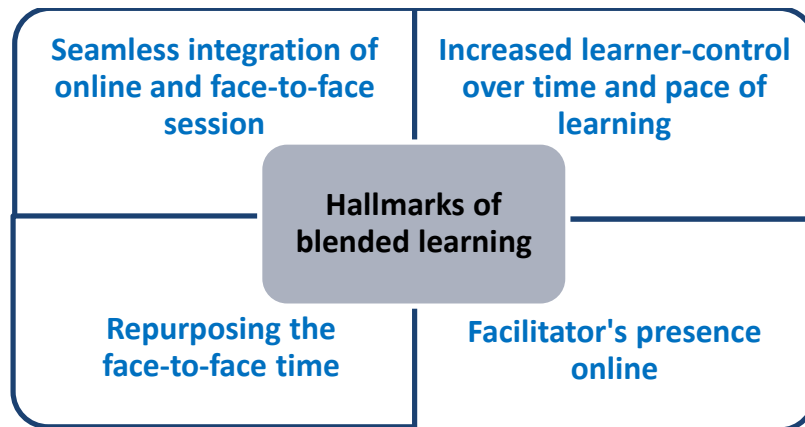
Facilitators should be visible through the online activities. This is possible by providing timely feedback and participation in discussions.

4. Repurposing the face-to-face time:

Traditional class time is replaced with time taken by students to carry out their online learning activities. It is ideal to use the face-to-face learning time to impart higher-order learning and skills, while using the online sessions to recall or deliver basic knowledge and carry out collaborative activities. Blended learning provides

possibilities to repurpose the contact time to facilitate deeper thinking and in-depth learning.

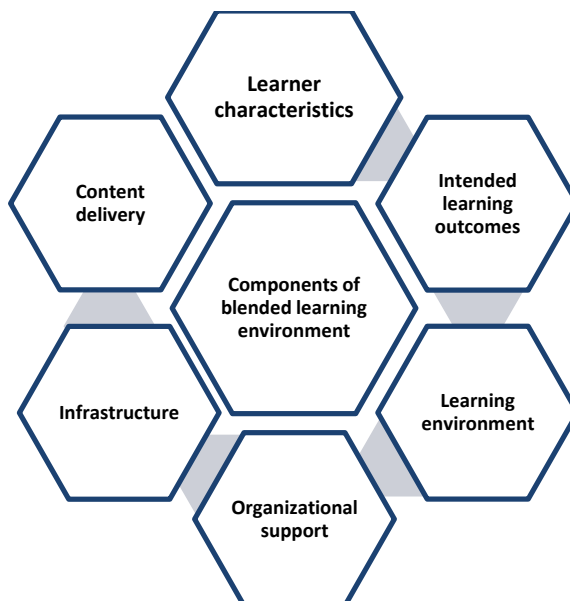
Fig. 4: Hallmarks of blended learning



Components of blended learning

Fig. 5 shows the main components which make up the blended learning environment.

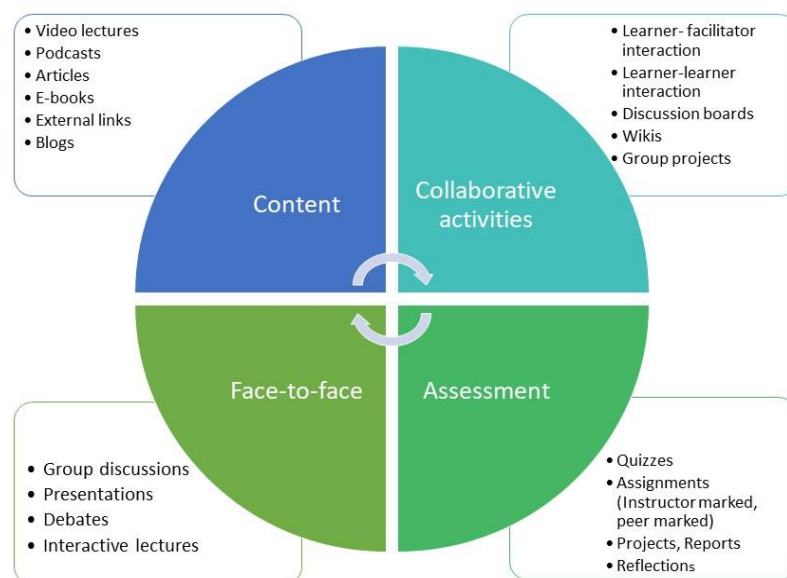
Fig. 5: Main components of the blended learning environment



Designing a blended learning session

The process of blended learning goes through the following steps in a cyclical manner: planning, designing, implementing, reviewing and improving. Fig. 6 shows some of the activities that can be incorporated into blended learning sessions:

Fig. 6: Examples of activities which can be included in blended learning



Questions to be asked while designing online activities

1. How will the learning activity support the intended learning outcomes?
2. What will motivate the learners to engage in online activities?
3. How can the facilitator motivate the learners and encourage to support one another in online learning?
4. Can a learner's activities and tasks be incorporated into continuous assessment, so that the learning activities can conform to the principles of student-centred learning?

EXAMPLE

Here is an example of a blended learning module for undergraduate students of final MBBS (Part II):

BLENDED LEARNING MODULE ON CORONARY ARTERY DISEASE

Learning objectives:

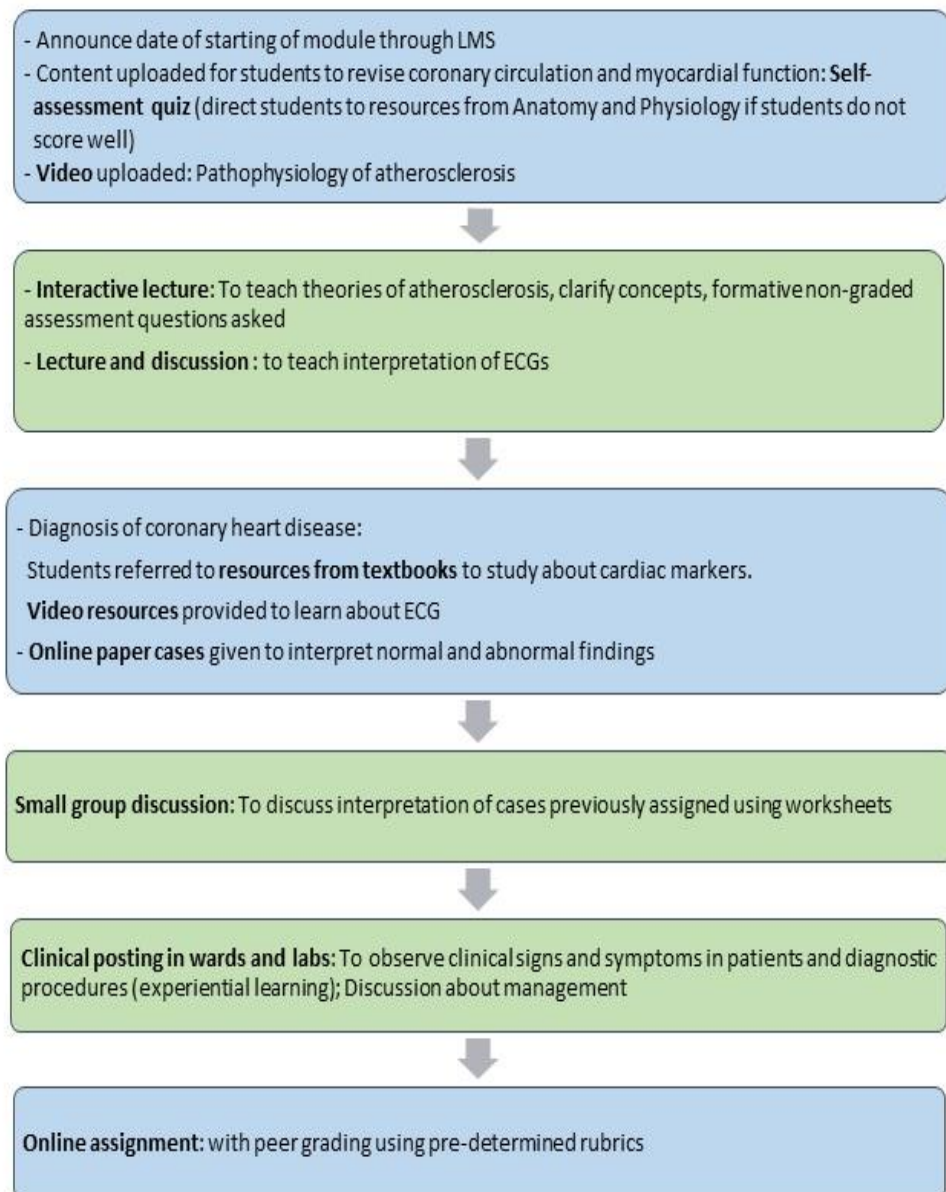
On the completion of this module, the learner should be able to:

- Describe the etiopathogenesis of coronary artery disease
- Choose the correct approach to diagnose coronary artery disease
- Apply the right medical and surgical approaches to manage a case of coronary artery disease

Fig. 6: Online and face-to-face components of a blended learning module on coronary artery disease

■ - Face-to-face

■ - Online component



Advantages of Blended Learning

1. Improved content access to the learners,
2. Learner-centered teaching,
3. Improves communication, creativity, collaboration and critical thinking among learners,
4. Inculcate life-long learning skills,
5. Provides greater flexibility to the learners.

Challenges:

1. Creating infrastructure to deliver online contents,
2. Training faculty members in the process,
3. Providing accessibility to the learners,
4. Organizational culture and support.

Blended learning is an effective method which is student centric and provides flexibility to learners. It must be adapted to meet the needs of the new digitally savvy learners.

EPILOGUE

The concept of triage

During the Covid- 19 pandemic, most faculty have been involved in clinical care, and learners had to be off campus due to safety concerns. Medical education had to take a back seat. Clinical teaching, specially, has been disrupted in these unprecedented circumstances. At a time like this, we will have to take some difficult decisions to cater to our immediate needs and mitigate the long-term negative consequences. We will have to evaluate the feasibility of what can be done and triage our resources. At all levels, we will have to determine: (a) what activities can be continued, (b) what activities should be postponed, (c) what activities can be adapted to another format and what remedial action/s need to be taken, (d) what activities should be dropped, and (e) what new activities need to be added.⁶¹ For example, if clinical teaching cannot be conducted during the pandemic, one has to assess which parts can be converted into video or online teaching, and what needs to be postponed for later. Batches of students who have missed certain competencies must be taught and assessed on those competencies, once the campus is safe for on-site classes. If Covid- 19 related competencies were not being taught earlier, they have to be added to the curriculum. This kind of mapping of competencies where sacrifices and difficult choices to be made are charted out, is useful in a crisis. These kinds of negotiations must be made reflecting on the ultimate impact on medical education in the future.

Sharing resources

Since most institutes face a resource crunch, it is advisable to share resources such as instructional videos and skills laboratories between institutes. Preparing instructional videos is time consuming and needs trained resource faculty. Once these instructional videos are prepared, they can be reused, and a library of such videos can be developed as collaborative project between the institutions or Universities for common use. Colleges of one region can collaborate and create electronic question banks using the concept of consortia. All participating institutes will need to contribute good quality questions which are validated to the question bank. Administrative costs of maintaining the question bank can be shared between all participating institutes.

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Telemedicine Practice Guidelines

April, 2020

Note: The Telemedicine Practice Guidelines is an integral part of the Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002, popularly known as the Code of Medical Ethics. Hence, the principles enunciated therein are *ipso facto* applicable to the practice of Telemedicine. FAQs are indicative only , not exhaustive.

From Patients/ Care-seekers' point of view

1. How can I know whom to contact or how to get in touch with the doctor (Registered Medical Practitioner, RMP) on telemedicine?

Patient can contact any RMP of modern medicine duly registered with MCI/State Medical Councils; and if he/she agrees to provide a telemedicine consult, then it means mutual consent has been given.

2. I am old and unable to physically visit a hospital and I have a nurse taking care of my clinical condition. Can I ask my nurse to consult on my behalf and how can she enable me for a better consultation?

Definitely. Your nurse (duly trained and registered in Nursing Council) can consult on your behalf if you record your consent with the RMP for the same during tele-consultation. The RMP can request your Nurse to do routine clinical examination (for which nurse is duly trained) and provide requisite information, and then RMP can provide health care advice, counselling and prescribe appropriate medications.

3. In case of an emergency, can I call any RMP for an immediate advice?

Yes, you may call any RMP for an advice for a medical emergency, but you cannot insist for an advice if the RMP chooses not to reply or give any specific advice.

4. How would teleconsultation be useful in an emergency?

In case alternative care is not immediately feasible, tele-consultation might be the only way to provide timely care. In such situations, RMPs may provide consultation to their best judgement. Such services might be limited to first aid, life-saving measure, counselling and advice on referral. However, telemedicine should be avoided for emergency care to the possible extent specially when alternative in-person care is available.

5. Would a RMP be entitled for fee for his/her consultation through telemedicine also?

As per the guidelines, an RMP is authorized to charge a fee for a consultation and provide a receipt for the same.

6. Can a RMP refuse or discontinue tele-consultation at any point of time?

The guidelines allow a RMP to refuse or discontinue a teleconsultation, with due notice to the patient , during any time of the consultation process. Similar liberty has also been provided to the patients.

7. Are the prescriptions provided via teleconsultation legally valid and how do I ensure that the RMP is qualified for the prescription?

It is mandated in the guidelines that for all teleconsultations, the RMP should identify him/herself and also mention/ display his/her MCI/State Medical Council registration number. It is also mandatory that the RMP issues prescription as per the specified format, which should have his/her digital signature and the Registration number. The Registration of the RMP can always be counter checked, if desired on the websites of relevant Medical Councils.

8. How do we know that our privacy is not breached by tele-consultation?

The Guidelines have laid down strict norms for the RMPs not to breach the privacy of the patients in any form. However, the RMP cannot be held responsible if there is a reasonable evidence to believe that patient's privacy and confidentiality has been compromised by a technology breach or by a person other than RMP.

9. If I am on a follow-up care for a Chronic condition (say Diabetes), for how long can I continue to request for refill for my medications to my RMP?

The Guidelines define follow-up consultation for a maximum period of 6 months. After this period, an in-person consultation is mandatory.

10. We are a group of Technology Platform providers for enabling teleconsultations on behalf of patients with RMPs. How does the guideline enable us?

Section 5 of the Tele medicine Guidelines have laid down specific guidelines for the same and may please be referred to.

From RMP/ Care-givers' point of view

1. Who are entitled to provide telemedicine consultation?

As on date all Registered Medical Practitioners (RMP) under IMC Act, 1956 can provide telemedicine consultations but only after they qualify the prerequisites.

2. What are the prerequisites to be for doing a telemedicine consultation?

The MCI is in process of developing an online telemedicine course for ensuring uniformity. Once the course is developed, it will be mandatory for all RMPs to undertake this course within three years of its notification. Thereafter, it will be compulsory for all RMPs who wish to tele-consult to have undergone such a course.

As on date, all RMPs can tele-consult, provided they follow the Telemedicine Practice Guidelines notified under IMC Act, 1956.

3. Can a Health Worker and Care givers do teleconsultation for a patient?

Yes a health worker such as Auxiliary Nurse Mid-wife (ANM)/Nurse etc. can do tele-consultation for a given patient. The guidelines mention the framework for such a scenario.

4. In case I feel the patient requires a physical examination, how do I ensure that?

The RMP has the right to pause his/her tele-consultation and recommend an in-patient consultation. Besides, if during the teleconsultation it appears that a physical examination is mandatory but not feasible on the mode being used for the consultation, the tele-consultation should be aborted and the patient referred for an in-person review.

5. Do I need to keep screenshots and records to safeguard myself?

Yes. It is specified in guidelines. It is incumbent on the RMP to maintain the following records/ documents for the period, as prescribed from time to time. These include Log or record of Telemedicine interaction (e.g. Phone logs, email records, chat/ text record, video interaction logs etc.). The RMP should retain patient records, reports, documents, images, diagnostics, data (Digital or non-Digital) etc. utilized in the telemedicine consultation. Specifically, in case a prescription is shared with the patient, the RMP is required to maintain the prescription records as required for in-person consultations.

6. Recently, I have heard in legal disputes that judgement has been given that doctors are not supposed to communicate on WhatsApp. What is the status after these guidelines?

With the notification of Telemedicine Practice Guidelines under the IMC Act, 1956 RMPs under IMC Act, 1956 are now empowered and legally protected to provide teleconsultation by any mode, for various settings, as specified in the document.

7. What are the legal effects of inadequate management as perceived by a patient?

The Telemedicine Guidelines comprehensively provides various settings under which different modes of teleconsultation can be undertaken and also enunciates steps to be undertaken to prevent any miscommunication between the patient and RMP. Besides, it also mentions steps to be taken to ensure documentation and thereby avoid legal issues. If despite these measures, the patient still perceives inadequate management, which can also happen in an in-person consultation, the legal issues need to be dealt in a similar way.

8. What happens if a doctor does not want or wishes not to attend to a request made by phone or WhatsApp?

The Telemedicine Guidelines mention that a RMP has the liberty not to attend a teleconsultation request made by a patient.

9. What if a patient calls at an odd time like midnight when the RMP is not on duty?

The RMP can choose either to attend the call or not. The RMP can also choose not to provide consultation to the patient (if it does not suit the RMP) during on duty hours also.

10. In trauma and in acute emergency, if the RMP asks for immediate referral to a hospital and a patient insists for tele-management, what to do?

The doctor should record his/her statement about the advice given regarding referral for in-person consult (as specified in the guide lines) and referral. In case the patient insists, the best possible care that can be given on tele-consult in the form of advice, counselling, first-aid measures to enable immediate relief should be provided. In case the consultation is through a Health Worker of another RMP, advice on medications, as specified in the guidelines can be given.

11. In case of problems with internet connectivity, the resultant telephonic consult may be of poor quality. What should be done in this context?

If the issue of connectivity is in the beginning of the consult, the RMP may choose not to proceed with the consultation, citing the reasons. If the issue of poor connectivity happens during the course of the communication, the same can be recorded and kept as a proof.

12. Will the prescription sent online as an image or scan be honoured by the local chemist?

Yes, the following are specified in the guidelines:

If the RMP has prescribed medicines, RMP shall issue a prescription as per the Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations and shall not contravene the provisions of the Drugs and Cosmetics Act and Rules. A sample format is suggested in Annexure 2 of the document. RMP shall provide photo, scan, digital copy of a signed prescription or e-Prescription to the patient via email or any messaging platform. In case the RMP is transmitting the prescription directly to a pharmacy, he/ she must ensure explicit consent of the patient

that entitles him/her to get the medicines dispensed from any pharmacy of his/ her choice

13.Do I need a print out of the prescription?

No, an e-prescription as specified in the guidelines will be sufficient. However, it should comply with the guidelines as mentioned.

14.For that matter if some investigations are needed and doctor asks for them through tele communication, will the Pathology Lab/Imaging Centre etc. honour it?

Yes, the labs or centres etc. will honour it. The Telemedicine guidelines clearly mention that counselling a patient may also involve ordering new investigations, if deemed necessary by the RMP.

15.How to tackle issue of payment of fees to an RMP, as a patient may be reluctant to pay as physical examination is not possible?

For the purpose of fees in telemedicine consultation, the guidelines specify that Telemedicine consultations should be treated the same way as in-person consultations from a fee perspective and an RMP may charge an appropriate fee for the Telemedicine consultation provided. The very fact that the tele-consultation has been initiated, it means that both patient and doctor have mutually consented for the same. These are specified in the flowcharts accompanying the Guidelines.

16.The RMP may advise beyond his jurisdiction, for which he may not have specialization. How to take care of this issue?

Once a tele-consultation has been initiated on a mutual consent between a patient and a consulting RMP, then the RMP can advise on the health issues to the best of his knowledge. All RMPs can practice modern medicine and are also aware of the jurisdiction of their specialization.

17.Can schedule H class of Drugs be prescribed by tele-consultation? Which classes of drugs have been enabled by the guidelines for tele-prescription?

The drug prescription in Telemedicine guidelines is based on the clinical scenario, judgement of the RMP and the mode of consultation, as specified in the framework. Hence, specific nomenclatures such as Schedule H etc. classes of drugs have been avoided.

The classification of list of drugs provided in the document is based on practical clinical pathways.

A prohibited list of drugs is also given and this is specified as to include Schedule X of Drug and Cosmetic Act and Narcotic, Psychotropic substances. As such these lists of drugs mentioned in guidelines can be amended from time to time based on directions of the MCI and MoHFW.

18.Can I prescribe antibiotics on tele-consultation?

Antibiotics can be prescribed by the RMP, if he/she is strongly convinced about the same based on the type and mode of tele-consultation. As such, all tele-consultations mandate a clear documentation of provisional diagnosis and reasons for prescription of particular drug. This is as well applicable for antibiotics. As in all scenarios, the RMP will be responsible for his/her prescriptions.

19.Can I prescribe injectable medications on tele-consultation?

Prescriptions for injectable medicines can only be given if the consultation is between an RMP with another RMP. In certain circumstances, it may be prescribed to a Health Worker for administration to a given patient. In such a scenario, the RMP must be confident of the setting of the facility and the technical expertise of the Health Worker. The exceptions to these would be prescribing some follow-up medications which are available only as injections such as Insulin, Low Molecular Weight Heparin, Vaccines etc.

20.I run a busy OPD and cannot attend to many patients at the same time. Can I record a tele-consultation through my allied healthcare professional on video and then, prescribe medications off-line to the patient ?

No, this is absolutely not allowed in the guidelines. The very premise of tele-consultation through a Health worker (as per the guidelines) dictates that the RMP, Health worker and the patient introduce themselves to each other and give mutual consent for the tele-consultation. The role of Health worker is just to facilitate the process of tele-consultation to enable RMP to take informed decisions during this process. These are possible only on a live consultation. It would be highly unethical for an offline consultation through a health worker.

21. We are a group of RMPs who would like to start a ‘Telemedicine Clinic’ to care for the needy patients who would approach us. How do the guidelines help us do that?

Foremost, you have to decide the appropriateness of tele-medicine consult and its mode for a given scenario, as specified in the guidelines. You will have to record all tele-consultations and would be responsible for all consultations provided by telemedicine.

Broadly, the following are the services your group could provide:

- Health education
- Guide patients for an appropriate in-patient consult
- If it’s a follow-up consult for a patient whom you have seen, can prescribe for medications for optimizing that particular medical condition to the patient or care-giver
- If it’s a new clinical condition which can be reasonably diagnosed on a video-call (such as Dermatological lesions etc), then you can prescribe medications to the patient or care-giver
- If you are a group of specialists, then, can advise other RMPs appropriately
- If you have a Health Worker on the field with the patient, then you can prescribe medications based on the Health Workers’ inputs- provided these are as per norms of the guidelines.
- In case of emergency clinical conditions, provide advice for immediate relief, first-aid and guide/ facilitate appropriately for an immediate in-patient consult.

22. Could you try to expand on the list of conditions by examples, which you can advise on Video-call consultation?

Video consultation give an added advantage of visual perception (provided it is of reasonable good quality) which is crucial for many clinical conditions. For instance, a RMP can take suitable tele-consultation pathways for conditions such as:

- Pallor and Koilonychia: Prescribe Iron tablets on first-consultation and advice further investigations
- Jaundice/ Cyanosis: Advice for urgent referral for in-patient consultation
- Trauma: Can assist in Tele-triaging through a Health Worker

- Respiratory distress: Assess work of breathing and advice another RMP/ Health Worker for appropriate intervention
- Rheumatic conditions: Can assess range of motion of joints through a health worker and can modify medications during a follow-up consultation
- Tele-radiology, Tele-ophthalmology, Tele-pathology can be leveraged for discussion between two RMPs.

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भारतीय आयुर्विज्ञान परिषद्
MEDICAL COUNCIL OF INDIA

BOARD OF GOVERNORS
IN SUPERSESSION OF MEDICAL COUNCIL OF INDIA

No. MCI-7(9)SG/2020/Med./ 110393

Dated: 20/07/2020

To,

1. The Vice Chancellor of all Health Universities.
2. The Dean/Principal/Director of all Medical Colleges/Institutes.

Subject:- AIIMS-National Grand Rounds on COVID-19 – reg.

Madam/Sir,

The All India Institute of Medical Sciences, New Delhi has been extensively involved in managing patients, developing guidelines, policies and research in COVID-19. It has managed over 4000 patients of all severity of disease. In an effort to share its experience and initiate discussions on management of common issues related to COVID-19, AIIMS New Delhi in conjunction with Niti Aayog and Ministry of Health and Family Welfare, Government of India launches National Clinical Grand Rounds (CGR) on COVID-19.

These CGRs will include presentation of clinical cases by physicians directly involved in their management. Challenges faced in the management will be discussed by a panel of eminent experts from across the country and outside India. Each case discussion will be followed by a short presentation on clinically relevant topics in managing COVID-19. Each CGR will also include a Q&A session where physicians, who log-in to view the session, can ask patient management related questions to the panel of experts.

The first CGR 19 will focus on managing patients with SARI who are clinically suspected to have COVID-19 but test negative on the initial RT-PCR. The discussions will be led by Prof. Randeep Guleria, Director, AIIMS New Delhi. The live CGR can be accessed on Wednesday, 22nd July 2020 at 3 PM at <https://covid.aiims.edu/cgr/>. Options to ask questions will be displayed on the webpage.

It is requested to participate in these Grand Rounds and encourage the faculty members to actively discuss the management of Covid-19 patients.

Yours faithfully,


(Dr. R.K. Vats)
Secretary General

Applications are invited from medical colleges for seeking recognition as Regional Centre recognized by the Undergraduate Medical Education Board (UGMEB), National Medical Commission.

The requirements and proforma for application are attached herewith.

Applications will be received **on or before 30th November, 2021, by 17.00 hours.**

Correspondence may be addressed to:

The President,

Undergraduate Medical Education Board (UGMEB),

National Medical Commission (NMC),

Dada DevMandir Road, Dwarka Phase- 1,

Pocket 14, Sector 8, Dwarka, New Delhi 110077

E-mail: ugmeb@nmc.org.in

From Office of the President,

Undergraduate Medical Education Board (UGMEB),

National Medical Commission.

**SOP FOR RECOGNITION OF A MEDICAL COLLEGE AS REGIONAL CENTRE
RECOGNISED BY UNDERGRDUATE MEDICAL EDUCATION BOARD, NATIONAL
MEDICAL COMMISSION**

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Introduction:

As per GMER, 1997, it has been made mandatory for all medical colleges to establish Medical Education Units (MEUs) or departments in order to enable faculty members to avail modern education technology for teaching. In order to boost this activity, Basic Course Workshops in Medical Education Technologies are being conducted by the medical regulator since 2009 through selected Regional and Nodal Centres, (Nodal Centres are upgraded regional Centres) located at medical colleges with required infrastructural and trained manpower.

The Regional Centers conduct Workshops in

- (1) Basic Course Workshop (BCW) in Medical Education Technologies
- (2) Attitude, Ethics and Communication Module (AETCOM)
- (3) Curriculum Implementation Support Program (CISP).

The following are the requirements for recognition by Undergraduate Medical Education Board, National Medical Commission, of a medical college as a Regional Centre for Medical Education Technologies (MET).

- I. The medical college should be of at least 10 years standing with both undergraduate and postgraduate teaching.
- II. Functional Medical Education Unit of at least 10 years standing with documentary evidence of having conducted revised Basic Course Workshop in MET, AETCOM & CISP training for its faculty.
- III. Educational Research Track with Educational Research undertaken by the Faculty and Students be submitted. Reports of Training for Assessment and Evaluation, especially, continuous Assessment, Competency Based Assessment should be submitted.
- IV. Educational Research Scholarships, Publications in Indexed Journals will be considered while giving recognition as Regional Center for M.E.T. Faculty with PhD/ MPhil In Medical Education will be given weightage.
- V. Institution must have Functional Skill Labs, Clinical, Simulation and Communication Skill Labs.

Human Resource

Composition of staff for Department of Medical Education at Regional Centres is as follows:

1. **Officer in Charge:** Dean/Principal/Vice-chancellor
2. **Convener and Resource Faculty**

Academic requirements for Convener and Resource Faculty

She/He should have undergone revised Basic Course Workshop, AETCOM & CISP& Advance course in Medical Education at allocated Nodal Centre or any other additional qualification like M. Med, MHPE, Diploma in Medical Education, FAIMER, or IFME Fellowship, within such prescribed period as decided by NMC from time to time.

Responsibility

Convener & Resource faculty to conduct/supervise/observe revised Basic Course Workshop & AETCOM/CISP

i. Convener

- a. The Coordinator of MEU of the college will be designated as Convener of RC
- b. One Head of the Department of Medical Education at the pay scale of Professor/Associate Professor **in addition** to his/her full-time responsibilities as teaching faculty of the concerned institution. An undertaking from the Dean of the concerned Institution in this regard would be mandatory.
- c. The proposed convener should be appointed to hold the responsibility for at least 3 consecutive years.

ii. Resource Faculty (minimum -10; maximum – 20)

- a. Out of the total, not more than 25% of the Resource Faculty (of the total number of Resource Faculty) in each Regional Centre *could* be from outside the Nodal and Regional Centre but *should* be from the colleges allocated to the RC/NC.
- b. At least 05 of these faculties should be associated with the Medical Education Department for at least 05 years. The pool of Resource faculty should be gradually expanded.
- c. Outside Resource Faculty may be co-opted (**not more than 25% of total faculty in ME Department**) with same qualifications & training as regular resource faculty

3. Supportive Staff:

- | | |
|---|-----|
| a. Stenographer / Office Assistant | : 1 |
| b. Office assistant / Computer Operator | : 1 |
| c. Technicians for Audio Visual Aids /Photography | : 1 |
| d. Peon | : 1 |

Infrastructure and equipments

Journals

The Medical Education Department library should have books on Medical Education (20 nos) and should have access (print or web) to at least three of the following Journals:

- Medical Teacher
- Medical education
- Academic Medicine
- The Clinical Teacher
- BMC medical education

The Regional Centre should have the following infrastructural facilities:

- Appropriate air-conditioned area which can accommodate around 30 participants
- blackboard /whiteboard/multimedia board
- Audio/video aids, proper sound recording system, backed up by a continuous power supply.
- Facilities for holding small group discussion
- Facilities for holding large group discussion
- Facilities for locating OSCE/OSPE stations
- Skills lab as per details given in NMC module on Skills lab (see NMC Website)
- AV aids including black/white boards, flipcharts, overhead projectors, LCD projector, computers with printers, photocopier, internet connection etc as per detailed list given herein under:
- Accommodation facilities within reasonable distance from campus at reasonable cost.

The Expert Group members finalized the list of equipments required at NMC Regional Centres, which is given as under:-

List of equipments required at NMC Regional Centres in MET (as per Expert group recommendation- MCI)

The Medical Education Unit to be housed in an appropriate area which can accommodate around 30 participants in a workshop format and should have the following equipments:

- Two Multimedia PCs (high speed broadband 4G)internet enabled with color Monitors desktops/laptop with LCD projector in a MEU room where MEU training program is to be conducted:
- Audio Video capture system : 1 classroom

- Multimedia projector : 2
- Screen for projection : As per requirement
- Scanner + printer + copier : 1
- Laptop : 1
- Magnetic Board /flip boards : As per requirement
- Overhead projector (optional) : 2
- Laser Printer with scanner : 1
- PA system with cordless mikes (3) and Collar mikes (3)
(Computers will be utilized for the entire media operation, i.e. for connectivity with printers, digital photography and scanners. It should have video-editing facility)

List of equipments required at NMC Nodal centres/Regional Centres in MET

- Two Multimedia PCs (high speed broadband 4G)internet enabled with color Monitors desktops/laptop with LCD projector in a MEU room where MEU training program is to be conducted: 2
- Model based or any other learning management system for faculty training
- High speed broadband 4G)internet enabled linking of Live session of NMC with 2 high resolution camera (1 facing faculty and 1 facing participants)
- High speed broadband 4G)internet enabled monitoring system for online observation of MEU training program under RC/NC
- Recording & storing of MEU workshop in online LMS
- System for conducting live webinar
- Sound proof audio video recording system

APPLICATION FORM

An application form with the following details may please be submitted to:

The President,

Undergraduate Medical Education Board (UGMEB),

National Medical Commission (NMC),

Dada DevMandir Road, DwarkaPhase- 1,

Pocket 14, Sector 8, Dwarka, New Delhi 110077

E mail: ugmeb@nmc.org.in

FORM

1. Name of medical college & contact details:
2. Year of starting College:
3. Category of courses run: UG/PG/Super specialty
4. Details of MEU including year of establishment, faculty, ancillary staff:
 - Year of establishment of MEU
 - Name, designation (parent department) & date of appointment of proposed Convener of RC including training received in **Medical Education** with details (AETCOM/Basic/revised Basic Course Workshop/CISP/ACME/ M. Med, MHPE, Diploma in Medical Education, FAIMER Fellowship or IFME).
 - Name, designation & date of appointment of resource faculty in the proposed ME Department (including training received in Medical Education with details (AETCOM/Basic/revised Basic Course Workshop/CISP/ACME/ M. Med, MHPE, Diploma in Medical Education, FAIMER Fellowship or IFME) along with the date of appointment.
 - List the names, designation and contact address of outside Resource Faculty who will be co-opted (not more than 25% of total faculty in ME Department) with same qualifications & training as regular resource faculty.
 - Updated CV of the proposed Convener and resource faculty
 - List the names & designation of support staff

5. Details of books and journals in Medical Education available in MEU

6. Infrastructural facilities available in MEU

- a. Facilities for holding large group discussion
- b. Facilities for locating OSCE/OSPE stations
- c. Skills lab (as per details given in NMC module on Skills lab (see NMC Website)
- d. AV aids including black/white boards, flipcharts, overhead projectors, LCD projector, computers with printers, photocopier, internet connection etc as per detailed list given herein under:
- e. Accommodation facilities for participants within reasonable distance from campus at reasonable cost.

7. List of equipments required at proposed NMC Regional Centre in MET

8. List of **workshops in medical education** conducted by Department of medical education with title, dates etc.

(To be signed by Director/Dean of the Institution concerned).

dated:

Applications by e mail or hard copy should reach the above mentioned address on or before 30th November, 2021. Applicants shall be intimated about their selection by 15th December, 2021.

UGMEB reserves the right to grant or refuse requests from medical colleges to be recognized as Regional Centres in Medical Education Technologies.

दूरभाष/Phone: 25367033, 25367035, 25367036

वेबसाइट/website: www.nmc.org.in

पॉकेट-14, सेक्टर-8, द्वारका

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Phase -1, New Delhi - 110077

राष्ट्रीय आयुर्विज्ञान आयोग
National Medical Commission
Academic Cell

D 11011/228/2023/Academic Cell ००७८०३

Date: 21.02.2023

To,

The Convener/Co-Convener
All NC's & RC's
(list attached)

Subject: Guidelines to conduct revised Basic Course Workshop (rBCW): Change of Observer/Participant : Reg

Madam/Sir,

As per laid down instructions/guidelines issued by NMC, the Nodal and Regional Centers are sending proposal with list of participants, faculties and nominated Observer, to UGMEB, NMC for seeking permission to conduct Revised Basic Course Workshop (rBCW) at various Medical Colleges. The proposal, fulfilling requisite terms & conditions, is being accepted and accordingly permission is granted to conduct such rBCW. However, of late, it is observed that after granting permission to conduct rBCW, the NCs/RCs are sending proposals frequently to change the name of Observer and participants in a very routine manner. At times, the requests are made to change the participants at a large scale even more than 1/3rd of the total participants earlier approved. This is not a healthy practice and shows a lackadaisical and unplanned approach towards conducting rBCW by the RC/NC/Medical College. Un-deniably, under emergent and unavoidable situation, changes in the name of Observer or participant(s) may be essential, but this practice should not be adopted in a routine manner.

2. To curb such undesirable and unjustifiable practice, the following guidelines/instructions are issued for strict compliance by all the concerned:

- i) Before sending proposal to UGMEB, NMC for permission to conduct rBCW, the concerned NC/RC/Medical Colleges must ascertain the availability of the nominated Observer and participant(s) to avoid any change(s) at a later stage.

Contd...2

- ii) In case, it is inevitable to seek permission for change of Observer or participant(s) under emergent situation, such proposal should be sent to UGMEB, with full justifications/reasons at least three (03) working days in advance before commencement of the rBCW.
 - iii) In, no case, permission will be granted if the number of participants being replaced, exceeds (03) three. If the Number of participants proposed for replacement exceeds three, the permission granted to conduct said rBCW, shall be withdrawn.
 - iv) If proposal for change of three or more participants is received in UGMEB, NMC thrice or more in a calendar year, action will be initiated against concerned RC/NC to withdraw status of RC or NC, as the case may be.
3. These instructions should be followed by all concerned vigorously.

Aruna V Vanikar
(Dr. Aruna V Vanikar)
President, UG MEB

Copy for information to:-

- 1. Chairman, National Medical Commission, Sector - 8, Dwarka, New Delhi – 110077
- ✓ 2. DMMP for uploading above instruction in NMC Website.
- 3. Guard file

राष्ट्रीय आयुर्विज्ञान आयोग
National Medical Commission
(Undergraduate Medical Education Board)
(Academic Cell)

F No. D 11011/343/2023/Academic Cell

Dated, the 22nd Mar, 2023

CIRCULAR

Sub: FACULTY DEVELOPMENT PROGRAMS CONDUCTED BY NMC- ISSUANCE OF GENERAL GUIDELINES THERETO

In order to improve medical education in India and to enhance medical proficiency & skills various Faculty Development Programs (FDPs) are being conducted by National Medical Commission. These FDPs, at present, are being conducted as per syllabi formulated long back by erstwhile MCI.

2. With the passage of time, there have been sweeping changes in the field of medical technology and education too. Therefore, a strong need was felt to review and revise the existing guidelines/syllabi etc. on conduct of various FDPs, namely rBCW, ACME and CISP.

3. Furthermore, since the inception of NMC, approximately 200 new medical colleges have been established across India taking the present number to 639. This necessitated creation of more Regional Center (RC) and Nodal Center (NC) to cater to the training need of the growing populace of uninitiated medical teachers. Towards this endeavor 12 new Regional Centers have been added and 02 existing Regional Centers have been upgraded to Nodal Centers in the past one year. This makes a total of 22 RCs and 12 NCs working towards FDP under flagship of Academic Cell, UGMEB, NMC.

4. Thus, to meet the present day expectations of and from the faculties, a Committee, consisting of the experts and professionals, was constituted under the Chairpersonship of President UGMEB to review the conduct of various Faculty Development Programs, besides examining other associated aspects including financial aspects etc. vide order No. 43/2023/Academic Cell dated 26.12.2022.

5. The Committee assembled on several occasions and after examining all aspects/inputs on the subject, submitted its findings and recommendations. The rBCW is rechristened as BCME (Basic Course in Medical Education) incorporating relevant changes. And a Curriculum Implementation Support Program- 3 (CISP-III) has been formulated to take care of the training of additional clinical faculty for better implementation of CBME since the students of CBME

curriculum have entered their clinical phase. The recommendations of the expert group have now been accepted and approved by the competent authority.

6. Accordingly, revised guidelines are herewith issued for conduct of various Faculty Development Programs by Nodal Centers, Regional Centers, and Medical Colleges. These instructions/guidelines are more specifically described in various Annexures enclosed.

7. To ensure uniformity in conduct of FDP, training modules have been prepared by the expert group, incorporating certain common suggestions received from the environment. The training modules give a comprehensive overview of each topic besides outlining the objectives of a topic which must be covered during these workshops. These training modules shall be shared separately with NCs and RCs.

8. Recognizing the effort that goes in the conduct and implementation of these FDPs, the honorarium for Resource Faculty and NMC appointed Coordinator (previously known as Observers) has been substantially increased. Attention of all stakeholders is also drawn to financial aspect in conduct of these FDPs, more specifically described in Annexure-1 enclosed.

9. It is strongly recommended that Conveners of NCs and RCs convene an In-house meeting of all stakeholders amongst its MEU and CC to incorporate these new guidelines. Concurrently, to sensitize the faculty of allocated colleges, online contact session(s) should also be arranged for their MEU and CC. A completion report to this effect is to be submitted to Academic cell, UGMEB by Conveners of NCs /RCs by 15th Apr 2023.

10. It has been decided to resume the Advance course in medical education (ACME) from 1st July 23. The ACME in its revised form shall be of 06 months' duration now including the two onsite sessions of 5 days and 3 days. Further instructions on ACME shall be issued later.

11. **These guidelines shall come into force with effect from 17th April 2023.** Accordingly, existing guidelines issued by erstwhile MCI or by NMC from time to time on these subjects stand superseded or modified to that extent. The guidelines shall be adhered meticulously by all. Any violation will be viewed seriously.


(Dr. Aruna V Vanikar)
President, UGMEB
National Medical Commission

Copy to:

- Chairman, NMC
- All Presidents and Members of Boards
- Secretary
- Account section
- Admin and Academic cell

Enclosures:

- Annexure 1 : Financial Aspects / Budget Provisions for Faculty Development Programs
- Annexure 2 : Guidelines for composition of MEU and Curriculum committee of medical colleges.
- Annexure 3 : Guidelines for Conduct of Basic Course in Medical Education (BCME)
- Annexure 4 : BCME Program
- Annexure 5 : MEU information format for FDP proposal
- Annexure 6 : Curriculum Committee information format for FDP proposal
- Annexure 7 : List of participants for FDP (7a for BCME and 7b for CISP)
- Annexure 8 : Guidelines for NMC appointed Coordinator for FDP
- Annexure 9 : Convener's / Coordinator report format for BCME
- Annexure 10 : Participants' Feedback Form for BCME
- Annexure 11 : CISP III Guidelines
- Annexure 12 : CISP III Program
- Annexure 13 : Convener's report format for CISP III
- Annexure 14 : Coordinator report format for CISP III
- Annexure 15 : Feedback Form for participants for CISP III

**FINANCIAL ASPECTS / BUDGET PROVISIONS FOR FACULTY DEVELOPMENT PROGRAMS –
GENERAL ASPECTS**

The following guidelines are hereby issued for regulating budget and other financial aspects in conduct of FDPs:

1. The Faculty development programs (BCME/ CISP III/ ACME) conducted by NC /RC / Medical colleges shall bear a compulsory Registration fee as specified in subsequent paras. This shall be collected from the participants by organizing NC /RC / Medical colleges before the start of the course/program. The revised registration fee for various FDPs is as follows;
 - a) BCME : INR 5000/ + applicable GST
 - b) CISP III : INR 3000/ + applicable GST
 - c) ACME : INR 18000/ + applicable GST
2. The total GST, collected from participation fee shall be handled and deposited by the conducting NC /RC / Medical college as per Govt. Rules.
3. **Remittance of fee share to NMC:** 50% of the total fee component collected for BCME and CISP-III and 30% of the total fee component collected for ACME per course shall be remitted to NMC by way of an online bank transfer preferably prior to but not later than 1st day of the program. The amount shall be deposited in favour of **SECRETARY, NATIONAL MEDICAL COMMISSION**, Canara Bank's Savings Bank **Ac number 90682160000025**, IFSC code **CNRB0019109**.
4. The Dean / Principal shall email the transaction reference number from their official Id to the Academic cell (email Id: academiccell@nmc.org.in) the same day with a copy to Accounts dept of NMC (email Id: accounts@nmc.org.in). The subject heading of the e-mail shall be '**Remittance - FDP Fee**'. The email shall also include following details;

Remittance - FDP Fee	
Course	BCME / CISP III / ACME
Name of NC / RC/ Medical College, where the FDP is being conducted	
Dates of FDP	
Total number of participants attending	
Total amount of fee collected (Rs)	
Amount remitted to NMC	
Transaction reference number	
Date of Transaction	

-
5. **The percentage fee shares as mentioned above shall be remitted to NMC irrespective of configuration of workshop, in terms of the venue and the participants.**
 6. The NMC shall utilize this fund in providing honorarium to the Resource faculty conducting FDP sessions and to the NMC appointed Coordinators. It shall also be utilized towards payment of travelling & stay arrangements of NMC appointed Coordinators. NMC shall also provide funds towards secretarial assistance. The specifics of funding from NMC is as enumerated below under relevant paras of each program.
 7. The balance fee component of 70% in case of ACME and 50% in case of BCME / CISP - III shall be utilized by respective Nodal Center / Regional center / Medical College in providing,
 - a) Printed course material to participants,
 - b) Stationary to participants,
 - c) Lunch & Tea refreshments etc. to participants and,
 - d) Any other sundry expenses.A record of all such expenses shall be maintained for future audits.
 8. The Nodal Center / Regional Center / Medical College may at their discretion subsidize accommodation cost or any other expenses that participants may incur, from their surplus funds, if any.
 9. The Convener's report / NMC appointed Coordinator's report on FDP shall invariably include a copy of the details of remittance as enumerated in para 5 above.

FINANCIAL ASPECTS / BUDGET PROVISIONS - BASIC COURSE IN MEDICAL EDUCATION (BCME)

1. The Registration fee for participation would be Rs. 5,000/- (Rupees five thousand) per candidate per course, to be paid to the Nodal/ Regional Center / Medical College, where BCME is being held. GST shall be extra as applicable. The fee once collected is non-refundable, non-transferrable and not to be carried forward.
2. Expenses for travel and stay is to be borne by participants.
3. The concerned institutions of the participants may sponsor their FDP training under any of the academic heads as per mutual agreement (of the participant and parent institution).
4. Funding pattern from NMC for each BCME at RC / NC will be as under:
 - a) Funding shall be towards Faculty honorarium and Secretarial assistance only.

- b) It shall be provided for BCME courses being conducted for MEU and Curriculum committee members of allotted colleges and Faculty of Stand-alone PG Institutes.
- c) Faculty honorarium shall be paid @ INR 3000/- (Rupees three thousand) per day per faculty. The maximum honorarium for a faculty shall be INR 9,000/- (Rupees Nine thousand). Maximum honorarium per course shall not exceed INR 60000/ (Rupees sixty thousand). Faculty honorarium will be given for approved NC/RC faculty only.
- d) Secretarial assistance shall be INR 10,000/- (Rupees ten thousand) per course (for the secretarial staff and helping staff).
- e) Changes in financial funding to NC / RC is as depicted below:

Nomenclature	Existing (in Rs)	Revised (in Rs)
Faculty honorarium	25,000	60,000
Incidental expenses	5,000	--
Stationary	10,000	--
Secretarial assistance	10,000	10,000

5. Funding pattern from NMC for BCME at medical colleges;

- a) Medical Colleges will conduct BCME from their own resources. No financial funding will be provided from NMC.
- b) NMC appointed Coordinator honorarium @ INR 5000/- (Rupees five thousand) per day shall be borne by NMC. For each BCME of 3 days, maximum honorarium shall be INR 15,000/- (Rupees fifteen thousand).
- c) NMC appointed Coordinator duty for BCME can be performed on a maximum of 03 occasions in a financial year. This shall be strictly ensured by NC/ RC.
- d) TA/DA shall be paid to NMC appointed coordinator as per Govt rules on the matter. The payment shall be made after receipt of detailed report of the Workshop in the approved format with all its enclosures.

FINANCIAL ASPECTS / BUDGET PROVISIONS -CURRICULUM IMPLEMENTATION SUPPORT PROGRAM (CISP)

- 6. The Registration fee for participation shall be INR 3,000/- (Rupees three thousand) per candidate per course to be paid to the Nodal / Regional Center / Medical College, where CISP III is being held. GST extra as applicable. The fee once collected is non-refundable, non-transferrable and not to be carried forward.

-
7. Expenses for travel and stay is to be borne by participants.
 8. The concerned institutions of the participants may sponsor their training under any of the academic heads as per mutual agreement (of the participant and parent institution).
 9. Funding pattern from NMC for each CISP for the NC/RC and allocated Medical Colleges will be as under:

For CISP III at NC/RC

- a) Faculty honorarium shall be paid @ INR 3000/- (Rupees three thousand) per day per faculty. The maximum honorarium for a faculty is INR 6,000/- (Rupees six thousands). Maximum honorarium per course shall not exceed INR 40,000/- (Rupees forty thousands). Faculty honorarium is for NMC approved NC/RC faculty only.
- b) The Secretarial assistance shall be @ INR 5,000/- (Rupees five thousands) per course (for the secretarial staff and helping staff)

For CISP III at allocated Medical colleges

- a) Medical colleges will conduct CISP from their own resources. No financial funding will be provided from NMC.
- b) NMC appointed Coordinator honorarium @ INR 5000/- (Rupees five thousand per day shall be borne by NMC. For each CISP of two days, maximum shall be INR 10,000/- (Rupees ten thousands)
- c) NMC appointed Coordinator duty for CISP III can be performed on a maximum of 03 (three) occasions in a financial year. This shall be strictly ensured by NC/ RC.
- d) TA/DA shall be paid to NMC appointed Coordinator as per Govt rules on the matter. The payment shall be made after receipt of detailed report of the Workshop in the approved format with all its enclosures.

FINANCIAL ASPECTS / BUDGET PROVISIONS - ADVANCE COURSE IN MEDICAL EDUCATION (ACME)

1. The detailed ACME guidelines and program shall be shared separately.
2. The ACME registration fee is revised to Rs. 18,000/- (Rupees eighteen thousands) plus applicable GST for two contact sessions including course material, food etc.
3. Expenses for travel and stay is to be borne by participants.
4. The concerned institutions of the participants may sponsor their training under any of the academic heads as per mutual agreement (of the participant and parent institution).
5. Faculty honorarium of INR 3000/- (Rupees three thousands) per day per faculty per batch for onsite contact sessions. The maximum honorarium for a faculty shall be INR 30,000/ (Rupees thirty thousand). Maximum honorarium per course shall not exceed INR 1,50,000/- (One lakh fifty thousands). Faculty honorarium will be given only to NMC approved faculty for ACME course. For Online session moderation- honorarium of INR 3000/- (Rupees three thousand) per faculty per online topic. At least 2 two main moderators to be appointed for each topic. The total shall not exceed INR 30,000/- (Rupees thirty thousands) per batch.
6. Secretarial assistance- INR 25,000/- (Rupees twenty-five thousands) per course, (for the secretarial staff and helping staff) shall be borne by NMC.
7. The changes in funding pattern are depicted in the following table:

Nomenclature	Existing (in Rupees)	Revised (in Rupees)
Consumables	5,000	--
Learning Resource Material / Books (Including e- learning materials)	15,000	--
Stationary	20,000	--
Secretarial assistance	10,000	25,000
Contingency including venue arrangements	5,000	--
Participant Handouts	5,000	--
Faculty honorarium	75,000	1,80,000

GUIDELINES ON COMPOSITION OF MEU AND CURRICULUM COMMITTEE OF MEDICAL COLLEGES.

The Curriculum Committee (CC) shall ensure implementation and monitoring of curriculum at their colleges i.e. conduct of CISP, Time table scheduling etc. The Medical Education Unit (MEU) shall of a Medical College focus on training support i.e. conduct of BCME and other in-house training of faculty.

1. Constitution of Curriculum Committee in a Medical College

a) Curriculum Committee of a Medical College shall consist of:

- i. Dean/Principal cum Professor (Department). – Chairman of the Committee.
- ii. MEU coordinator
- iii. 01 x Professor/ Associate Professor - Pre-clinical branch.
- iv. 01 x Professor/ Associate Professor - Para-clinical branch.
- v. 01 x Professor/ Associate Professor - Medicine and allied branch.
- vi. 01 x Assistant Professor with minimum of 5 years teaching experience - Medicine and allied branch.
- vii. 01 x Professor/ Associate Professor - General Surgery and allied branch.
- viii. 01 x Assistant Professor with minimum of 5 years teaching experience - General Surgery and allied branch.
- ix. Student representative from Phase III.

b) All Curriculum Committee members including Principal / Dean should have undergone MCI/NMC revised Basic Course Workshop in MET or Basic Course in Medical Education (BCME) at their allocated Nodal Centre (NC)/ Regional Centre (RC). *

Note: If they are not already trained at NC/RC, they must get trained within 06 months on a priority basis.

c) Curriculum Committee Members should also possess additional qualification of ACME/ FAIMER/ MHPE/ Dip Med Ed. etc. as specified.

d) There should be a quarterly meeting of CC in the colleges every year and the report shall be submitted to the respective NC/RC within a month of the meeting. Conveners of NC/RC shall forward a consolidated report to Academic cell, UGMEB every quarter and highlight any issues of concern in the allocated colleges.

2. Constitution of Medical Education Unit (MEU) in a Medical College

- a) Officer- in-charge of the Medical Education Unit will be the Dean/Principal of the Medical College or /Vice-chancellor of the University.
- b) MEU Coordinator should be of the rank of Professor/ Associate Professor. **The Coordinator should continue for a minimum of 03 (Three) years.** For any change in Coordinator if required thereafter, prior approval of NMC shall be taken.
- c) MEU Coordinator must have undergone MCI/NMC rBCW or BCME at the allocated NC/RC and MCI/NMC Advance Course in Medical Education (ACME), or any other additional qualification like M. Med, MHPE, Diploma in Medical Education, FAIMER Fellowship, or IFME.

(Note: A waiver of additional qualification of ACME/FAIMER etc. is granted till 31st January 2024)

- d) MEU shall consist of Minimum 08 faculty and Maximum 14 faculty, including all cadres of full time faculty (out of which number of Assistant Professors shall not exceed 50% of total) with the following qualifications:
 - i. Have undergone rBCW or BCME at the allocated Nodal / Regional Centre
 - ii. **It shall also be ensured that MEU faculty so appointed must continue for a minimum of 03 (Three) years.** Any change prior to this shall only be permitted if the MEU faculty has retired/left the college. For any change in MEU faculty a prior approval of Convener of allocated NC/ RC shall be taken. A record shall be maintained at NC/RC and can be asked by Academic Cell, UGMEB at any time for verification.
 - iii. At least 50% faculty (minimum 04) should have received additional educational qualification* or training: i.e. MCI/NMC Advance Course in ME (ACME) at Nodal Centre, or any other additional qualification like M. Med, MHPE, Diploma in Medical Education, FAIMER Fellowship or IFME.
*(*Note: A waiver of additional qualification of ACME/FAIMER etc. is granted till 31st January 2024. However, it should be responsibility of Principal/Dean and MEU coordinator to enroll members into required courses on priority)*
- e) Support Staff shall be as per requirement. However, the college shall ensure that a minimum of 02 Support Staff (01 x Clerk, 01 X helper/ peon) are available with MEU at all times.
- f) MEU library should have books on medical education (minimum 10 titles as hard copies, not older than previous 02 editions/10 years) and books should be relevant to MEU

activities. The MEU should have access (print or web) to at least two of the following Journals:

- i. Medical Teacher
 - ii. Medical education
 - iii. Academic Medicine
 - iv. The Clinical Teacher
 - v. BMC medical education
 - vi. The National Medical Journal of India
- g) The Medical Education Unit is to be housed in a designated area. The area measurements should be as per regulations. The main area/hall should accommodate around 40 persons in a workshop format with proper seating facilities and should have the following minimum number of equipment:
- | | |
|--|-----------|
| i. Multimedia PCs, internet enabled, with color Monitors | : 02 |
| ii. Multimedia projector | : 02 |
| iii. Screen for projection | : 01 |
| iv. Scanner + printer + copier | : 01 |
| v. Laptop | : 01 |
| vi. Flip chart / White boards | : 06 |
| vii. PA system with cordless mikes and Collar mikes | : 02 + 02 |
- h) In addition, there should be availability of,
- high speed broadband with 300 mbps speed with two high resolutions camera - one facing faculty and another facing the entire participants to enable linking of live sessions of the workshop or webinars with colleges under RC/NC.
 - Facility for recording and storing all MEU workshops in online LMS as well as with storage in their own MEU.
 - digital photography
 - video-editing facility in a sound proof room.
- i) MEU can be assessed/inspected at any time by NC/RC/NMC.

3. Department of Medical Education at NMC Regional Centers and Nodal Centers shall have the following composition in terms of manpower and infrastructure requirements;

- a) **Officer in Charge:** Dean/Principal/Vice-chancellor
- b) **Convener of RC / NC:** At the pay scale of Professor/Associate Professor. She/he should have undergone revised Basic Course Workshop & CISP training at the allocated Nodal/Regional Centre and MCI/NMC Advance course in Medical Education at allocated

Nodal Centre or any other additional qualification like M. Med, MHPE, Diploma in Medical Education, FAIMER, or IFME Fellowship.

- c) The Convener of RC / NC shall hold the post for a minimum period of four years. For any change if required thereafter, prior approval of Academic Cell, UGMEB shall be taken.
- d) A Co-Convener shall be nominated by the Dean. Co-Convener shall be responsible for conducting/monitoring Faculty Development Programs, in the absence of Convener, Regional Centre.
- e) Each Regional Centre shall have **minimum -10; maximum – 20** number of Resource faculty including Convener/Co-Convener of the Centre.
- f) Each Nodal Centre in Medical Education shall have **minimum -12; maximum – 25** number of Resource faculty resource faculty in addition to Conveners and 02 Co-Conveners.
- g) At the Nodal Centre, in addition to the Convener, there shall be two Co-conveners, one Co-Convener for ACME and one Co-Convener for BCME and CISP.
- h) All resource faculty of RC / NC should be **Associate Professor** or above. They must fulfill the academic requirements in Medical Education as given below:
 - i. Should have undergone rBCW/BCME & CISP training at the allocated Nodal/Regional Centre. She/He should have received any of the additional educational qualifications or training: i.e. Advance Course in Medical Education, M. Med, MHPE, Diploma in Medical Education, FAIMER or IFME Fellowship.
 - ii. At least 05 of these faculty should be associated with the Department of Medical Education for at least 05 years.
 - iii. Out of the above, not more than 25% of the Resource Faculty (of the total number of Resource Faculty) in each Regional Centre **could** be from outside the Nodal and Regional Centre but **should** be from the colleges allocated to the RC/NC.

i) **Supportive Staff:**

- | | | |
|---|---|--------------------------|
| i. Stenographer / Office Assistant | : | 01 |
| ii. Office assistant / Computer Operator | : | 01 for RC, and 02 for NC |
| iii. Technicians for Audio Visual Aids /Photography | : | 01 |
| iv. Peon | : | 01 |

j) **Journals**

The Medical Education Department library should have books on Medical Education (minimum 20 different labels; not older than previous 2 editions or 10 years) and should have access (print or web) to at least three of the following Journals:

- i. Medical Teacher

- ii. Medical education
- iii. Academic Medicine
- iv. The Clinical Teacher
- v. BMC medical education
- vi. The National Medical Journal of India

k) Infrastructure and equipments

- i. The Department of Medical Education of the RC / NC shall be housed in an appropriate air-conditioned area which can accommodate around 40 participants in a workshop format. The venue should be backed up by a continuous power supply.
- ii. Following **infrastructural** facilities should be available:
 - Facilities for holding small group discussion
 - Facilities for holding large group discussion
 - Facilities for locating OSCE/OSPE stations
 - Accommodation facilities within reasonable distance from campus at reasonable cost

l) The list of equipment required at the NMC RC / NC is as given below: -

i. Multimedia PCs, internet enabled, with color Monitors	: 02
ii. Multimedia projector	: 02
iii. Screen for projection	: 01
iv. Scanner + printer + copier	: 01
v. Laptop	: 01
vi. Flip chart / White boards	: 06
vii. PA system with cordless mikes and Collar mikes	: 02 + 02

m) In addition, there should be availability of,

- high speed broadband with 300 mbps speed with two high resolutions camera - one facing faculty and another facing the entire participants to enable linking of live sessions of the workshop or webinars with colleges under RC/NC.
- Facility for recording and storing all MEU workshops in online LMS as well as with storage in their own MEU.
- digital photography
- video-editing facility in a sound proof room.
- Module based or any other learning management system (LMS) for faculty training.

GUIDELINES FOR CONDUCT OF BASIC COURSE IN MEDICAL EDUCATION (BCME)

Revised Basic Course Workshops (rBCW) in Medical Education Technologies is henceforth renamed as **Basic Course in Medical Education (BCME)**. As earlier, it shall be conducted at Nodal (NC) /Regional Centers (RC) or at Medical Colleges (under the supervision of NMC nominated Coordinator, previously known as Observer). The following guidelines are issued for the conduct of BCME:

2. BCME shall be conducted as per the revised program /curriculum attached as **Annexure 4**.
3. Curriculum of BCME-PG shall be same as that of BCME. However, while explaining the concept or for hands on activity, more examples from PG curriculum should be used.
4. The proposal of BCME must reach Academic Cell UGMEB at least 3 weeks prior to the proposed dates. Details of MEU and Curriculum Committee should be attached with the proposal as per the formats attached as **Annexure 5** and **Annexure 6**.
5. The participants shall be full time teaching faculty of colleges as per NMC regulations.
6. The participants will be considered on Duty Leave during the period of the BCME workshop.
7. The total number of participants per workshop should be from 25 (minimum) to 30 (maximum). A waitlist of upto 05 extra participants may be included in same excel sheet at the end of main list of nominated participants. Changes in participant list is to be avoided. Any last minute change must have valid reason duly supported by a letter from Dean / Principal.
8. Substitution of upto 03 participants shall only be permitted from the 05 wait-listed participants. These changes are to be communicated to Academic cell by email, preferably before the start of BCME but not later than 1st day of BCME program. Any deviation from this shall make participation of substituted participants invalid. In this regard also refer to UGMEB, NMC letter No, D 11011/228/2023/Academic cell 007803 dated 21 Feb 2023.
9. **If any last-minute changes / absence of participants lead to decrease in participant strength to less than 25, the said BCME shall stand CANCELLED. The same shall be intimated to Academic cell immediately.**
10. Expenses to conduct BCME at medical colleges shall be made available to the MEU Coordinator by the Head of the Institution/medical colleges.
11. The TA/DA of the participants will be met by the Participants/ Medical Colleges/ Institutions to which they belong, as is permissible.
12. Participation in BCME shall be counted against entitlement for a Zonal / National Conference wherever applicable.
13. For conduct of BCME at a medical college, the MEU Coordinator of the college shall send following documents to the Convener of their respective NC or RC well in advance so that the

proposal is received a minimum of 03 weeks in advance at Academic cell UGMEB, after vetting by Convener of affiliated NC / RC. The correctness of data in the documents must be ensured.

- a) Program of BCME, in word file, with details of resource faculty nominated to take that session.
 - b) List of MEU Resource Faculty (which is already approved) in word file as per format attached as **Annexure 5**, with all training details (updated). Any ACME participants attending BCME should not be added as resource faculty for the same BCME.
 - c) List of approved Curriculum Committee in word file as per format attached as **Annexure 6**.
 - d) List of Participants in word file as per format attached as **Annexure 7a**, with all columns filled. No abbreviations shall be used at all.
 - e) Action taken report, in cases where some suggestions / observations were given by NMC appointed Coordinator at an earlier rBCW/ BCME.
14. The BCME at medical colleges shall be conducted under the supervision of NMC appointed Coordinator from NC/RC, who shall be of Associate Professor or above rank. They will adhere to the guidelines as enumerated in **Annexure 8**.
 15. All communication with Academic cell UGMEB shall only be via email sent from Official Email-ids of NC/ RC/ Medical Colleges. Hard copies may be sent where necessary.
 16. To ensure uniformity in the content / syllabus of BCME across India, a training module is being shared separately. The objectives of the topic / session have been defined and these must be covered and elaborated upon by Resource Faculty while conducting BCME.
 17. Convener's / NMC appointed Coordinator's Report shall be submitted in the format attached as **Annexure 9**.
 18. Feedback report by the participants, after completion of the course, shall be submitted as per format attached as **Annexure 10**.
 19. **Issuance of Certificates:**
 - a) Certificates shall ONLY be printed by the Nodal/Regional Centers, as per approved format. The format will be shared separately. These certificates shall then be handed over to NMC appointed Coordinator for BCME at allocated colleges.
 - b) The Certificate of Participation shall be given only those participants who have attended all the sessions throughout the Workshop.
 - c) Proper record of issuance of certificates shall be maintained at RC /NC.

20. Issue of Duplicate certificate:

It may be issued only in cases where a written request is received from the participant duly countersigned by their Principal/Dean, for having lost their original issued certificate of FDP. The word 'DUPLICATE' shall be mentioned clearly on the new certificate. The Convener of the RC/NC shall do proper verification before issuance of Duplicate certificate. NC/RC is authorised to charge a fee of INR 3000/- (Rupees three thousands) fee for this.

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Proposed Program: Basic Course in Medical Education (BCME)

Day 1

Day Time	Session	Objectives	Duration	Suggested methods
9:00	Introduction session and Group Dynamics	• Pre-test • Intro of participants and faculty • Understand and apply concepts of group dynamics • Apply these concepts in working of groups/teams in teaching and learning	75 minutes	Team building exercises, Examples of small group/team working in the institutes
10:15	Learning process, Learning domains & Principles of learning	• Demonstrate a basic understanding of hierarchy of learning • Define learning domains • Use principles of learning in the teaching learning process	60 minutes	Interactive Building from participants' knowledge
11:15	Tea break			
11:30	Goals, roles and Competencies, Learning objectives (LO) in CBME	• Define goals, roles, competencies, LOs and explain relationship between each other • Elaborate the principles of competency based learning • To highlight concept of IMG • Design LOs for a competency	60 minutes	Use CBME UG/PG modules
12:30	Teaching learning methods (TLM): including Interactive Large Group, Small Group methods	• Enumerate various Teaching learning methods (TLM) • Use the principles of interactive learning in a large group • Understands the various methods in small group teaching • Understand changing role of teacher from information provider to facilitator	105 minutes	Use CBME module methods, introduce new methods e.g. like DOAP Demonstrate few methods, highlight role of facilitator
13:30	Lunch		45 min	
14:15	Teaching learning methods (TLM):	Contd.....		
15:00	Tea Break			
15:15	Introduction to assessment	• Elaborate the principles and types and attributes of assessment • Explain the utility of assessment	45 minutes	Basic principles based on the prior knowledge of the participants
16:00	Internal assessment (IA) and Formative assessment	• Understands steps in designing IA module • Provides effective feedback to students • Develop a plan for internal assessment and formative assessment	60 minutes	Demonstrate how IA can be calculated in all phases. Share examples of IA module

Day 2				
9:00	AETCOM: Concept and conduct	- Understands how to implement AETCOM in institute using various teams - Apply innovative methods in teaching & assessment of AETCOM competencies	60 minutes	Use example of multisubject team working to implement, AETCOM in all phases Demonstrate/discuss methods
10:00	SDL: Concept and conduct	- Understands the concept and conduct of SDL - Promote self-directed learning (SDL) in students	45 minutes	Demonstrate SDL conduct, preferably involve students also
10.45	Tea Break			
11:00	Effective clinical and practical skill teaching	- Teach skills effectively - Teaching skills at the workplace - Use a skill lab effectively - Understand student doctor learning concept	120 minutes	Use skill modules examples, Use skill lab, Demonstrate methods like OMP, SNAPPS, Mini-CEX etc.
13:00	Lunch		45 min	
13.45	Aligning TLMs for objectives and competencies	Understands aligning TLM with competencies, select the appropriate teaching method for various competencies	60 minutes	Use examples of competencies from 4 phases, 15 min group work for selecting methods for provided competencies, 8 min per group for sharing
14:45	Assessment planning, Writing the correct essay question and MCQs	- Understands concept of blueprinting - Design theory & practical/clinical exam. - Write an appropriate essay question including short answer & reasoning questions. - Write an appropriate scenario based MCQ.	120 minutes	Use examples from assessment module, Use your university examples of blueprint
15:00	Tea			
15:15-17:00	Assessment planning, Writing the correct essay question and MCQs	Contd.....		

Day 3				
9:00	Writing a lesson plan	Develop a lesson plan appropriate to the objectives and teaching learning method	60 minutes	Use examples from UG/PG courses
10:00	Tea Break		15 minutes	
10.15	Assessment of clinical and practical skills	- Assess skills effectively - Assess skills at the workplace - Use a skill lab to assess competency in skills - Design a skill assessment station	120 minutes	Discuss methods, demonstrate few like OSCE/OSPE, DOPS other WPBA
12.15	Academic growth & networking	- Understand avenues for growth in education - Role of MEU and role of faculty in MEU - Opportunities for further courses - Networking in education	45 minutes	
13:00	Lunch		45 min	
13:45	Aligning assessment to competency and TLMs	Choose the right assessment method for a given objective/ competency and TLM	60 minutes	Use examples of competencies from 4 phases, 15 min group work for selecting methods for provided competencies, 8 min per group for sharing
14:45	Tea Break			
15:00	Mentoring	- Understand principles of mentoring - Apply these principles in UG/PG curricula	60 min	
16:00-16:45	Drafting schedule for a phase based on competencies	An understand steps in drafting time table for an academic year	45 min	Use examples, how to add AETCOM, AIT, Pandemic etc Use UG/PG curriculum examples as needed
16:45	Post-test Retropre feedback			Pre, post-test to be developed by institute conducting BCME, Retropre as per provided doc
17:00	Closing			

Use examples from UG/PG curriculum as needed and use examples from PG curriculum for standalone PG institutes.

Name of Medical College & Address:

Name & contact details of Principal / Dean:

Name of the RC / NC allocated for FDP:

DETAILS OF MEDICAL EDUCATION UNIT

S.No.	Name	Designation Department,	Mobile & email id	Attended rBCW/BCME at NC/RC/MC (dates, center)			Additional qualification as per NMC (ACME/ FAIMER etc.)	Attended CISP I/II/III	Knowledge/expertise in Medical Education
				Attended y / N, from where	From	To			
	Dr. ABC	Principal							
		Chairman							
		MEU Coordinator							
	Members								
1									
2									
3									
4									

5									
6									
7									
8									

Total number of members in Medical Education Unit except coordinator and Principal:	
Total numbers who have attended: rBCW:	CISPI/I/II/III: Additional qualification:
Whether MEU coordinator has done rBCW at NC/RC: Yes/No if NO: Name of college where done:	

Signature of Principal/Dean with date

Name of Medical College & address:

Name & contact details of Principal/ Dean:

Name of the RC / NC allocated for FDP :

DETAIL OF CURRICULUM COMMITTEE (CC) MEMBERS

Sr. No.	Name of CC member	Designation & Department of CC Members	Teacher ID	Mobile & E-mail ID	Date of appointment as Prof / Assoc Prof/ Asst Prof (as applicable)	rBCW/BCME (attended at & date)	CISP (attended at, & date)	ACME/other advanced courses as per guidelines (attended at, date)
1		Principal / Dean & Chairman, Professor,						
2		Designation Department of ----- (Pre-clinical Specialty)						
3		Designation, Department of----- (Para-clinical Specialty)						
4		Designation, Department of -- (Medical Specialty)						

5		Designation, Department of (Surgical Specialty)						
6		Assistant Prof# Department of ---- ----- (Medical Specialty)						
7		Assistant Prof # Department of -- ----- (Surgical Specialty)						
8		MEU Coordinator, Designation, Department of						
9		Student Rep	-NA-		-NA-	-NA-	-NA-	-NA-

Assistant Prof must have 5 or more years of teaching experience.

Number of CC members who have done rBCW/BCME:

Number of CC members who have done CISP I / II / III :

Number of CC members who have additional qualifications (ACME/ FAIMER etc.):

Signature of Principal/Dean with date

Name of Medical College & address:

Name & contact details of Principal / Dean:

Name of the RC / NC allocated for BCME:

Name of Convener/ Co-Convener/ NMC appointed Coordinator::

Proposed Dates of BCME:

MAIN LIST OF PARTICIPANTS FOR (BCME)

[illegible]

WAIT LIST OF PARTICIPANTS FOR (BCME)

[illegible]

(Signature of Dean/ Principal)

(Signature of Convener/ Co-Convener/ MEU Coordinator)

Name of Medical College & address:

Name & contact details of Principal / Dean:

Name of the RC / NC allocated for CISP III:

Name of Convener/ Co-Convener/ NMC appointed Coordinator::

Proposed Dates:

MAIN LIST OF PARTICIPANTS FOR (CISP III)

[illegible]

WAIT LIST OF PARTICIPANTS FOR (CISP III)

[illegible]

(Signature of Dean/ Principal)

(Signature of Convener/ Co-Convener/ MEU Coordinator)

GUIDELINES FOR NMC APPOINTED COORDINATOR

Coordinator has a Facilitator's role in the conduct of FDP, hence the Coordinator should;

1. Contact the college/ Institute at least a week before the actual workshop and discuss/review the program and its logistics.
2. Be present in all sessions.
3. Verify the particulars of the participants from the proposal list forwarded to Academic cell. The names of absentees or those missing the sessions shall be communicated in the report.
4. Ensure that the FDP is conducted as per NMC approved program.
5. Ensure that only the approved faculty is taking sessions.
6. At the end of each session of FDP, provide 5 min summary. Feedback on conduct of session may also be provided, if needed.
7. Ensure Institute has designed Pre and post-test before the conduct of the actual workshop and Participants' Feedback form are also ready beforehand.
8. Review MEU infrastructure as per NMC guidelines and provide your comments in the report.
9. Review and confirm the action taken by the college on any points that were highlighted for correction/ implementation by Observer's in any of the previous workshops held at the college.

Convener / NMC appointed Coordinator Report - BCME

.....Name of NC / RC

I. Basic Course in Medical Education workshop details:

1. Name of Medical College, city where workshop was held:
2. Dates of workshop:
3. Name, designation, address, Email ID & mobile number of MEU Coordinator:
4. Name, designation, address, email & mobile no. of Convener / NMC Coordinator:

II. Details of Participants

Total no. of participants who attended:
(attach list in NMC format)

Designation-wise distribution of participants in this BCME:

Sr. No.	Cadre	Number
1	Professor	
2	Additional Professor	
3	Associate Professor	
4.	Assistant Professor	

- Number of Curriculum Committee members in participants, if any:
- Number of MEU members in participants, if any:
- Number (Percentage) of faculty of college trained in this BCME (denominator total college faculty)

	Designation wise				Department wise		
	Prof.	Additional Prof	Associate Prof.	Assistant Prof.	Pre-clinical sciences	Para-clinical sciences	Clinical sciences
Number							
Percentage							

III. Workshop evaluation by NMC Coordinator

a. Evaluation of Speakers (on a scale of 1-5; 5 being excellent and 1 being below average)

While evaluating please consider quality of presentations, interaction with the participants, time management, appropriate use of learning aids, effectiveness of presentation etc.

Sr. No.	Name of the Faculty	Topic	Scale				
1		Introduction and Group Dynamics	1	2	3	4	5
2		Learning process, Learning domains & Principles of learning	1	2	3	4	5
3		Goals, roles and Competencies, Learning objectives (LO) in CBME	1	2	3	4	5
4		Teaching learning methods (TLM): including Interactive Large Group, Small Group methods	1	2	3	4	5
5		Introduction to assessment	1	2	3	4	5
6		Internal assessment (IA) and Formative assessment	1	2	3	4	5
7		AETCOM: Concept and conduct	1	2	3	4	5
8		SDL: Concept and conduct	1	2	3	4	5
9		Aligning TLMs for objectives and competencies	1	2	3	4	5
10		Assessment planning, Writing the correct essay question and MCQs	1	2	3	4	5
11		Drafting schedule for a phase based on competencies	1	2	3	4	5
12		Writing a lesson plan	1	2	3	4	5
13		Assessment of clinical and practical skills	1	2	3	4	5
14		Academic growth & networking	1	2	3	4	5
15		Aligning assessment to competency and TLMs	1	2	3	4	5
16		Mentoring	1	2	3	4	5

b. Evaluation of Participants (on a scale of 1-5, 5 being excellent and 1 being below average)

- | | | | | | | |
|---|---|---|---|---|---|---|
| 1. Punctuality | : | 1 | 2 | 3 | 4 | 5 |
| 2. Interactions in sessions | : | 1 | 2 | 3 | 4 | 5 |
| 3. Use of learning aids in group work presentations | : | 1 | 2 | 3 | 4 | 5 |
| 4. Enthusiasm | : | 1 | 2 | 3 | 4 | 5 |

c. Workshop as a whole

Mark the below-mentioned parameters on a scale of 1-5; 5 being excellent and 1 being below average.

- | | | | | | |
|---|---|---|---|---|---|
| 1. The pre-workshop administration | 1 | 2 | 3 | 4 | 5 |
| 2. The pre-workshop information provided to participants: | 1 | 2 | 3 | 4 | 5 |

3. The workshop facilities & location:	1 2 3 4 5
4. Learning resource material provided:	1 2 3 4 5
5. Quality of learning resource material provided:	1 2 3 4 5
6. Learning facilities including AV aids:	1 2 3 4 5
7. Time allocation for sessions:	1 2 3 4 5
8. Level of Participation:	1 2 3 4 5
9. Quality of sessions:	1 2 3 4 5
10. Learning environment:	1 2 3 4 5

IV. Feedback from the participants (to be collected by institute conducting the BCME and to provide to NMC Coordinator)

a. Important comments

List the important feedback comments received from the participants regarding the content and organization of the workshop:

b. Mean scores on the retro-pre assessment (by participants as per format attached)

Topic	Item	Mean pre-score	Mean post-score
Introduction and Group Dynamics	Knowledge		
	Importance		
Learning process, Learning domains & Principles of adult learning	Knowledge		
	Importance		
Goals, roles and Competencies, Learning objectives (LO) in CBME	Knowledge		
	Importance		
Teaching learning methods (TLM): including Interactive Large Group, Small Group methods	Knowledge		
	Importance		
Introduction to assessment	Knowledge		
	Importance		
Internal assessment (IA) and Formative assessment	Knowledge		
	Importance		
AETCOM: Concept and conduct	Knowledge		
	Importance		
SDL: Concept and conduct	Knowledge		
	Importance		
Aligning TLMs for objectives and competencies	Knowledge		
	Importance		
Assessment planning, Writing the correct essay question and MCQs	Knowledge		
	Importance		
Drafting schedule for a phase based on competencies	Knowledge		
	Importance		
Writing a lesson plan	Knowledge		
	Importance		
Assessment of clinical and practical skills	Knowledge		
	Importance		
Academic growth & networking	Knowledge		

	Importance		
Aligning assessment to competency and TLMs	Knowledge		
	Importance		
Mentoring	Knowledge		
	Importance		

V. Observations by Coordinator from Nodal/Regional Centre

Sr No	Registered Original participants	Replaced Participants with reasons (if any) as approved by NMC Coordinator (only participants from approved waiting list)
1.		

Short summary report:

Comment on:

(i) The conduct of the Revised Basic Course workshop including punctuality:

(ii) Quality of interaction between participants and Resource faculty:

(iii) Infrastructure:

(iii) Adverse comments, if any, on the conduct of the Workshop:

Suggestions/remedial measure to be implemented before next workshop: (to be shared with college MEU):

(Action taken report on these suggestions must be submitted when applying for approval for next course)

Date:

Signature and Name of NMC appointed Coordinator

Date:

Remarks and Counter-signature of Convener

Feedback form for participants - BCME

Date:

Institute name:

1. What was good about the sessions?
2. What could have been even better?
3. What would you change if you were to organize this workshop?

Retro-pre evaluation

Please enter score as per improvement in knowledge and your understanding of importance (on a scale of 1-5; 5 being excellent and 1 being below average)

Topic	Item	pre-score	post-score
Introductory session and Group Dynamics	Knowledge		
	Importance		
Learning process, Learning domains & Principles of adult learning	Knowledge		
	Importance		
Goals, roles and Competencies, Learning objectives (LO) in CBME	Knowledge		
	Importance		
Teaching learning methods (TLM): including Interactive Large Group, Small Group methods	Knowledge		
	Importance		
Introduction to assessment	Knowledge		
	Importance		
Internal assessment (IA) and Formative assessment	Knowledge		
	Importance		
AETCOM: Concept and conduct	Knowledge		
	Importance		
SDL: Concept and conduct	Knowledge		
	Importance		
Aligning TLMs for objectives and competencies	Knowledge		
	Importance		
Assessment planning, Writing the correct essay question and MCQs	Knowledge		
	Importance		
Drafting schedule for a phase based on competencies	Knowledge		
	Importance		
Writing a lesson plan	Knowledge		
	Importance		
Assessment of clinical and practical skills	Knowledge		
	Importance		
Academic growth & networking	Knowledge		
	Importance		
Aligning assessment to competency and TLMs	Knowledge		
	Importance		
Mentoring	Knowledge		
	Importance		

(Name & Signature of the participant)

GUIDELINES FOR CONDUCT OF CURRICULUM IMPLEMENTATION SUPPORT PROGRAM - 3 (CISP - III)

The Competency based Undergraduate Medical Education Curriculum mandates focused training of faculty on its content and nuances. As the students of CBME curriculum have entered their clinical phases, the CISP is required to take care of training of additional clinical faculty for better implementation of Competency Based Medical Education (CBME). The following guidelines are issued to conduct CISP for NC/RC and allocated Colleges:

1. The program for two-day CISP Workshop conducted by Nodal Centers (NC)/ Regional Centers (RC) or medical colleges is attached as **Annexure 12**.
2. It is compulsory for Curriculum Committee members and members of Medical Education Department/Unit to attend CISP at NC/RC, if they have not attended CISP I or II. The medical college faculty who have attended CISP I/II need not undergo CISP III now.
3. Each Nodal and Regional Centre shall conduct a maximum of 03 CISP Workshops for teaching faculty of allocated colleges at the RC/NC and 1-2 CISP Workshops in-house for their own college faculty. Medical Colleges shall conduct CISP workshop under Coordinator-ship of NC/RC, as per need.
4. The participants shall be full time teaching faculty as per NMC norms of colleges.
5. The participants will be considered on Duty Leave during the period of workshop.
6. For CISP at NC/RC, the participants from allocated colleges shall be a team of three and will include;
 - a) Principal/Dean,
 - b) MEU coordinator (if not trained in CISP I or II) and
 - c) Curriculum Committee members from medical/surgical sciences (if not trained in CISP I or II).

If these are already trained, then HOD of major clinical subject of phase 3 part 2 shall be included. Therefore, per college 3 participants will attend the CISP III mandatorily.

7. **For CISP - III at Medical colleges, the resource faculty shall be their CISP trained Curriculum Committee members and team of above three trained faculties.**

-
8. The CISP at medical colleges shall be conducted under the supervision of NMC appointed Coordinator from NC/RC, who shall be of Associate Professor or above rank. They will adhere to the guidelines as enumerated in **Annexure 8**.
 9. The proposal of CISP must reach Academic Cell UGMEB at least 3 weeks prior to the proposed dates. Details of MEU and Curriculum Committee should be attached with the proposal.
 10. Upto 03 additional names of participants can be included as waiting list in the proposal for approval. Change in participant names should be avoided. Any last minute change(s) in participants list, must have valid reason. The substitution(s) is only permitted from the already approved 03 wait-listed participants. These changes are to be communicated to Academic cell on or before 1st day of CISP program by email. Any deviation from this shall make participation by substitution faculty as invalid.
 11. **If, any last-minute change(s) / absence of participants leads to decrease in participant strength to less than 25, the said CISP shall stand CANCELLED. The same shall be intimated to Academic cell immediately.**
 12. Participation in CISP shall be counted against entitlement for a Zonal / National Conference.
 13. Expenses to conduct these workshops in colleges shall be made available to the MEU Coordinator by the Head of the Institution/Medical College.
 14. Format of Convener/ Co-Convener's and NMC appointed Coordinator's Report of CISP's attached as **Annexure 13 and 14** respectively, as the case may be.
 15. Feedback report from participants should be submitted in the format attached as **Annexure 15**.
 16. **Issuance of Certificates:**
 - a) Certificates shall ONLY be printed by the Nodal/ Regional Centre as per approved format. The format shall be shared with NC / RC separately.
 - b) The Certificate of Participation shall be given by the Nodal/Regional Centre Conveners/MEU coordinator to only those participants who have attended all the sessions throughout the Workshop.

NMC CURRICULUM IMPLEMENTATION SUPPORT PROGRAM (CISP) - III**[02 Days Program]**

Day 1				
Time	Session	Objectives	Duration	Faculty
8.45- 9.00	Pre-Test		15 minutes	
9:00-9:30	Registration, inauguration, Introductory Session	Introduction of participants and faculty	30 min	
9:30-10:30	Competency based medical education (CBME)	Definition of competency, Difference between competency, objectives & outcomes (with examples); introduction to CBME, salient differences from conventional model IMG: Goals, roles & Competencies	60 min	
10:30-11:00	Tea			
11:00-11:45	Graduate Medical Education Regulations (GMER) 2019 / new regulations	Time frame, training methods, integration, assessment, new additions like Foundation Course, formative feedback	45 min	
11:45-13:00	Alignment and Integration	Concept, framework (using examples from competency table)	105 minutes	
13:30	Lunch			
14:15-15:15	Electives	Concept of Electives	60 min	
15:15	Tea		Tea	
15:30-16:00	Early Clinical Exposure	Concept, components, timeframe & examples	30 min	ECE only 30 min
16:00-17:00	AETCOM module	Purpose, mission and objectives, booklet review	60 min	

Day 2				
Time	Session	Objectives	Duration	Faculty
9:00-9.45	Student Doctor method of Clinical Teaching	Concept, framework & group activity	45 min	
9:45- 10:30	Skills training	Competency acquisition, Skills lab: group activity Prescription Skills	105 min	
10:30 - 10:45	Tea			
10:45-11:45	Skills training	Contd....		
11:45-13:15	Assessment in CBME	Principles as relevant to CBME, assessment methods e.g. OSCE/OSPE, feedback	90 minutes	
13:15	Lunch			
14: 00 – 15:00	Drafting teaching schedule and assessment plan for a subject	Drafting schedule competency wise for lectures, SGD, clinical postings. Drafting assessment schedule	60 min	
15:00-15:15		Tea		
15:15-16:15	Record maintenance-Log book and clinical case records	Group activity	60 min	
16:15- 16:45	Curricular governance	Presentation & discussion	30 min	
16:45-17:00	Feedback and Open House		15 min	
17:00 – 17:15	Valedictory / Post test		15 min	

CONVENER'S REPORT**Curriculum Implementation Support Program-III**

.....(Name of NC/RC)

.....(Name of college)

Date of CISP III workshop:

A. TOTAL PARTICIPANTS REGISTERED:**B. TOTAL PARTICIPANTS ATTENDED:****C. COLLEGE-WISE DISTRIBUTION OF PARTICIPANTS (attended):**

Sr. No.	Name of Institute	Number of participants
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
	Total	30

D. CADRE-WISE DISTRIBUTION OF PARTICIPANTS

Sr. No.	Cadre	Number
1	Professor	
2	Additional Professor	
3	Associate Professor	

4.	Assistant Professor	
----	---------------------	--

E. Number (Percentage) of faculty of allocated colleges trained in this CISP-III workshop

	Designation-wise				Speciality-wise			
	Prof.	Additional Prof	Associate Prof.	Assistant Prof.	Pre-clinical sciences	Para-clinical sciences	Medical sciences	Surgical sciences
Number								
Percentage								

F. CONVENER'S OBSERVATIONS, COMMENTS & SUGGESTIONS:

No.	Registered Original Participants	Replaced Participants (if any)
1		

G. EVALUATION OF THE COURSE:

1. Feedback from the participants

a. Important comments

b. Mean scores on the retro-pre assessment (by participants as per format attached:

Topic	Item	Mean score pre-	Mean post-score
Introductory Session	Knowledge		
	Importance		
Competency based medical education (CBME)	Knowledge		
	Importance		
Graduate Medical Education Regulations (GMER) 2019	Knowledge		
	Importance		
Alignment & integration	Knowledge		
	Importance		
Electives	Knowledge		
	Importance		
Early Clinical Exposure	Knowledge		
	Importance		
AETCOM module	Knowledge		
	Importance		
Student Doctor Method of Clinical Teaching	Knowledge		
	Importance		

Skills training	Knowledge		
	Importance		
Assessment in CBME	Knowledge		
	Importance		
Drafting teaching schedule and assessment plan for a subject	Knowledge		
	Importance		
Record maintenance-Log book and clinical case records	Knowledge		
	Importance		
Curricular governance	Knowledge		
	Importance		

2) Learning: Pre and Post-test analysis:

ANNEXURES: Include the following annexures with the Convener's report (one copy each) to be sent by E-mail to academic cell.

1. Copy of sanction letter from NMC
2. CISP III program schedule
3. List of participants (as per format)
4. List of resource persons
5. Convener's report
6. Group photo(optional)

Signature of Co-convener in-charge of the CISP - III with date:

Signature of Convener with date:

NMC appointed Coordinator Report-CISP III

.....Name of NC / RC

I. CISP III WORKSHOP DETAILS

1. Name of Medical College, city where workshop was held:
2. Date of workshop:
3. Name, Designation, address, Email ID& mobile no. of MEU Coordinator:
4. Name, Designation, address, email id & mobile no. of R.C/N.C. Coordinator:

II. Details of Participants

Total no. of participants who attended:

(attach list in NMC format)

Designation of faculty participants:

- No. of Professors -
- No. of Additional Professors -
- No. of Associate Professors -
- No. of Assistant Professors –
- Curriculum Committee members -
- MEU faculty –

(i) Number (Percentage) of faculty of college trained in this CISP III workshop

	Designation-wise				Department-wise			
	Prof.	Additional Prof	Associate Prof.	Assistant Prof.	Pre-clinical sciences	Para-clinical sciences	Medical sciences	Surgical sciences
Number								
Percentage								

(ii) Number (Percentage) of faculty of entire college trained till this workshop in CISP I, II, III

	Designation-wise				Department-wise			
	Prof.	Additional	Associate Prof.	Assistant Prof.	Pre-clinical	Para-clinical sciences	Medical sciences	Surgical sciences

		Prof.			sciences			
Number								
Percentage								

III. Workshop Evaluation by Convener/N.C.-R.C. Coordinator

a. Evaluation of Speakers (on a scale of 1-5; 5 being excellent and 1 being below average)

In evaluating please consider quality of presentations, interaction with the participants, time management, appropriate use of learning aids, effectiveness of presentation etc.

Sr. No.	Name of the Faculty	Topic	Scale
1		Icebreaking	1 2 3 4 5
2		Competency Based Medical Education(CBME)	1 2 3 4 5
3		Graduate Medical Education Regulations (GMER)2019 / new regulations	1 2 3 4 5
4		Alignment & integration	1 2 3 4 5
5		Electives	1 2 3 4 5
6		Early Clinical Exposure (ECE)	1 2 3 4 5
7		AETCOM module	1 2 3 4 5
8		Student Doctor Method of Clinical Teaching	1 2 3 4 5
9		Skills training	1 2 3 4 5
10		Assessment in CBME	1 2 3 4 5
11		Drafting teaching schedule and assessment plan for a subject	1 2 3 4 5
12		Record maintenance-Log book and clinical case records	1 2 3 4 5
13		Curricular governance	1 2 3 4 5

b. Evaluation of Participants (on a scale of 1-5, 5 being excellent and 1 being below average)

- | | | |
|---|---|-----------|
| 1. Punctuality | : | 1 2 3 4 5 |
| 2. Interactions in sessions | : | 1 2 3 4 5 |
| 3. Use of learning aids in group work presentations | : | 1 2 3 4 5 |
| 4. Enthusiasm | : | 1 2 3 4 5 |
| 5. Quality of interaction | : | 1 2 3 4 5 |

c. Workshop as a whole

Mark the below-mentioned parameters on a scale of 1-5; 5 being excellent and 1 being below average.

- | | | | | | |
|---|---|---|---|---|---|
| 1. The pre-workshop administration: | 1 | 2 | 3 | 4 | 5 |
| 2. The pre-workshop information provided to participants: | 1 | 2 | 3 | 4 | 5 |
| 3. The workshop facilities & location: | 1 | 2 | 3 | 4 | 5 |
| 4. Learning resource material provided: | 1 | 2 | 3 | 4 | 5 |
| 5. Quality of learning resource material provided: | 1 | 2 | 3 | 4 | 5 |
| 6. Learning facilities including AV aids: | 1 | 2 | 3 | 4 | 5 |
| 7. Time allocation for sessions: | 1 | 2 | 3 | 4 | 5 |
| 8. Level of Participation: | 1 | 2 | 3 | 4 | 5 |
| 9. Quality of sessions: | 1 | 2 | 3 | 4 | 5 |
| 10. Learning environment: | 1 | 2 | 3 | 4 | 5 |

IV. Feedback from the participants

a. Important comments

b. Mean scores on the retro-pre assessment (by participants as per format attached)

Topic	Item	Mean pre-score	Mean post-score
Introductory session	Knowledge		
	Importance		
Competency based medical education (CBME)	Knowledge		
	Importance		
Graduate Medical Education Regulations(GMER)2019/ regulations new	Knowledge		
	Importance		
Alignment & integration	Knowledge		
	Importance		
Electives	Knowledge		
	Importance		
Early Clinical Exposure	Knowledge		
	Importance		
AETCOM module	Knowledge		
	Importance		
Student Doctor Method of Clinical Teaching	Knowledge		
	Importance		
Skills training	Knowledge		
	Importance		
Assessment in CBME	Knowledge		
	Importance		
Drafting teaching schedule and assessment plan for a subject	Knowledge		
	Importance		

V.	Record maintenance-Log book and clinical case records	Knowledge		
		Importance		
	Curricular governance	Knowledge		
		Importance		

Observations by Coordinator

S. No	Registered Original participants	Replaced Participants (if any), with valid reason, as approved by NMC Coordinator

Short summary report:

Comment particularly on the conduct of CISP III, quality of interaction between participants and Resource faculty and any remedial changes to be used hereafter.

Date:

Signature & Name of NMC appointed Coordinator

Date:

Remarks and Counter-signature of Convener

Feedback form for participants-CISP III

Date:

Institute name:

1. What was good about the sessions?

2. What could have been even better?

3. What would you change if you were to organize this workshop?

Retro-pre evaluation

Please enter score as per improvement in knowledge and your understanding of importance (on a scale of 1-5; 5 being excellent and 1 being below average)

Topic	Item	pre-score	post-score
Introductory session	Knowledge		
	Importance		
Competency based medical education (CBME)	Knowledge		
	Importance		
Graduate Medical Education Regulations (GMER) 2019/ New regulation	Knowledge		
	Importance		
Alignment & integration	Knowledge		
	Importance		
Electives	Knowledge		
	Importance		
Early Clinical Exposure	Knowledge		
	Importance		
AETCOM module	Knowledge		
	Importance		
Student Doctor Method of Clinical Teaching	Knowledge		
	Importance		
Skills training	Knowledge		
	Importance		
Assessment in CBME	Knowledge		
	Importance		
Drafting teaching schedule and assessment plan for a subject	Knowledge		
	Importance		
Record maintenance-Log book and clinical case records	Knowledge		
	Importance		
Curricular governance	Knowledge		
	Importance		

(Name & Signature of the participant)

राष्ट्रीय आयुर्विज्ञान आयोग
National Medical Commission
Academic Cell

D 11011/377/2023/Academic Cell

Date: 06.04.2023

CIRCULAR

Subject: Re-allocation of the Medical Colleges including PG Institutes to Nodal/Regional Centres for the purpose of BCME & CISP and re-allocation of Regional Centres to Nodal Centres for ACME – reg.

At present 636 (six hundred thirty-six) Medical Colleges and 66 (sixty-six) Standalone PG Institutes are placed under twelve (12) Nodal Centers and twenty-three (23) Regional Centers for the purpose of various Faculty Development Programs (FDPs) viz. Basic Course in Medical Education (BCME), Curriculum Implementation Support Program (CISP) and Advance Course in Medical Education (ACME).

2. Since last allocation of the Medical Colleges, a number of new Medical Colleges have been opened. Further recently we have upgraded two (02) Regional Centres to the status of Nodal Centres and three (03) Medical Colleges have been accorded the status of Regional Centres for the purpose of FDPs. In view of augmentation in the number of Medical Colleges, Nodal Centres as well as Regional Centres, it has become necessary to do this re-allocation for the various Faculty Development Programs (FDPs).

3. Accordingly, based on feedback from environment, geographical proximity and the number of colleges assigned/workload, the competent authority has approved the re-allocation of all the Medical Colleges as per **Annexure 'A'** of the Circular. Similarly re-allocation of Standalone PG Institutes to Nodal/Regional Centres for the purpose of BCME has been approved as per **Annexure 'B'** of the Circular. Further allocation of Regional Centres to the Nodal Centres for the purpose of ACME has also been approved as per **Annexure 'C'** of the Circular.

4. This re-allotment of Medical Colleges, Standalone PG Institutes and Regional Centres will come into force from the date of issue of this order.


6/4/2023
(Shambhu Sharan Kumar)
Director, UGMEB
National Medical Commission

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NODAL CENTER: CMC, LUDHIANA-141008, PUNJAB, INDIA

NAME OF THE COLLEGES
GOVERNMENT MEDICAL COLLEGE & HOSPITAL, CHANDIGARH-160030
ADESH INSTITUTE. OF MEDICAL SCIENCES, & RESEARCH, BHATINDA – 151 009 (PUNJAB)
DAYANAND MEDICAL COLLEGE LUDHIANA-141001 PUNJAB
GOVT. MEDICAL COLLEGE AMRITSAR-143001(PUNJAB)
GOVT. MEDICAL COLLEGE, PATIALA-147001 (PUNJAB)
GURU GOBIND SINGH MEDICAL COLLEGE, SADIQ ROAD, FARIDKOT-151203 (PUNJAB)
SH. GURU RAM DAS INSTITUTE OF MEDICAL SCIENCES & RESEARCH, AMRITSAR-143001(PUNJAB)
PUNJAB INSTITUTE OF MEDICAL SCIENCES, JALANDHAR - 144006, PUNJAB
GIAN SAGAR MEDICAL COLLEGE, RAJPURA, PUNJAB-140401
DR. B.R. AMBEDKAR STATE INSTITUTE OF MEDICAL SCIENCES, MOHALI, PUNJAB.
J & K SHER-E-KASHMIR INSTITUTE OF MEDICAL SCIENCES, SOURA, SRINAGAR-190011
GOVERNMENT MEDICAL COLLEGE, KARAN NAGAR, SRINAGAR-190010
ACHARYA SHRI CHANDER CHINAR COLLEGE OF MEDICAL SCIENCES & HOSPITAL, SIDHRA, JAMMU - 180 017.
GOVT. MEDICAL COLLEGE, BAKSHINAGAR, JAMMU-180001
GOVERNMENT MEDICAL COLLEGE NH-1A, NEAR KALIBARI KATHUA, JAMMU & KASHMIR
INDIRA GANDHI MEDICAL COLLEGE, SHIMLA – 171001, HIMACHAL PRADESH
MAHARISHI MARKANDESHWAR MEDICAL COLLEGE & HOPITAL, SOLAN, HIMACHAL PRADESH

NODAL CENTRE: GMC, KOTTAYAM, KERALA

NAME OF THE COLLEGES
AMRITA INSTITUTE OF MEDICAL SCIENCES, KOCHI - 682041 KERALA
GOVERNMENT MEDICAL COLLEGE, THIRUVANANTHAPURAM -695011, KERALA
AZEEZIA INSTITUTE OF MEDICAL SCIENCES & RESEARCH, MEEYANNOOR P.O. KOLLAM – 691 537 KERALA
DR. SOMERVEL MEMORIAL CSI HOSPITAL & MEDICAL COLLEGE, THIRUVANANTHAPURAM – 695 504 KERALA
SREE GOKULAM MEDICAL COLLEGE & RESEARCH FOUNDATION, THIRUVANANTHAPURAM - 695 607, KERALA
SREE UTHRADOM THIURNAL ACADEMY OF MEDICAL SCIENCES, THIRUVANTHAPURAM – 695028, KERALA
GOVT. T D MEDICAL COLLEGE, VANDANAM, ALAPPUZHA– 688 005; KERALA
GOVERNMENT MEDICAL COLLEGE, HMT COLONY, P.O. KALAMASSERY, KOCHI – 683 503, KERALA
MALANKARA OTHODOX & SYRIAN CHURCH MEDICAL COLLEGE, KOCHI – 682311, KERALA
PUSHPAGIRI INSTITUTE OF MEDICAL SCIENCES AND RESEARCH CENTRE, THIRUVALLA – 689101, KERALA
SREE NARAYANA INSTITUTE OF MEDICAL SCIENCES, ERNAKULAM – 683594, KERALA
TRAVANCORE MEDICAL COLLEGE MEDICITY MEDICAL COLLEGE, UMAYANALLOR KOLLAM – 691589 KERALA
MOUNT ZION MEDICAL COLLGE, CHAYALODE, ADOOR, KERALA-691556
AL AZHAR MEDICAL COLLEGE, EZHALLOOR P.O. THODUPUZHA, KERALA 685605
GOVERNMENT MEDICAL COLLEGE, PARIPALLY, KOLLAM – 691574 (KERALA)
BELIEVERS CHURCH MEDICAL COLLEGE HOSPITAL, THIRUVALLA, PATHANAMTHITTA – 689103, KERALA
AMALA INSTITUTE OF MEDICAL SCIENCES, AMALA NAGAR, THRISSUR – 680 555, KERALA
GOVERNMENT MEDICAL COLLEGE, P.O. MEDICAL COLLEGE, THRISSUR– 680 596, KERALA
JUBILEE MISSION MEDICAL COLLEGE & RESEARCH INSTITUTE, THRISSUR – 680 005, KERALA
SREE MOOKAMBIKA INSTITUTE OF MEDICAL SCIENCES, TAMIL NADU - 629 161.
KANYAKUMARI GOVERNMENT MEDICAL COLLEGE, ASARIPALLAM, NAGARCOIL, KANYAKUMARI– 629 201; TAMIL NADU
GOVERNMENT MEDICAL COLLEGE, 643, ANAKUTHI, KONNI, PATHANAMTHITTA – 689691, KERALA
GOVERNMENT MEDICAL COLLEGE, 456, IDUKKI COLONY, CHERUTHONY – 685602, KERALA

NODAL CENTRE: JIPMER, PUDUCHERRY

NAME OF THE COLLEGES
AARUPADAIVEEDU MEDICAL COLLEGE & HOSPITAL, KIRUMAMBAKKAM, PUDUCHERRY -607403
VINAYAKA MISSION'S MEDICAL COLLEGE, KEEZHAKASAKUDIMEDU, KARAİKAL -609609, PUDUCHERRY
MAHATMA GANDHI MEDICAL COLLEGE & RESEARCH INSTITUTE, PONDY-CUDDALORE, MAIN ROAD, PILLAIYARKUPPAM, PONDICHERRY-607402
PONDICHERRY INSTITUTE OF MEDICAL SCIENCES, GANAPATHYCHETTİKULAM, KALAPET, PONDICHERRY -605014
SRI LAKSHMI NARAYANA INSTITUTE. OF MEDICAL SCIENCES, USUDU, VILLANURCOMMUNIE, PUDUCHERRY-605502
SRI MANAKULAVINAYAGAR MEDICAL COLLEGE AND HOSPITAL, MADAGADIPET, PUDUCHERRY – 605 107.
SRI VENKATESHWARAA MEDICAL COLLEGE& RESEARCH CENTRE, ARIYUR, PUDUCHERRY-605102.
INDIRA GANDHI MEDICAL COLLEGE & RESEARCH INSTITUTE,PUDUCHERRY, KATHIRKAMAM, PUDUCHERRY – 605009
GOVERNMENT MEDICAL COLLEGE AND HOSPITAL, CUDDALORE DISTRICT CHIDAMBARAM, ANNAMALAINAGAR, TAMIL NADU - 608002
DHANALAKSHMI SRINIVASAN MEDICAL COLLEGE &HOSPITAL, PERAMBALUR DISTRICT, 621113, TAMIL NADU
GOVERNMENT THIRUVANNAMALAI MEDICAL COLLEGE & HOSPITAL THIRUVANNAMALAI– 602001, TAMIL NADU
VILLUPURAMGOVERNEMENT MEDICAL COLLEGE, MUNDIYAMPAKKAM, VILLUPURAM, TAMIL NADU
GOVERNMENT MEDICAL COLLEGE, KALLAKURICHI, TAMIL NADU 606213
GOVERNMENT MEDICAL COLLEGE, NAGAPATTINAM, TAMIL NADU
GOVERNMENT MEDICAL COLLEGE, ARIYALUR, TAMIL NADU
K.A.P.VISWANATHAM GOVERNMENT MEDICAL COLLEGE PERIYAMILAGUPARAI, TRICHY, TAMIL NADU – 620001
TRICHY SRM MEDICAL COLLEGE HOSPITAL & RESEARCH CENTER, TIRUCHIRAPALLI – 621105, TAMIL NADU
THIRUVARUR GOVT. MEDICAL COLLEGE, THANDALAI, THIRUVARUR – 611104, TAMIL NADU
THANJAVUR MEDICAL COLLEGE, THANJAVUR – 613 004 TAMIL NADU
SRINIVASAN MEDICAL COLLEGE AND HOSPITAL, TIRUCHIRAPPALLI, TAMIL NADU

NODAL CENTRE: JNMC, BELGAUM

NAME OF THE COLLEGES
BELGAUM INSTITUTE OF MEDICAL SCIENCES, BELGAUM – 590 001; KARNATAKA
KRISHNA INSTITUTE OF MEDICAL SCIENCES, KARAD-415110; DISTT. SATARA, MAHARASHTRA
JJM MEDICAL COLLEGE, DAVANAGERE – 577 004, KARNATAKA
KARNATAKA INSTITUTE OF MEDICAL SCIENCES, HUBLI – 560 002 KARNATAKA
BHARATI VIDYAPEETH DEEMED UNIVERSITY MEDICAL COLLEGE & HOSPITAL, SANGLI (MAHARASHTRA)
GOVT. MEDICAL COLLEGE & HOSPITAL, MIRAJ DISTT.- SANGLI-416410, MAHARASHTRA.
S S INSTITUTE OF MEDICAL SCIENCES & RESEARCH CENTRE, NH – 4, BYPASS DAVANGERE – 577 005 KARNATAKA
S N MEDICAL COLLEGE, BAGALKOT NAVANAGAR, BAGALKOT- 587 102 KARNATAKA
SDM COLLEGE OF MEDICAL SCIENCES & HOSPITAL, KARNATAKA
PRAKASH INSTITUTE OF MEDICAL SCIENCES & RESEARCH, DIST. SANGLI – 415409 (MAHARASHTRA)
JAGADGURU GANGADHAR MAHASWAMIGALU MOORUSAVIRMATH MEDICAL HUBBALLI – 580028, KARNATAKA.
GADAG INSTITUTE OF MEDICAL SCIENCES, GADAG – 582103, KARNATAKA.
GOVERNMENT MEDICAL COLLEGE, SINDHUDURG MAHARASHTRA 416534
KARWAR INSTITUTE OF MEDICAL SCIENCES, KARWAR – 581301, KARNATAKA
GOA MEDICAL COLLEGE TISWADI, NORTH GOA, DISTT. GOA-403202.
GOVERNMENT MEDICAL COLLEGE, SATARA, M2R6+Q53, SADAR BAZAR, SATARA, MAHARASHTRA 415001
SINDHUDURG SHIKSHAN PRASARAK MANDAL (SSPM) MEDICAL MAHARASHTRA, INDIA
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SHIMOGA INSTITUTE OF MEDICAL SCIENCES SAGAR ROAD, SHIVAMOGGA – 577 201 KARNATAKA
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NODAL CENTRE: JAWAHARLAL NEHRU MC, SAWANGI, WARDHA

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DR. PANJABRAO ALIAS BHAUSAHEB DESHMUKH MEMORIAL MEDICAL COLLEGE, SHIVAJI NAGAR, AMRAVATI (VIDARBHA)-444603; MAHARASHTRA
SH. VASANTRAO NAIK GOVT. MEDICAL COLLEGE, YAVATMAL-445001; MAHARASHTRA
GOVT. MEDICAL COLLEGE, AKOLA-444001 (MS). MAHARASHTRA.
N.K.P. SALVE INSTITUTE OF MEDICAL SCIENCES, DIGDOH HILLS, HINGANA ROAD, NAGPUR-440019, MAHARASHTRA
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DATTA MEGHE MEDICAL COLLEGE, WANADONGARI, NAGPUR – 441110, MAHARASHTRA
CM MEDICAL COLLEGE, VILLAGE-KACHANDUR, DURG, CHHATTISGARH
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GOVERNMENT MEDICAL COLLEGE, MAHASAMUND - 493445, CHHATTISGARH
GOVERNMENT MEDICAL COLLEGE, KORBA – 495683 CHHATTISGARH

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NODAL CENTRE: KING GEORGE'S MEDICAL UNIVERSITY, LUCKNOW

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MAYO INSTITUTE OF MEDICAL SCIENCES, NH-28, MILE STOREN-22, LUCKNOW FAIZABAD ROAD, GADIA, BARABANKI-225 001 UP,
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CAREER INSTITUTE OF MEDICAL SCIENCES & HOSPITAL, LUCKNOW
PRASAD INSTITUTE OF MEDICAL SCIENCES, LUCKNOW VILL - SARAI SHAHJADI, BANTHRA, KANPUR ROAD, LUCKNOW - 226401
MAHAMAYA RAJKIYA ALLOPATHIC MEDICAL COLLEGE, AMBEDKARNAGAR, UTTAR PRADESH
RAJASHRI DASHRATH AUTONOMOUS STATE MEDICAL COLLEGE, AYODHYA, FAIZABAD (FORMERLY GOVERNMENT MEDICAL COLLEGE, FAIZABAD, UTTAR PRADESH)
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TS MISHRA MEDICAL COLLEGE & HOSPITAL, 463/1, VILLAGE-ANAURA, PARGANA- BIJNOR, AMAUSI, LUCKNOW-226008 (UTTAR PRADESH)
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AUTONOMOUS STATE MEDICAL COLLEGE, SIDDHARTH NAGAR
AUTONOMOUS STATE MEDICAL COLLEGE SOCIETY, FATEHPUR UTTAR PRADESH 212601
NARAINA MEDICAL COLLEGE & RESEARCH CENTRE KANPUR NAGAR, GANGAGANJ COLONY, PANKI, KANPUR, UTTAR PRADESH 208020
MAHARANI LAXMIBAI MEDICAL COLLEGE, KANPUR ROAD, BUNDELKHAND UNIVERSITY, JHANSI, UTTAR PRADESH 284001
RAJKIYA ALLOPATHIC MEDICAL COLLEGE, BAHRAICH, UP
HIND INSTITUTE OF MEDICAL SCIENCES, SITAPUR, UTTAR PRADESH

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NODAL CENTRE: NHL MUNICIPAL MEDICAL COLLEGE, AHMEDABAD

NAME OF THE COLLEGES
GEETANJALI MEDICAL COLLEGE AND HOSPITAL, UDAIPUR – 313001, RAJASTHAN
B.J. MEDICAL COLLEGE AHMEDABAD-380016, GUJARAT
AMC MET MEDICAL COLLEGE, AHMEDABAD - 380008, GUJARAT
GCS MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTRE, NARODA ROAD, AHMEDABAD-380025, GUJARAT
GMERS MEDICAL COLLEGE, GOTRI, VADODARA – 390021, GUJARAT
GMERS MEDICAL COLLEGE, SOLA, AHMEDABAD-380060, GUJARAT
GMERS MEDICAL COLLEGE, SECTOR-12, GANDHINAGAR-382016 GUJARAT
PACIFIC MEDICAL COLLEGE AND HOSPITAL, UDAIPUR-313001, RAJASTHAN
AMERICAN INTERNATIONAL INSTITUTE OF MEDICAL SCIENCES, BEDWAS, UDAIPUR - 313024, RAJASTHAN
DR. M.K.SHAH MEDICAL COLLEGE AND RESEARCH CENTRE, CHANDKHEDA, AHMEDABAD - 382424, GUJARAT
ANANTA INSTITUTE OF MEDICAL SCIENCES & RESEARCH CENTRE, RAJSAMAND, RAJASTHAN - 313202
ZYDUS MEDICAL COLLEGE AND HOSPITAL, DAHOD, GUJARAT - 389151
DR. N D DESAI FACULTY OF MEDICAL SCIENCES & RESEARCH, NADIAD -387001, GUJARAT
PACIFIC INSTITUTE OF MEDICAL SCIENCES, AMBUA ROAD, UDAIPUR-313015, RAJASTHAN
GOVERNMENT MEDICAL COLLEGE & ASSOCIATE GROUP OF HOSPITALS, HOSPITAL ROAD, NEW COLONY, DUNGARPUR, RAJASTHAN-314001
GOVERNMENT MEDICAL COLLEGE, CIVIL HOSPITAL CAMPUS SARDAR NAGAR, MORBI-363641, GUJARAT
GMERS MEDICAL COLLEGE, DHARPUR VILLAGE, PATAN – 384265, GUJARAT
GOVERNMENT MEDICAL COLLEGE, SHIVGANJ ROAD, SIROHI – 307001, RAJASTHAN
R.N.T. MEDICAL COLLEGE, COURT CHOWK, UDAIPUR - 313001, RAJASTHAN

NODAL CENTRE: PRAMUKHSHWAMI MEDICAL COLLEGE, KARAMSAD

NAME OF THE COLLEGES
GOVERNMENT MEDICAL COLLEGE & SHRI VINOBA BHAVE CIVIL HOSPITAL, SILVASSA, DADRA NAGAR HAVELI RENAMED AS NAMO MEDICAL EDUCATION & RESEARCH INSTITUTE,
GMERS MEDICAL COLLEGE VALSAD, CIVIL HOSPITAL CAMPUS, HALAR ROAD, NANAKWADA, VALSAD-396001 GUJARAT,
DR. KIRAN C. PATEL MEDICAL COLLEGE AND RESEARCH INSTITUTE, CIVIL HOSPITAL CAMPUS, BHARUCH, GUJARAT - 392001
GOVERNMENT MEDICAL COLLEGE, DISTRICT CIVIL HOSPITAL AREA, SAKRI ROAD, NANDURBAR – 425412
GOVERNMENT MEDICAL COLLEGE, NEAR S.T. STAND, DR. H.VAIDYA ROAD, KALANALA, BHAVNAGAR-364002.
SMT. B.K. SHAH MEDICAL INSTITUTE & RESEARCH CENTRE, PIPARIA, WAGHODIA, VADODARA – 391760
BARODA MEDICAL COLLEGE, VINOBA BHAVE RD, ANANDPURA, VADODARA, GUJARAT - 390001
GOVERNMENT MEDICAL COLLEGE, SURAT 5RHC+64C, OPP. INCOME TAX DEPARTMENT OFFICE, MAJURA GATE, SURAT, GUJARAT - 395001
SURAT MUNICIPAL INSTITUTE OF MEDICAL EDUCATION & RESEARCH OPP. BOMBAY MARKET, UMARWADA, MUGLISARAI, SURAT-395010
GMERS MEDICAL COLLEGE & HOSPITAL, SIPOR ROAD, KHARVAD MEDAN, VADNAGAR- 384355, GUJARAT
BANAS MEDICAL COLLEGE AND RESEARCH INSTITUTE, MORIYA, TALUKA BANASKANTHA, PALANPUR-385001 (GUJARAT)
PARUL INSTITUTE OF MEDICAL SCIENCES & RESEARCH, P.O. LIMDA, TAL. WAGHODIA, VADODARA – 391760, GUJARAT
GOVERNMENT MEDICAL COLLEGE, NAVSARI, VVF6+Q2V, GJ SH 182, KHAMBHLAV, GUJARAT -396403
GOVERNMENT MEDICAL COLLEGE, PANCHMAHAL GODHRA, RMCG+F8X, CHANCHOPA, GUJARAT - 389120 GUJARAT
GMERS MEDICAL COLLEGE, RAJPIPLA, SH 160, VADIA, RAJPIPLA - 393145, GUJARAT

NODAL CENTRE: SETH G S MEDICAL COLLEGE & KEM HOSPITAL, MUMBAI

NAME OF THE COLLEGES
MAHATMA GANDHI MISSION'S MEDICAL COLLEGE, SECTOR-1, KAMOTHE, NAVI MUMBAI - 410 209 MAHARASHTRA
RAJIV GANDHI MEDICAL COLLEGE AND CHHATRAPATI SHIVAJI MAHARAJ HOSPITAL, THANE BELAPUR ROAD,THANE-400605, MAHARASHTRA
TERNA MEDICAL COLLEGE & HOSPITAL SECTOR -12, PHASE -II, NERUL,NAVI MUMBAI-400706, MAHARASHTRA.
PADMASHREE DR. D.Y. PATIL MEDICAL COLLEGE, PLOT NO 2, SECTOR-5, NERUL, NAVI MUMBAI – 400706; (MAHARASHTRA)
GRANT GOVT MEDICAL COLLEGE, SIR J. J. HOSPITAL, J.J. HOSPITAL COMPOUND, BYCULLA, MUMBAI-400008 (MAHARASHTRA)
K.J. SOMAIYA MEDICAL COLLEGE & RESEARCH CENTRE, MUMBAI-400022, MAHARASHTRA
LOKMANYA TILAK MUNICIPAL MEDICAL COLLEGE, SION, MUMBAI – 400022, MAHARASHTRA
TOPIWALA NATIONAL MEDICAL COLLEGE & B.Y.L. NAIR CHARITABLE HOSPITAL, DR. A.L. NAIR ROAD,MUMBAI-400008, MAHARASHTRA
H. B. T. MEDICAL COLLEGE & DR. R. N. COOPER MUNICIPAL MEDICAL COLLEGE & GENERAL HOSPITAL, BHAKITVEDANT SWAMI MARG, JUHU,MUMBAI-400056, MAHARASHTRA
VEDANTAA INSTITUTE OF MEDICAL SCIENCES, VEDANTAA HOSPITAL & RESEARCH CENTRE, VILLAGE-SASVAND, AT & POST - DUNDALWADI, PIN-401606, TALUKA-DAHANU, DIST. PALGHAR – 401606, MAHARASHTRA.
D.Y. PATIL MEDICAL COLLEGE, KOLHAPUR CONSTITUENT UNIT OF D.Y. PATIL EDUCATION SOCIETY (DEEMED TO BE UNIVERSITY), KOLHAPUR-416006, MAHARASHTRA
RAJASHREE CHHATRAPATI SHAHU MAHARAJ GOVT. MEDICAL COLLEGE, KOLHAPUR - 41002, MAHARASHTRA
B.K.L. WALAWALKAR RURAL MEDICAL COLLEGE, TALUKA CHIPLUN, DIST. RATNAGIRI-415606, MAHARASHTRA
DR. N Y TASGAONKAR INSTITUTE OF MEDICAL SCIENCE, KARJAT, RAIGAD – 410201, MAHARASHTRA
GOVERNMENT MEDICAL COLLEGE, ALIBAG - 402209 , MAHARASHTRA
BHARATRATNA ATAL BIHARI VAJPAYEE MEDICAL COLLEGE, MANGALWAR PETH, PUNE – 411011, MAHARASHTRA
SYMBIOSIS MEDICAL COLLEGE FOR WOMEN, PUNE – 412115, MAHARASHTRA

NODAL CENTRE: SRMCRI, PORUR, CHENNAI

NAME OF THE COLLEGES
SREE BALAJI MEDICAL COLLEGE AND HOSPITAL, NO. 7, WORKS ROAD, CHROMEPET, CHENNAI – 600 044, TAMIL NADU
ACS MEDICAL COLLEGE AND HOSPITAL, POONAMALLE HIGH ROAD VELAPPANCHAVADI, CHENNAI – 600 077
SAVEETHA MEDICAL COLLEGE AND HOSPITAL, SAVEETHA NAGAR, THANDALAM, CHENNAI 602 105 TAMIL NADU
SRI MUTHUKUMARAN MEDICAL COLLEGE, HOSPITAL & RESEARCH INSTITUTE, KUNRATHUR RD, NEAR MANGADU, CHIKKARAYAPURAM, CHENNAI
MADHA MEDICAL COLLEGE AND RESEARCH INSTITUTE, KOVUR, CHENNAI – 600128, TAMIL NADU
ESIC MEDICAL COLLEGE & PGIMSR, K. K. NAGAR, CHENNAI – 600078, TAMIL NADU
SRM MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, SRM NAGAR, POTHERI, CHENGALPATTU – 603203, TAMIL NADU
ANDAMAN AND NICOBAR ISLANDS INSTITUTE OF MEDICAL SCIENCES, DHS ANNEXE BUILDING, ATLANTA POINT .PORT BLAIR-744104
TAGORE MEDICAL COLLEGE & HOSPITAL, RATHINAMANGALAM, MELAKKOTTAIYUR, CHENNAI – 600127, TAMIL NADU
PSP MEDICAL COLLEGE HOSPITAL AND RESEARCH INSTITUTE, PANRUTTI – 631604, TAMIL NADU
SRI BALAJI MEDICAL COLLEGE, HOSPITAL AND RESEARCH INSTITUTE, TIRUPATI AIRPORT RD, TIRUPATI – 517520, ANDHRA PRADESH
GOVERNMENT MEDICAL COLLEGE, THIRUVALLUR – 602001, TAMIL NADU
VELS MEDICAL COLLEGE & HOSPITAL, TIRUVALLUR – 601102, TAMIL NADU
INDIRA MEDICAL COLLEGE & HOSPITALS, THIRUVALLUR, PANDUR – 631203, TAMIL NADU
BHAARATH MEDICAL COLLEGE & HOSPITAL, SELAIYUR, CHENNAI – 600073, TAMIL NADU

NODAL CENTRE: CMC, VELLORE

NAME OF THE COLLEGES
GOVERNMENT MEDICAL COLLEGE, ANANTAPUR – 515001, ANDHRA PRADESH
P.E.S. INSTITUTE OF MEDICAL SCIENCES & RESEARCH, KUPPAM-517425, CHITTOOR DISTT. (ANDHRA PRADESH)
GOVERNMENT MEDICAL COLLEGE, KADAPA (RAJIV GANDHI INSTT. OF MEDICAL SCIENCES) PUTLAMPALLY, KADAPA – 516004, ANDHRA PRADESH
S.V. MEDICAL COLLEGE, TIRUPATI-517501, CHITTOOR DISTT. ANDHRA PRADESH.
FATHIMA INSTITUTE OF MEDICAL SCIENCES, MOHAMMADIYA EDUCATIONAL SOCIETY, RAMARAJUPALLY, PULIVENDULA ROAD, KADAPA – 516 003; ANDHRA PRADESH.
SRI DEVARAJ URS MEDICAL COLLEGE, NH 4, TAMAKA, KOLAR – 563 101 KARNATAKA
SVIMS, SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN, ALIPIRI ROAD, TIRUPATI-517501, ANDHRA PRADESH.
APOLLO INSTITUTE OF MEDICAL SCIENCES AND RESEARCH, MURAKKAMBATTU VILLAGE, CHITTOOR – 517127 ANDHRA PRADESH.
GOVERNMENT DHARMAPURI MEDICAL COLLEGE, SALEM MAINROAD DHARMAPURI-636701, TAMIL NADU.
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KASTURBA MEDICAL COLLEGE, MADHAV NAGAR, MANIPAL - 576104, UDUPI DISTRICT, KARNATAKA
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FAKHRUDDIN ALI AHMED MEDICAL COLLEGE, JOTIGAON, BARPETA, ASSAM-781301
SILCHAR MEDICAL COLLEGE & HOSPITAL, SILCHAR – 788014, DISTT. CACHAR, ASSAM
ASSAM MEDICAL COLLEGE DIBRUGARH - 686 002, (ASSAM)
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SWAMYVIVEKANANDHA MEDICAL COLLEGE HOSPITAL AND RESEARCH INSTITUTE, NAMAKKAL, TAMIL NADU
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TIRUNELVELI MEDICAL COLLEGE, TIRUNELVELI – 627 011 TAMIL NADU
GOVERNMENT MEDICAL COLLEGE AND ESI HOSPITAL, VARADHARAJAPURAM, SINGANALLUR, COIMBATORE, TAMIL NADU
KMCH INSTITUTE OF HEALTH SCIENCES AND RESEARCH, COIMBATORE – 641014, TAMIL NADU
PSG INSTITUTE OF MEDICAL SCIENCES & RESEARCH, PEELAMEDU, COIMBATORE – 641 004 TAMIL NADU
COIMBATORE MEDICAL COLLEGE, COIMBATORE– 641 014 TAMIL NADU
KARPAGAM FACULTY OF MEDICAL SCIENCES & RESEARCH, OTHAKKALMANDAPAM, COIMBATORE-641 032, TAMIL NADU
GOVERNMENT ERODE MEDICAL COLLEGE, PERUNDURAI SANATORIUM– 638 053, TAMIL NADU
GOVERNMENT MEDICAL COLLEGE, RAMANATHAPURAM, TAMIL NADU
GOVERNMENT MEDICAL COLLEGE, TIRUPPUR, TAMIL NADU
GOVERNMENT MEDICAL COLLEGE, VIRUDHUNAGAR, TAMIL NADU
GOVERNMENT MEDICAL COLLEGE, DINDIGUL, TAMIL NADU

REGIONAL CENTRE, MAULANA AZAD MEDICAL COLLEGE, NEW DELHI

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ATAL BIHARI VAJPAYI INSTITUTE OF MEDICAL SCIENCES & DR RML HOSPITAL, NEW DELHI-110 001
G S MEDICAL COLLEGE & HOSPITAL NH-24, PILKHUWA, DISTT HAPUR (UP) - 245304
GOVERNMENT INSTITUTE OF MEDICAL SCIENCES, GREATER NOIDA, GAUTAM BUDH NAGAR (UP) - 201310
HAMDARD INSTITUTE OF MEDICAL SCIENCES & RESEARCH, JAMIA HAMDARD HAMDARDNAGAR, NEW DELHI,
K D MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTRE, MATHURA DELHI ROAD, NH#2, AKBARPUR, MATHURA-281406 (UP)
L.L.R.M. MEDICAL COLLEGE MEERUT-250102, UTTAR PRADESH
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NORTH DELHI MUNICIPAL CORPORATION MEDICAL COLLEGE, HINDU RAO HOSPITAL, MALKA GANJ, DELHI – 110007
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S.N. MEDICAL COLLEGE AGRA-282002, UP.
SANTOSH MEDICAL COLLEGE, MAHARAJI EDUCATIONAL TRUST, SANTOSH NAGAR, PRATAP VIHAR, GHAZIABAD-201009, UP
SARASWATHI INSTITUTE OF MEDICAL SCIENCES, HAPUR-245304, UTTAR PRADESH
SCHOOL OF MEDICAL SCIENCES & RESEARCH, SHARDA UNIVERSITY, GREATER NOIDA – 201306, UTTAR PRADESH
NOIDA INTERNATIONAL INSTITUTE OF MEDICAL SCIENCES, GAUTAM BUDDHA NAGAR, NOIDA, UTTAR PRADESH
SUBHARATI MEDICAL COLLEGE, SUBHARATI PURAM, DELHI-HARDWAR BYPASS ROAD, MEERUT -250005, U.P.
UNIVERSITY COLLEGE OF MEDICAL SCIENCES & GTB HOSPITAL, DILSHAD GARDEN, NEW DELHI-110095
VARDHMAN MAHAVIR MEDICAL COLLEGE & SAFDARJUNG HOSPITAL, NEW DELHI – 110029
VENKATESHWARA INSTITUTE OF MEDICAL SCIENCES, NH-24, VENKATESHWARA NAGAR, NEAR RAJAPUR, GAJRAULA, (UP)-244236
DR BABA SAHEB AMBEDKAR MEDICAL COLLEGE, SECTOR-6, ROHINI (WEST), DELHI - 110085
GOVERNMENT MEDICAL COLLEGE, OLD BARI ROAD, DHOLPUR-328001, RAJASTHAN

REGIONAL CENTRE, MGMC, JAIPUR, RAJASTHAN

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DR. S.N. MEDICAL COLLEGE & ASSOCIATED GROUP OF HOSPITALS RESIDENCY ROAD, SHASTRI NAGAR, JODHPUR, RAJASTHAN
GOVERNMENT MEDICAL COLLEGE, BHILWARA- 311001, RAJASTHAN.
GOVERNMENT MEDICAL COLLEGE& ASSOCIATED HOSPITAL, BARMER- 344001, RAJASTHAN.
GOVT. MEDICAL COLLEGE, RANGBARI ROAD, KOTA-240009, RAJASTHAN
JHALAWAR MEDICAL COLLEGE, JHALAWAR – 326001, RAJASTHAN
SARDAR PATEL MEDICAL COLLEGE, BIKANER-334003(RAJASTHAN)
GOVERNMENT MEDICAL COLLEGE, PALI – 306401, RAJASTHAN.
PANDIT DEENDAYAL UPADHYAYA MEDICAL COLLEGE, CHURU-331001, RAJASTHAN
JAWAHARLAL NEHRU MEDICAL COLLEGE, AJMER-305001 (RAJASTHAN)
NATIONAL INSTITUTE OF MEDICAL SCIENCES & RESEARCH, SHOBHA NAGAR, JAIPUR- 303001, RAJASTHAN
S.M.S. MEDICAL COLLEGE, JAIPUR-302004 (RAJASTHAN)
GAJRA RAJA MEDICAL COLLEGE GWALIOR-474009, MADHYA PRADESH
JAIPUR NATIONAL UNIVERSITY INSTITUTE OF MEDICAL SCIENCES AND RESARCH CENTRE, JAGATPURA, JAIPUR, RAJASTHAN
GOVERNMENT MEDICAL COLLEGE, BHARATPUR-321000031, RAJASTHAN
EMPLOYEES STATE INSURANCE CORPORATION MEDICAL COLLEGE, ALWAR, RAJASTHAN
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STANLEY MEDICAL COLLEGE, CHENNAI- 600001 TAMIL NADU
GOVERNMENT MEDICAL COLLEGE, OMANDURAR GOVERNMENT ESTATE, CHENNAI – 600002, TAMIL NADU
CHETTINAD HOSPITAL & RESEARCH INSTITUTE, PADUR VILLAGE, DISTT. KANCHIPURAM- 603 103; TAMIL NADU
MEENAKSHI MEDICAL COLLEGE & RESEARCH INSTITUTE, ENATHUR, KANCHIPURAM – 631 552 TAMIL NADU
SHRI SATHYA SAI MEDICAL COLLEGE AND RESEARCH INSTITUTE, KANCHEEPURAM – 603 108 TAMIL NADU
KARPAGA VINAYAGA INSTITUTE OF MEDICAL SCIENCES & RESEARCH CENTRE, KANCHIPURAM – 603308, TAMIL NADU
CHENGALPATTU MEDICAL COLLEGE, CHENGALPATTU- 603 001, TAMIL NADU
MELMARUVATHUR ADIPARASAKTHI INSTITUTE OF MEDICAL SCIENCES, MELMARUVATHUR – 603319, TAMIL NADU
NARAYANA MEDICAL COLLEGE, CHINTHAREDDYPALEM, NELLORE-524003 ANDHRA PRADESH
ACSR GOVERNMENT MEDICAL COLLEGE, DARGAMITTA, NELLORE, ANDHRA PRADESH - 524004
FACULTY OF MEDICINE , SRI LALITHAMBIGAI MEDICAL COLLEGE AND HOSPITAL CHENNAI, TAMIL NADU
BHAARAT MEDICAL COLLEGE & HOSPITAL, CHENNAI, TAMIL NADU
PANIMALAR MEDICAL COLLEGE HOSPITAL & RESEARCH INSTITUTE, CHENNAI, TAMIL NADU
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GOVERNMENT MEDICAL COLLEGE, NAGARKURNOOL, TELANGANA
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VIJAYNAGAR INSTITUTE OF MEDICAL SCIENCES, BELLARY, KARNATAKA
KOPPAL INSTITUTE OF MEDICAL SCIENCES, KOPPAL, KARNATAKA
S.V.S. MEDICAL COLLEGE, YENUGONDA, MAHABUBNAGAR-509002, TELENGANA
SRT RURAL GOVT. MEDICAL COLLEGE, AMBEJOGAI 431517; MAHARASHTRA
MAHARASHTRA INSTITUTE OF MEDICAL SCIENCES & RESEARCH, AMBAJOGAI ROAD, VISHWANATH PURAM, LATUR-413512, MAHARASHTRA
GULBARGA INSTITUTE OF MEDICAL SCIENCES, GULBARGA – 585105, KARNATAKA
RAICHUR INSTITUTE OF MEDICAL SCIENCES, HYDERABAD ROAD -584 102, KARNATAKA
ESIC MEDICAL COLLEGE, GULBARGA UNIVERSITY CAMPUS, GULBARGA, KARNATAKA;
GOVERNMENT MEDICAL COLLEGE, METUGADDA, MAHABUBNAGAR DISTRICT 509001 (TELENGANA)
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KHAJA BANDA NAWAZ INSTITUTE OF MEDICAL SCIENCES, GULBARGA, KARNATAKA
NAVODAYA MEDICAL COLLEGE, NAVODAYA NAGAR, RAICHUR, KARNATAKA

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S.M.B.T. INSTITUTE OF MEDICAL SCIENCES & RESEARCH CENTRE, NANDHI HILLS, DHAMANGAON, TAL. IGATPURI, DIST. NASHIK 422403(MAHARASHTRA),
PADMASHRI DR.VITHALRAO VIKHE PATIL FOUNDATION'S AHMEDNAGAR HOSPITAL & MEDICAL COLLEGE, , AHMEDNAGAR-414111, MAHARASHTRA,
RURAL MEDICAL COLLEGE, PRAVARA MEDICAL TRUST, LONI-413736 DISTT. AHMEDNAGAR,(MAHARASHTRA)
GOVT. MEDICAL COLLEGE, PANCHAKKI RD., AURANGABAD-431001MAHARASHTRA
MAHATMA GANDHI MISSION'S MEDICAL COLLEGE N-6, CIDCO, NEW AURANGABAD-431003 MAHARASHTRA
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GOVT MEDICAL COLLEGE, CIVIL HOSPITAL CAMPUS, JALGAON - 425001 MAHARASHTRA
ULHAS PATIL MEDICAL COLLEGE, JALGAON, MAHARASHTRA
INDIAN INSTITUTE OF MEDICAL SCIENCES AND RESEARCH, WARUDI, TQ – BADNAPUR, DIST. – JALNA – 431202 (MAHARASHTRA)
B.J. MEDICAL COLLEGE, STATION ROAD, PUNE-411001; MAHARASHTRA
SMT. KASHIBAI NAVALE MEDICAL COLLEGE AND GENERAL HOSPITAL, NARHE, S.NO.49/1, MUMBAI-PUNE BYPASS ROAD, NARHE (AMBEGAON), PUNE-411 041, MAHARASHTRA
BHARATI VIDYAPEETH'S MEDICAL COLLEGE, SATARA ROAD, PUNE-411043 MAHARASHTRA
DR. D.Y. PATIL MEDICAL COLLEGE, SANT TUKARAM NAGAR, PIMPRI, PUNE-411018,MAHARASHTRA.
MAHARASHTRA INSTITUTE OF MEDICAL EDUCATION & RESEARCH, P.O. TALEGAON, GENERAL HOSPITAL, TALEGAON, DABHADE, DISTT. PUNE – 410507
DR. V.M. MEDICAL COLLEGE, SOLAPUR-413003, MAHARASHTRA.
ASHWINI RURAL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, AT POST - KUMBHARI, SOLAPUR, MAHARASHTRA,
GOVERNMENT MEDICAL COLLEGE & HOSPITAL, PLOT NO. 107, MIDC, BARAMATI, TAL. BARAMATI, DIST. PUNE RURAL, BARAMATI

**REGIONAL CENTRE: NORTH EASTERN INDIRA GANDHI REGIONAL INSTITUTE
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AGARTALA GOVERNMENT MEDICAL COLLEGE AND HOSPITAL, KUJABAN, AGARTALA; TRIPURA
TRIPURA MEDICAL COLLEGE AND DR. B R A M TEACHING HOSPITAL, HAPANIA, P.O. ONGC AGARTALA, TRIPURA (W) – 799 014
SIKKIM MANIPAL INSTITUTE OF MEDICAL SCIENCES, TADONG, GANGTOK- 737102; SIKKIM
KOKRAJHAR MEDICAL COLLEGE, ASSAM
SHIJA ACADEMY OF HEALTH SCIENCES IMPHAL WEST, MANIPUR
REGIONAL INSTITUTE OF MEDICAL SCIENCES, LAMPHELPAT, IMPHAL-795004, MANIPUR
JAWAHARLAL NEHRU INSTITUTE OF MEDICAL SCIENCES, POROMPAT; IMPHAL – 795005; MANIPUR
DHUBRI MEDICAL COLLEGE, DHUBRI, ASSAM
GOVERNMENT MEDICAL COLLEGE, CHURACHANDPUR, MANIPUR
COLLEGE OF MEDICINE & J.N.M.HOSPITAL, WBUHS NADIA, W.B.
JMN MEDICAL COLLEGE NADIA, W.B.
ICARE INSTITUTE OF MEDICAL SCIENCES & DR. BC ROY HOSPITAL, HALDIA PURBA MEDINIPUR, W.B.
TAMRALIPTO GOVERNMENT MEDICAL COLLEGE & HOSPITAL PURBA MEDINIPUR, W.B.
BURDWAN MEDICAL COLLEGE & HOSPITAL PURBA BURDWAN, W.B.

REGIONAL CENTRE: PGIMS, ROHTAK, HARYANA

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ADESH MEDICAL COLLEGE & HOSPITAL KURUKSHETRA PIN 136135, HARYANA
AL-FALAH SCHOOL OF MEDICAL SCIENCES & RESEARCH, DHAUJ, FARIDABAD-121004, HARYANA
BPS GOVERNMENT MEDICAL COLLEGE FOR WOMEN, KHANPUR KALAN, SONEPAT, HARYANA - 131305
ESIC MEDICAL COLLEGE, FARIDABAD-121001, HARYANA
KALPANA CHAWLA GOVERNMENT MEDICAL COLLEGE, KARNAL, 132001, (HARYANA)
MAHAJARA AGRASEN MEDICAL COLLEGE, AGROHA (HISSAR) – 125047, HARYANA
N C MEDICAL COLLEGE HOSPITAL & HOSPITAL, PANIPAT - 132107 (HARYANA)
SGT MEDICAL COLLEGE, HOSPITAL & RESEARCH INSTITUTE FACULTY OF MEDICAL AND HEALTH SCIENCES, VILLAGE, DISTT. GURGAON, HARYANA – 122 505
M.M. INSTITUTE OF MEDICAL SCIENCES & RESEARCH MULLANA, AMBALA (HARYANA)133203
DR S STANTIA MEDICAL COLLEGE HOSPITAL & RESEARCH CENTRE, SRI GANGANAGAR, RAJASTHAN
SHAHEED HASAN KHAN MEWATI GOVERNMENT MEDICAL COLLEGE, NALHAR, MEWAT – 122107 (HARYANA)
GOVERNMENT MEDICAL COLLEGE, SRI GANGANAGAR, RAJASTHAN 335001 NEW COLLEGE
WORLD COLLEGE OF MEDICAL SCIENCES AND HOSPITAL, JHAJJAR SAMPLE ROAD, GURWAR, JHAJJAR-124103 (HARYANA)
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**REGIONAL CENTRE: SRI AUROBINDO MEDICAL COLLEGE AND PG INSTITUTE,
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M.G.M. MEDICAL COLLEGE AGRA/BOMBAY ROAD, INDORE-452001; MADHYA PRADESH
LNCT MEDICAL COLLEGE & SEWAKUNJ HOSPITAL, INDORE INDORE, MADHYA PRADESH
RUXMANIBEN DEEPCHAND GARDI MEDICAL COLLEGE, SURASA, AGRA ROAD, UJJAIN 456006 (M.P.)
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BUNDELKHAND MEDICAL COLLEGE, SAGAR SHIVAJI WARD, TILLI ROAD SAGAR – 470002
CHIRAYU MEDICAL COLLEGE AND HOSPITAL, BAIRAGARH, BHOPAL – 462030
R.K.D.F. MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTRE, N.H.-12, BEHIND VRINDAVAN GARDEN, ZATKHEDI, BHOPAL, M.P.-462026
GOVERNMENT MEDICAL COLLEGE, SAGAR ROAD, NH-86, IN FRONT OF GOVT. KHEL PARISAR VIDISHA – 454001, MADHYA PRADESH
AMALTAS INSTITUTE OF MEDICAL SCIENCES, GRAM-BANGAR, DEWAS-UJJAIN HIGHWAY, DISTT. DEWAS, UJJAIN
MAHAVEER INSTITUTE OF MEDICAL SCIENCES & RESEARCH, BHOPAL BHOPAL, MADHYA PRADESH.
GOVERNMENT MEDICAL COLLEGE, TEHSIL KHANDWA, KHANDWA, MADHYA PRADESH
GOVERNMENT MEDICAL COLLEGE, SHAHNOL, MADHYA PRADESH
GOVERNMENT MEDICAL COLLEGE, BANJALI, RATLAM- 457001, MADHYA PRADESH
GOVERNMENT MEDICAL COLLEGE, CHITTORGARH, RAJASTHAN
GOVERNMENT MEDICAL COLLEGE, DATIA, MADHYA PRADESH – 475661
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INSTITUTE OF MEDICAL SCIENCES & SUM HOSPITAL, K-8, KALINGA NAGAR, BHUBANESHWAR – 751003; ORISSA
KALINGA INSTITUTE OF MEDICAL SCIENCES, KIIT UNIVERSITY, KHUSHABHADRA CAMPUS, PO-KIIT, PATIA, BHUBANESHWAR – 751024; ORISSA.
CHHATTISGARH INSTITUTE OF MEDICAL SCIENCES BILASPUR-495009, CHHATTISGARH
PANDIT JAWAHARLAL NEHRU MEDICAL COLLEGE, RAIPUR, JAIL RD, RAIPUR – 492001, CHHATTISGARH
M.G.M. MEDICAL COLLEGE, DIMNA ROAD, MANGO, JAMSHAEDPUR-831018, CHHATTISGARH
HI-TECH MEDICAL COLLEGE& HOSPITAL, R.G.H. CAMPUS, ROURKELA-769 004, ORISHA
LATE SHRI LAKHIRAM AGRAWAL MEMORIAL GOVERNMENT MEDICAL COLLEGE, T.V. TOWER ROAD, BENDRACHUWA, RAIGARH - 496001, CHHATTISGARH
PANDIT RAGHUNATH MURMU MEDICAL COLLEGE & HOSPITAL, BARIPADA RANGAMATIA, BARIPADA-757001, ODISHA
ACHARYA HARIHAR REGIONAL CANCER CENTRE (AHRCC), MEDICAL ROAD, MANGALABAG CUTTACK – 753007, ODISHA
FAKIR MOHAN MEDICAL COLLEGE & HOSPITAL, (PREVIOUSLY GOVT. MEDICAL COLLEGE, BALASORE) BALASORE – 756001, ODISHA
GOVERNMENT MEDICAL COLLEGE & HOSPITAL, (RENAMED AS BHIMA BHOI MEDICAL COLLEGE & HOSPITAL), BALANGIR – 767002, ORISSA
GOVERNMENT MEDICAL COLLEGE, KANYAPARISAR ROAD, GANGAPUR, AMBIKAPUR (SURGUJA), CHHATTISGARH - 497001
SRI JAGANNATH MEDICAL COLLEGE & HOSPITAL, PURI – 752004, ODISHA
MANIPAL TATA MEDICAL COLLEGE (MTMC), KANDANI ROAD, BARIDIH JAMSHEDPUR, JAMSHEDPUR-831017 JAMSHEDPUR
GOVERNMENT MEDICAL COLLEGE, CHITABHANGA SANKARA, SUNDARGARH-770001, ODISHA
GOVERNMENT MEDICAL COLLEGE, KABITA VILLAGE, KEONJHAR-758001, ODISHA
MKCG MEDICAL COLLEGE, BERHAMPUR, ORISSA

**REGIONAL CENTRE: SHRI RAM MURTI SMARAK INSTITUTE OF MEDICAL
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RAMA MEDICAL COLLEGE HOSPITAL & RESEARCH CENTRE, MANDHANA, KANPUR—209217 UTTAR PRADESH
VARUN ARJUN MEDICAL COLLEGE, BANTHRA, SHAHJAHANPUR KESHLATA HOSPITAL, DELAPEER, BAREILLY, SAHAJAHANPUR – 243122, U.P.
GOVERNMENT MEDICAL COLLEGE, KANNAUJ 209732, UTTAR PRADESH
F.H. MEDICAL COLLEGE, FIROZABAD, UTTAR PRADESH-283204
SARASWATI MEDICAL COLLEGE, MADHUVIHAR, ASHAKHERA, UNNAO, UTTAR PRADESH
GOVERNMENT MEDICAL COLLEGE, BADAUN-243601, UTTAR PRADESH
U P RURAL INSTT. OF MEDICAL SCIENCES & RESEARCH, SAIFAI, ETAWAH – 206301, UTTAR PRADESH
REGION INSTITUTE OF MEDICAL SCIENCES (MULAYAM SINGH YADAV (MSY) MEDICAL COLLEGE & HOSPITAL), MEERUT, UTTAR PRADESH
AUTONOMOUS STATE MEDICAL COLLEGE (FORMERLY- GOVERNMENT MEDICAL COLLEGE, SHAHJAHANPUR), AZIPUR, UTTAR PRADESH 242226
AUTONOMOUS STATE MEDICAL COLLEGE SOCIETY, FIROZABAD (FORMERLY GOVERNMENT MEDICAL COLLEGE, FIROZABAD, UTTAR PRADESH)
RAJKIYA MEDICAL COLLEGE, JALAUN (ORAI). ORAI – 285001 (UTTAR PRADESH)
TEERTHANKER MAHAVEER MEDICAL COLLEGE & RESEARCH CENTRE, MORADABAD – 244011, UTTAR PRADESH
ROHILKHAND MEDICAL COLLEGE & HOSPITAL, BAREILLY – 243006, UTTAR PRADESH
RAJSHREE MEDICAL RESEARCH INSTITUTE, TEHSIL MEERGANJ, DIST. BAREILLY, UTTAR PRADESH
SOBAN SINGH JEENA GOVERNMENT IMSR, ALMORA, UTTARAKHAND 263620
AUTONOMOUS STATE MEDICAL COLLEGE SOCIETY, ETAH, UTTAR PRADESH
AUTONOMOUS STATE MEDICAL COLLEGE SOCIETY, HARDOI, UTTAR PRADESH

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ALLOCATION OF STANDALONE PG INSTITUTES FOR BCME

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NAME OF PG INSTITUTE /COLLEGE
POSTGRADUATE INSTITUTE OF MEDICAL EDUCATION & RESEARCH, SECTOR-12, CHANDIGARH -160012
NETAJI SUBHAS NATIONAL INSTITUTE OF SPORTS MEDICINE, PATIALA-147001 (PUNJAB)
COMMAND HOSPITAL (WC) CHANDIMANDIR, PANCHKULA-134107 (HARYANA)

NODAL CENTRE: GOVERNMENT MEDICAL COLLEGE, KOTTAYAM, KERALA

NAME OF PG INSTITUTE /COLLEGE
REGIONAL CANCER CENTRE, THIRUVANANTHAPURAM MEDICAL COLLEGE P.O. THIRUVANANTHAPURAM – 695011 (KERALA)
SREE CHITRA THIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY, JAINAGAR ROAD, CHALAKKUZHI, THIRUVANANTHAPURA – 695011 (KERALA)

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DHARWAD INSTITUTE OF MENTAL HEALTH AND NEURO SCIENCES, DHARWAD, BELGAUM ROAD, DHARWAD – 580008 (KARNATAKA)

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NODAL CENTRE: SMT. NHL MUNICIPAL MEDICAL COLLEGE, AHMEDABAD

NAME OF PG INSTITUTE /COLLEGE
SETH K M SCHOOL OF POSTGRADUATE MEDICINE AND RESEARCH, ELLIS BRIDGE, AHMEDABAD – 380006 (GUJARAT)

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NAME OF PG INSTITUTE /COLLEGE
REGIONAL CENTRE FOR CANCER RESEARCH AND TREATMENT, EAST CANAL BANK ROAD GANDHI NAGAR, ADYAR, CHENNAI - 600020 (TAMILNADU)
SANKARA NETHRALAYA MEDICAL RESEARCH FOUNDATION, NO. 18 COLLEGE ROAD, NEW NO. 41, CHENNAI- 600006 (TAMILNADU)

NODAL CENTRE: ST. JOHN'S MEDICAL COLLEGE, BENGALURU, KARNATAKA

NAME OF PG INSTITUTE /COLLEGE
COMMAND HOSPITAL (AIR FORCE), OLD AIRPORT ROAD, AGRAM POST, BANGALORE - 560007 (KARNATAKA)
INDIRA GANDHI INSTITUTE OF CHILD HEALTH, SOUTH HOSPITAL COMPLEX, DHARMARAM COLLEGE POST BANGALORE - 560029 (KARNATAKA)
INSTITUTE OF AEROSPACE MEDICINE INDIAN AIR FORCE VIMANAPURA, BENGALURU - 560017 (KARNATAKA)
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SRCMCRI, CHENNAI	SRCMCRI, CHENNAI SCBMC, CUTTACK MADRAS MC, CHENNAI
NHL MMC, AHMEDABAD	NHL MMC, AHMEDABAD HIMS, DEHRADUN MPS GMC, JAMNAGAR
ST. JOHN'S MC, BANGALORE	ST. JOHN'S MC, BANGALORE IGIMS, PATNA
GMC, KOTTAYAM	GMC, KOTTAYAM GMC, KOZHIKODE
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CMC, VELLORE	CMC, VELLORE GMC, SECUNDERABAD BHASKAR MC, TELENGANA
JLNMC, BELAGAVI	JLNMC, BELAGAVI ASRAMS, ELURU MRMC GULBARGA
KGMU, LUCKNOW	KGMU, LUCKNOW IMS, BHU, VARANASI ESIC MC, JOKA, KOLKATA
JIPMER, PUDUCHERRY	JIPMER, PUDUCHERRY AMC, VIZAG MADURAI MC, MADURAI

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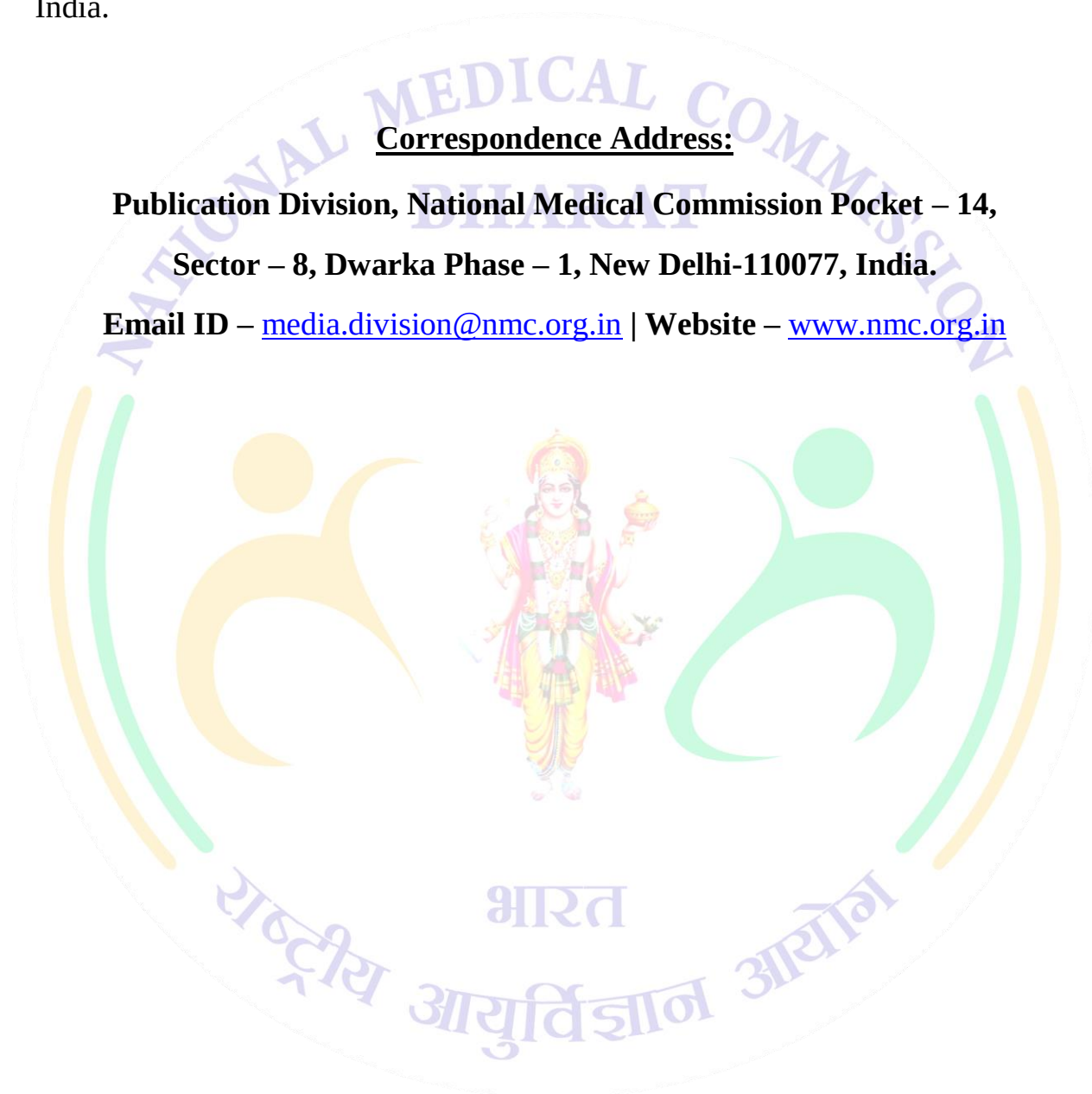
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