



# Tele Medicine Task Force

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RECOMMENDATIONS

# Agenda

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1. Regulatory Framework

2. Demand/ Supply landscape and Impact

3. Roll out plan

4. Annexure

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# Regulatory framework (Addendum)

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- 1. Co-opt the national and state medical councils to immediately allow teleconsultations pan – India
  - 2. Extrapolate the regulatory framework, as done for the Ayushman Bharat Health and Wellness Centres (DO T-21016/104/2018-e-Health dated 27.7.2019 and 29.8.2019), so as to be applicable to all teleconsults
  - 3. Validate e-prescriptions and e-consults when doctor demographics, patient demographics, drug /disease demographics and symptom demographics are documentable and auditable on the platforms.
  - 4. Data transmission, storage, access, retrieval , usage and monitoring should follow the National Digital Health Blueprint guidelines
  - 5. Ensure platforms are able to store the e-consult data for 5 years as per medico – legal norms
  - 6. Notwithstanding anything contained in this notification, the dispensation of medicines that are to be delivered to customers/ patients shall only be undertaken by a registered pharmacist from a registered pharmacy and only against a valid prescription from a doctor/ medical practitioner, as required under the Drugs and Cosmetics Act, 1940 read with the rules framed thereunder, with the doctor/ medical practitioner being required to have specifically examined the condition of the patient (through telemedicine or otherwise) prior to the provision of the prescription for the medicines. For the avoidance of doubt, it is clarified that the purpose of the notification is not to allow the e-commerce of prescription medication.
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## Other Recommendations for addendum

• S. No	• Clause No	• Description as per Document	• Proposed Amendments / Additions to the Guidelines
• 1	• Page No. 13, Clause 1.4.2.4 (Workflow)	<ul style="list-style-type: none"> <li>According to the individuals involved:               <ol style="list-style-type: none"> <li>Patient to RMP</li> <li>Caregiver to RMP</li> <li>RMP to RMP</li> <li>Health worker to RMP</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Telemedicine Coordinator / Telemedicine Facilitator also to be taken into consideration in the RMP – Health Worker – Patient Flow</li> </ul>
• 2	• Page No. 16, Clause 3.2.3	<ul style="list-style-type: none"> <li>For issuing a prescription, the RMP needs to explicitly ask the age of the patient, and if there is any doubt, seek age proof. Where the patient is a minor, after confirming the age, tele consultation would be allowed only if the minor is consulting along-with an adult whose identity needs to be ascertained.</li> </ul>	<ul style="list-style-type: none"> <li>The RMP should be allowed to prescribe restricted amount of treatment (OTC's) along with health education to minors that are not accompanied by adults; considering the need of the ailment presented by the minor patient</li> </ul>
• 3	• Page No. 17, Clause 3.4	<ul style="list-style-type: none"> <li>Patient Consent: Patient consent is necessary for any telemedicine consultation. The consent can be Implied or explicit depending on the following situations:               <ol style="list-style-type: none"> <li>3.4.1 If, the patient initiates the telemedicine consultation, then the consent is implied.</li> <li>3.4.2 An Explicit patient consent is needed if: A Health worker, RMP or a Caregiver initiates a Telemedicine consultation.</li> <li>3.4.3 An Explicit consent can be recorded in any form. Patient can send an email, text or audio/video message. Patient can state his/her intent on phone/video to the RMP (e.g. “Yes, I consent to avail consultation via telemedicine” or any such communication in simple words). The RMP must record this in his patient records.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Consent can be taken as implied in scenarios where the patient is walking into a dedicated telemedicine centre voluntarily for availing Teleconsultation.</li> </ul>

## Other Recommendations for addendum

<ul style="list-style-type: none"><li>• 4</li></ul>	<ul style="list-style-type: none"><li>• Page No. 20, Clause 3.7.4</li></ul>	<ul style="list-style-type: none"><li>• Prescribing Medicines: Prescribing medications, via telemedicine consultation is at the professional discretion of the RMP. It entails the same professional accountability as in the traditional in-person consult. If a medical condition requires a particular protocol to diagnose and prescribe as in a case of in-person consult then same prevailing principle will be applicable to a telemedicine consult. RMP may prescribe medicines via telemedicine ONLY when RMP is satisfied that he/ she has gathered adequate and relevant information about the patient's medical condition and prescribed medicines are in the best interest of the patient. Prescribing Medicines without an appropriate diagnosis/provisional diagnosis will amount to a professional misconduct. Specific Restrictions There are certain limitations on prescribing medicines on consult via telemedicine depending upon the type of consultation and mode of consultation. The categories of medicines that can be prescribed via tele-consultation will be as notified in consultation with the Central Government from time to time.</li></ul>	<ul style="list-style-type: none"><li>• Keeping in view the wellness centre scope of service and in view of the pandemic situation right now, Drug prescription guideline needs amendment to include the Schedule 'U' Category drugs that can be prescribed through audio and video mode.(Schedule U drugs are available at Subcentre and PHC level).</li></ul>
<ul style="list-style-type: none"><li>• 5</li></ul>	<ul style="list-style-type: none"><li>• Page 29, Clause 4.2</li></ul>	<ul style="list-style-type: none"><li>• <b>Consultation between patient and RMP through a caregiver</b> <b>4.2.1 For the purpose of these guidelines "Caregiver" could be a family member, or any person authorized by the patient to represent the patient.</b></li></ul>	<ul style="list-style-type: none"><li>• The Definition of Care giver (especially in case if it is a minor) must be defined even further</li></ul>



# Other Recommendations for addendum

<ul style="list-style-type: none"> <li>• 6</li> </ul>	<ul style="list-style-type: none"> <li>• Page 29, Clause 4.2.2(2b)</li> </ul>	<ul style="list-style-type: none"> <li>• Caregiver has a formal authorization or a verified document establishing his relationship with the patient and/or has been verified by the patient in a previous inperson consult (explicit consult).</li> </ul>	<ul style="list-style-type: none"> <li>• The Format or the Guidelines for certifying someone as caregiver must be established</li> </ul>
<ul style="list-style-type: none"> <li>• 7</li> </ul>	<ul style="list-style-type: none"> <li>• Page 32, Clause 4.4</li> </ul>	<ul style="list-style-type: none"> <li>• Registered Medical Practitioner to another RMP/Specialist Registered Medical Practitioner might use telemedicine services to consult with another RMP or a specialist for a patient under his/her care. Such consultations can be initiated by a RMP on his/her professional judgement.</li> <li>· The RMP asking for another RMP’s advice remains the treating RMP and shall be responsible for treatment and other recommendations given to the patient.</li> <li>· It is acknowledged that many medical specialties like radiology, pathology, ophthalmology, cardiology, dermatology etc. may be at advanced stages of adoption of technology for exchange of information or some may be at early stage. Guidelines support and encourage interaction between RMPs/ specialists using information technology for diagnosis, management and prevention of disease.             <ul style="list-style-type: none"> <li>o Tele-radiology is the ability to send radiographic images (x-rays, CT, MRI, PET/CT, SPECT/CT, MG, Ultrasound) from one location to another.</li> <li>o Tele-pathology is use of technology to transfer image-rich pathology data between distant locations for the purposes of diagnosis, education, and research.</li> <li>o Tele-ophthalmology access to eye specialists for patients in remote areas, ophthalmic disease screening, diagnosis and monitoring.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Guidelines can be provided in further detail on the Board Consults (ex: Tumour Boards) in the RMP – RMP Framework of Tele-Consultation</li> </ul>
<ul style="list-style-type: none"> <li>• 8</li> </ul>	<ul style="list-style-type: none"> <li>• Page 23, Clause 3.7.1.4</li> </ul>	<ul style="list-style-type: none"> <li>• 3.7.1.4 Misconduct -Bullet Point-4 RMPs are not permitted to solicit patients for telemedicine through any advertisements or inducements</li> </ul>	<ul style="list-style-type: none"> <li>• Considering the benefits of the services in an constrained health care system awareness of such Telemedicine services should be allowed</li> </ul>

## Other Recommendations for addendum

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• 9	<ul style="list-style-type: none"><li>Archiving of the Patient- RMP Interactions (prescription, audio video files) must be made mandatory and guidelines to be established regarding the same, especially in modes of consultation where platforms like Facebook, Whatsapp etc are being used.</li></ul>
• 10	<ul style="list-style-type: none"><li>Guidelines on Tele-Laboratories, Tele-Radiology, Tele-Pathology, Tele-eICU Tele-Ophthalmology, Tele-Emergency etc are to be included. As more technology developments will evolve and open more robust clinical practices over the telemedicine practices.</li></ul>
• 11	<ul style="list-style-type: none"><li>If RMP chooses to consult the patient using multiple modes of Tele-consult, all the patient RMP interaction data needs to be stitched together and archived for future reference in an integrated manner.</li></ul>
• 12	<ul style="list-style-type: none"><li>Overall Tele-consults (or) Remote health care provided over the email, social media (Facebook, Whatsapp (or) Skype which are not built specifically for handling health information exchange, archival system adherence, audit trails not being available for clinical practice should not be mentioned in the document titled “ Telemedicine Practice Guidelines-India”. Considering the data being captured on such applications are being used for various data analytics of marketing and analysis which will defy the “Medical Ethics, Data Privacy &amp; Confidentiality”</li></ul>
• 13	<ul style="list-style-type: none"><li>The document seems to have been written with the presumption that; all patient data have been captured only by recording presenting complaints of the patient as narrated by the patient. However with the integration of the advanced biomedical clinical equipment’s more of evidence based clinical decisions can be arrived and prescriptions can be provided by the RMPs</li></ul>
• 14	<ul style="list-style-type: none"><li>The Telemedicine service provider (or) RMP (or) all stakeholders should abide and be responsible for data privacy and should take adequate steps to use only such applications, services, networks and which will assure such protection for health data of the patients.</li></ul>
• 15	<ul style="list-style-type: none"><li>Primary prescription issued to patients should be through a digital telemedicine EMR system only and secondary communication can be through the email communication or through link for receiving from the database</li></ul>

# Demand-supply summary: Telemedicine platform can support 25M of the 33M consulting hours needed in the next 100 days

**Demand: ~ 1.7M COVID +ve cases will seek tele-support** in the next 100 days; with other primary care needs **we need ~33M hours of consultations**

Type of case (in first 100 days)	COVID+ve	Chronic care	Acute care
<b>A. Number of patients seeking teleconsultation</b>	~1.7M	~30M	~31M
<b>B. Number of consultations per patient</b>	6	2	3
<b>C. Number of hours per consultation</b>	10mins per patient		
<b>D. Total number of consultation hours (AxBXC) in first 100 days</b>	2M hours	12M hours	19M hours
	<b>33M hours (2M+12M+19M)</b>		

**Note: Estimate of total number of COVID+ve patients in India (base case) in the next 100 days: ~14.2M (details on page 7)**

**Total number of COVID +ve cases served by telemedicine = 12% (i.e. 1.7M divided by 14.2M)**

Note: Assumed ~400M cases of DM & HTN contributing to chronic disease

Source: COVID cases estimated basis Penn Hospital study and Italy case study, assumed 40% would be symptomatic and 30% would seek teleconsultations, Doctor universe estimated basis SMC registration, retirement etc.; availability assumed at 75%

**Supply: India has capacity to deliver ~25M hours of consultation** if we can get 15-20% doctors on telemedicine platforms in the next 100 days

## Supply estimation

<b>1. Total universe of allopathic doctors in India</b>	~800K
<b>2. Number of practicing doctors</b> (reg. with NMC, currently practicing ~75% of the universe)	~600K
<i>GPs/ CPs</i>	~540K
<i>Specialists (10% of total doctors)</i>	~60K
<b>3. % of doctors already on or can be on a tele consult platform in the first 100 days</b>	~15%
<b>4. Number of consultation hours per day per doctor</b>	~4hours
<b>5. Time per consultation</b>	10 mins
<b>6. Number of active days on the platform</b>	70 days
<b>Total number of consultation hours available (2x3x4x6) divided by (5)</b>	<b>~25M hrs</b>



# Assumptions for demand and supply estimation

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## Demand estimation

- **For COVID:** We are assuming today is day 0 (defined as possible start of community transmission) and we are preparing for the worst and have taken assumptions from studies conducted by WHO, Penn-Health, CDC, COV-IND-19 Study Group
- **Chronic diseases:** Diabetes (122M, source: IDF) and Hypertension (~250M, source: Gupta & Ram, 2019) assumed largest share of chronic diseases (cardiovascular disease, COPD, Asthma, **others assumed as co-morbidities**)
  - For Chronic diseases **20% of prevalence in Metro/T1, 5% In T2+** assumed to seek Tele-consultations
- **Acute diseases:** Disease burden estimated for acute infections and other diseases like Malaria, Dengue (source: Global burden of disease), 20-25% of annual prevalence assumed in next 100 days (Early Monsoon period)
  - For Acute **40% of prevalence in M/T1, 15% in T2+** assumed to seek Tele-consultation for febrile illnesses(given fear of COVID)

## Supply estimation

- **Active doctors** assumed to be at **~600K, 75-80% of doctors registered in India** (20-25% assumed to be retired, out of country, not practicing..)
- **Total universe of allopathic doctors** in FY20 assumed at **750-800K** basis registrations on State and National Medical Councils of India
- Number of **doctors currently registered/ expected to register on e-platforms** estimated at **25%-35% (1.5-2 lakh) of active doctors** (basis doctor registrations on apps like Practo (200k), Lybrate (150K) and Docplexus (350K))
- No of doctors to be active on Tele-Health platforms (within 1<sup>st</sup> 100 days) assumed at 50% of those registered (~90K)
- **Specialists** assumed at **10-15% of practicing doctors**
- **Average 4 hours of tele-consulting** assumed per doctor, with **10 mins of average consultation time** per patients across cases

# Implementation plan

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## **Immediate implementation (next 2 weeks)**

- TSI website to host directory of all available tele-health service providers □ patients can choose provider and get directed to provider site to book/obtain tele-consults
- Additional option for a landing page to be hosted on NITI website where patient demographics are captured □ patient then directed to directory of telehealth providers

## **Mid-term implementation (2 weeks – 2 months)**

- Ramp up existing tele-health capacity from private players (hospitals, health tech platforms) by increasing # of active doctors on platform, ramping up platform for increased levels of usage, putting in place standard protocols, etc
  - Evaluate and implement scale government tele-health platforms (central/state level) which utilizes capacity of government doctors
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# Key enablers and areas of focus

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- Ensure that adequate **supply capacity is secured** (private and public)
  - **Train doctors** on tele-consult usage protocols and guidelines
  - Put in place overall **COVID protocols for screening, triaging and treatment** of mild cases via tele-health
  - Design technology architecture to allow **uploading of test results** / touchpoints with diagnostic labs
  - **Communication campaign** to enable patients to seek help offline
  - Clarify **commercial construct** across patient categories (govt. reimbursement, out-of-pocket, others)
  - **Tie ups with pharmacies/providers** to enable patient access to drugs & treatment
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# Annexure

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# Source

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- Telemedicine Practice Guidelines ( MOHFW \_ March 2020) <https://www.mohfw.gov.in/pdf/telemedicine.pdf>
  - Document GoI- MOHFW- Signed by Smt. Preeti Sudan and Sh. Manoj Jhalani
  - National Digital Health Blueprint
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# Excel backup - Supply

Telemedicine	M/T1	T2/ Rural	Total	Assumptions
# of Doctors registered with SMCs			800,000	<i>Source: Indian Journal of public health; <a href="http://www.ijph.in/temp/IndianJPublicHealth613182-4061934_111659.pdf">http://www.ijph.in/temp/IndianJPublicHealth613182-4061934_111659.pdf</a></i>
Availability			75%	<i>Source: Indian Journal of public health; <a href="http://www.ijph.in/temp/IndianJPublicHealth613182-4061934_111659.pdf">http://www.ijph.in/temp/IndianJPublicHealth613182-4061934_111659.pdf</a></i>
# Doctors	240,000	360,000	600,000	
GPs / CPs	216,000	324,000	540,000	90%
Specialists	24,000	36,000	60,000	10%
# Doctors on expected on platform	84,000	90,000	174,000	
GPs / CPs	75,600	81,000	156,600	35% << M/T1 Assuming incremental 5%
Specialists	8,400	9,000	17,400	25% << T2+ Assuming incremental 5%
# of Doctors adopting platform in 1st 100 days	42000	45000	87000	50%
GPs / CPs	37800	40500	78300	
Specialists	4200	4500	8700	
Tot. hours / doctor	4	4	4	
Tot. hours of tele-support	168,000	180,000	348,000	4
GPs / CPs	151,200	162,000	313,200	
Specialists	16,800	18,000	34,800	
Time for consults (hrs)	0.20	0.20	0.20	
# of consultations per day	840,000	900,000	1,740,000	<i>Tele-medicine consults are not more than 10 mins, specialist - first consult 1</i>

## Supply for consultation (first 100 days)

				Select time >>	
Supply of hours	11,780,000	12,600,000	24,380,000	70	<i>Assumption: 30-40 days for operationalization of teleconsulting</i>
GPs / CPs	10,584,000	11,340,000	21,924,000	70	
Specialists	1,176,000	1,260,000	2,436,000	70	
	0.20	0.20	0.20	Time per consultation>>	
# of consultations	58,800,000	63,000,000	121,800,000	0.20	
GPs / CPs	52,920,000	56,700,000	109,620,000		
Specialists	5,880,000	6,300,000	12,180,000		



# Excel backup - Demand

## Demand for consultation (first 100 days)

<b>Total demand</b>			
# of patients	26,477,692	36,864,309	63,342,001
# of hours of consultation	13,313,950	19,761,401	33,075,351
<b>COVID</b>			
# of patients	672,225	1,031,359	1,703,584
# of hours of consultation	806,670	1,237,631	2,044,301
<b>Chronic</b>			
# of patients	14,880,000	14,880,000	29,760,000
# of hours of consultation	5,952,000	5,952,000	11,904,000
<b>Acute</b>			
# of patients	10,925,467	20,952,950	31,878,417
# of hours of consultation	6,555,280	12,571,770	19,127,050

<b>COVID cases</b>	5,601,876	8,594,658	14,196,534
<i>Symptomatic</i>	40%	40%	40%
Open to teleconsult	30%	30%	
<b># of COVID cases requiring tele-consult</b>	<b>672,225</b>	<b>1,031,359</b>	<b>1,703,584</b>
# of Cons. Required per patient	6	6	6
Hr / consultation	0.2	0.2	0.2
<b>COVID needed consultations (hrs)</b>	<b>806,670</b>	<b>1,237,631</b>	<b>2,044,301</b>

<b>Chronic cases</b>	74,400,000	297,600,000	372,000,000
Open to teleconsult	20%	5%	
<b># of Chronic cases requiring tele-consult</b>	<b>14,880,000</b>	<b>14,880,000</b>	<b>29,760,000</b>
# of Cons. Required per patient	2	2	2
Hr / consultation	0.2	0.2	0.2
<b>Chronic needed consultations (hrs)</b>	<b>5,952,000</b>	<b>5,952,000</b>	<b>11,904,000</b>

<b>Acute cases</b>	27,313,667	139,686,333	167,000,000
Open to teleconsult	40%	15%	
<b># of Acute cases requiring tele-consult</b>	<b>10,925,467</b>	<b>20,952,950</b>	<b>31,878,417</b>
# of Cons. Required per patient	3	3	3
Hr / consultation	0.2	0.2	0.2
<b>Acute needed consultations (hrs)</b>	<b>6,555,280</b>	<b>12,571,770</b>	<b>19,127,050</b>