## Draft Regulations Governing License to Practice Medicine in India

On 6 April 2022, the National Medical Commission (NMC) of India placed in the public domain the draft regulations concerning 'License to practice medicine-2022', 'Registration of additional qualifications-2022', and 'Temporary registration of foreign medical practitioners to practice medicine in India'.

Upon ratification, these regulations will lay down the rules and regulations for registration of medical practitioners in the National Medical Register. This will streamline and regularly update the Register. As per the current rules, medical practitioners need to register with their home state medical councils in order to practise medicine. These data are then collated into the National Medical Register.

According to the draft regulations for 'License to practice medicine-2022', all Indian medical graduates need to complete their MBBS degree, do a mandatory 12-month internship, and pass the (forthcoming) National Exit Test (NExT) in order to get the requisite licence to practise medicine within the country.

Foreign medical graduates wishing to get a licence to practise medicine in India must pass a comparable MBBS-equivalent degree in their home country. The degree and institution must be recognized and listed by the NMC. Such graduates must complete a mandatory 12-month internship in India, and pass NExT before applying for the licence.

The draft regulations further state that the NMC will provide unique IDs to all students who pass the NEET examination and get admittance into recognized medical institutions within the country. This unique ID will continue to be applicable when the students pursue a postgraduation, a super-specialty course or an equivalent training programme.

The onus will be on medical graduates to immediately update details of any additional qualifications, contact details and workplace. At present, the state medical council registers are updated every 5 years when medical practitioners re-register.

The new rules will not be applicable to Indian medical and foreign medical graduates who have already registered in the Indian Medical Register (as per the Indian Medical Council Act of 1956) and/or are registered in a State Medical Council.

The draft regulations for temporary registration of foreign medical practitioners to practise medicine in India also stipulate a maximum time-frame of 12 months for medical doctors from other countries who wish to study, do clinical research, voluntary community service, or a fellowship within the country. This is also applicable to medical experts from abroad who wish to conduct/participate in workshops in India. The registration will expire when the programme is completed or with the expiration of a valid visa.

Such a temporary registration is mandatory. The draft regulations also specify that foreign medical practitioners need to provide a certificate from their medical council or licensing board that has been issued within the past 6 months. Their work within India will be restricted to the conditions laid down in the temporary registration. Also, the Indian sponsor will be held responsible for the professional conduct of such individuals. With regard to additional qualifications, the NMC defines them as 'qualifications other than the principal medical qualification'. The additional qualifications eligible for registration include degrees, diplomas, and other qualifications that are recognized/awarded by the NMC, National Board of Examinations, institutions of national importance or other statutory bodies. Additionally, postgraduate medical qualifications that a medical graduate obtains from Australia, Canada, New Zealand, the UK or the USA will be valid.

Dr George Thomas (Senior Consultant, Musculo-skeletal Trauma at Christian Medical College, Vellore, Ranipet Campus, and ex-editor, *Indian Journal of Medical Ethics*), stated in an email to this correspondent, 'The defining characteristic of the draft is centralization. It is not at all clear that a central exit examination is the best way to ensure a good standard among medical graduates. Examinations are only a small part of training. Any policy regarding the training of medical personnel should provide for a certain degree of flexibility and concern for local needs, best decided by local governments. There is a lot that can be changed for the better in the present system of licensing graduates. A highly centralized, top-down approach is not a good idea.'

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## New cells discovered in bronchioles can act as progenitors for repair and regeneration of damaged alveoli

Researchers at the University of Pennsylvania, Philadelphia, USA, have discovered an as-yet unknown variety of stem celllike cells that can act as templates to repair and regenerate damaged alveoli. The cells, known as respiratory airway secretory (RAS) cells, play an active role in blood–gas exchange in terminal bronchioles by reinforcing the integrity of the mucosal layer of the bronchioles and by bearing the potential to transform into alveolar type 2 cells, which augment repair of other damaged alveoli.

This discovery is pertinent especially in view of increasing incidence of chronic obstructive pulmonary disease (COPD) due to nicotine and air pollution. RAS cells have the potential to mitigate the side-effects of COPD and augment recovery from the same. The WHO has listed COPD as the third-highest cause of deaths globally with 90% affected in low- and mid-income countries being under 70 years of age. The extent of disease and disability caused by COPD has seen its inclusion in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases (NCDs) and the United Nations 2030 Agenda for Sustainable Development.

The research, which involved genetic analysis of lung tissue samples from healthy human donors was initially carried out on ferrets (rather than on mice) due to similar respiratory physiology in the former when compared to humans.

The paper was published in March 2022 in Nature (Basil

et al. Human distal airways contain a multipotent secretory cell that can regenerate alveoli. *Nature* 2022;**604**:120–6. *doi.org/ 10.1038/s41586-022-04552-0*) and involved researchers from the Department of Medicine, Penn-CHOP Lung Biology Institute, Penn Cardiovascular Institute and Division of Cardiovascular Surgery from University of Pennsylvania, Philadelphia and their counterparts from University of California, Center for Regenerative Medicine Boston University, Department of Medicine and the Gregory Fleming James Cystic Fibrosis Research Center at University of Alabama and Department of Anatomy and Cell Biology, Carver College of Medicine, University of Iowa, USA.

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## Effect of Covid-19 pandemic on tuberculosis in India

India has a quarter of all global and multidrug-resistant tuberculosis (MDR-TB) cases. It is estimated that in 2019, there were 2.64 million newly diagnosed cases of TB in India and approximately 450 000 people died of it.

Because of the Covid-19 pandemic, efforts by the United Nations Sustainable Development Goals, WHO's End TB Strategy and the Government of India's National Strategic Plan to eliminate TB by 2025, have suffered a setback.

India faces the problem of undiagnosed cases, improper treatment or inappropriate notification. Further, a high prevalence of latent TB infection has been reported in some areas such as Nagpur. Risk factors such as high population, poor socioeconomic status, malnutrition with impaired immunity, poor housing and inadequate ventilation results in latent TB and active case conversion. Presently, about 58% of the new and relapsed cases of TB are notified.

The lockdown and the second wave of Covid-19 resulted in gaps in the functioning of the National Tuberculosis Elimination Programme (NTEP), leading to reduced/delayed notification of new cases of TB.

TB notifications are electronically communicated through the Nikshay platform maintained by the Government of India. The Nikshay database was analysed for monthly case notifications across India from 2018 onwards, to judge the impact of Covid-19 on TB notification rates. It was observed that many patients were being 'missed' by the NTEP, due to widespread disruptions in general and TB-related health services in particular. Additionally, these missing patients kept spreading TB in the community.

There were 2 084 522 reported cases of TB in India from March 2020 to April 2021. In contrast, there would have been 3 404 725 expected cases in the absence of the Covid-19 pandemic. This is a 63.3% difference in case notification; this per cent decrease ranged from 10.9% (in Sikkim) to 114.9% (in the Union Territories). Delhi had the highest difference in case notification per 100 000 population (a difference of 429 case notifications per 100 000 population). Worldwide too, TB notifications reported a decrease by 21% in 2020 compared to 2019. The reduction in detection of new cases has led to an increase in incidence and mortality. Also, a decrease in the

number of children undergoing BCG vaccination has been noted.

The pillars of the National Strategic Plan (NSP) for TB, i.e. 'Detect–Treat–Prevent–Build', have all been disrupted by the pandemic.

The appropriate approach to tackling TB requires increasing overall testing capacity, active screening, identification of TB hotspots, and ensuring uninterrupted drug supply for treatment. Lessons learnt while battling Covid-19 can help in achieving the NTEP target of eliminating TB from India.

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## Maharashtra plans to enhance the capacity of human resources for health (HRH) under the public–private partnership (PPP) model

As per the WHO, the term 'skilled human resources for health' (HRH) refers to 'people engaged in actions that primarily enhance health'. Major disparities between the desired and actually available HRH exist all over the world, especially in lowand middle-income countries. The WHO had calculated the health worker threshold by 2030 to be a median density of 4.45 doctors, nurses and midwives per 1000 population-translating to the popularly quoted figure of 1 doctor/1000 population (Horton et al. Final report of the expert group to the High-Level Commission on Health Employment and Economic Growth, 2016). The distribution of HRH across various states of India is highly variable. The WHO Global strategy on human resources for health report (Global strategy on human resources for health: Workforce 2030. Geneva:WHO; 2016) stated that India needs at least 1.8 million doctors, nurses and midwives to achieve the minimum threshold.

On 22 April 2022, the Maharashtra State Government has announced plans to add 1600 MBBS seats in the state by setting up new medical colleges in 16 districts of the state including Ahmednagar, Amravati, Buldhana, Hingoli, Jalna, Nashik, Palghar and Ratnagiri, suburban Mumbai and Thane. Following the NITI Aayog directive to the states to use the public-private partnership (PPP) model (https://www.niti.gov.in/sites/default/ files/2020-06/Concession-Agreement-Guiding-Principles-*Medical-Education.pdf*), the Government of Maharashtra plans to first set up as a pilot project in the PPP model: Greenfield development of a 615-bed super-specialty hospital in Nagpur, operation and maintenance of super-specialty hospitals in the Government Medical College, Osmanabad and Vilasrao Deshmukh Government Medical College, Latur. The State Government has also planned to add 50 MBBS seats to the existing government medical colleges. The State Government is also planning to add 1100 postgraduate seats in the next 3 years and creating 400 super-specialty seats from 2026 onwards. This plan aims at delivering quality healthcare to all sections of the community, modernize hospital operations and speed up capacity building of the HRH.

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