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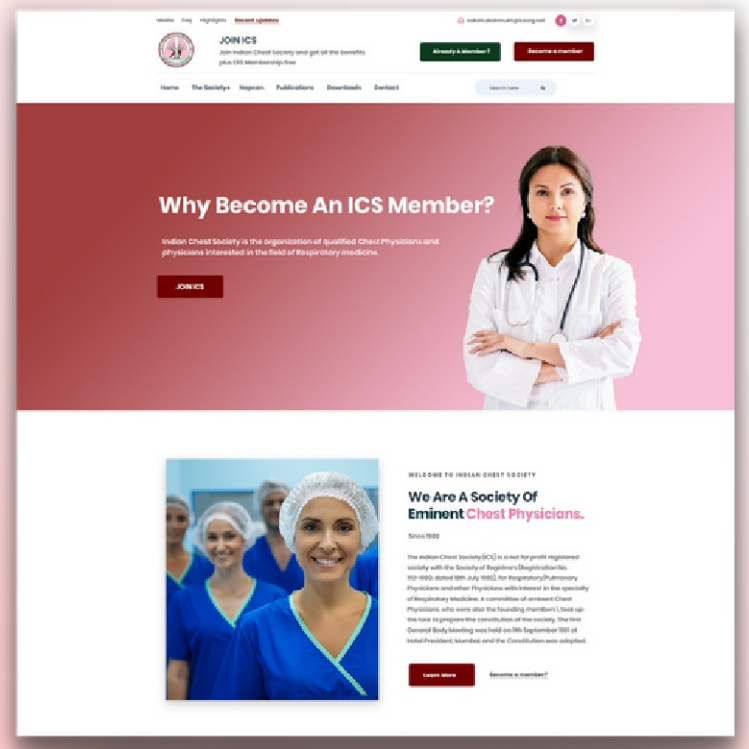
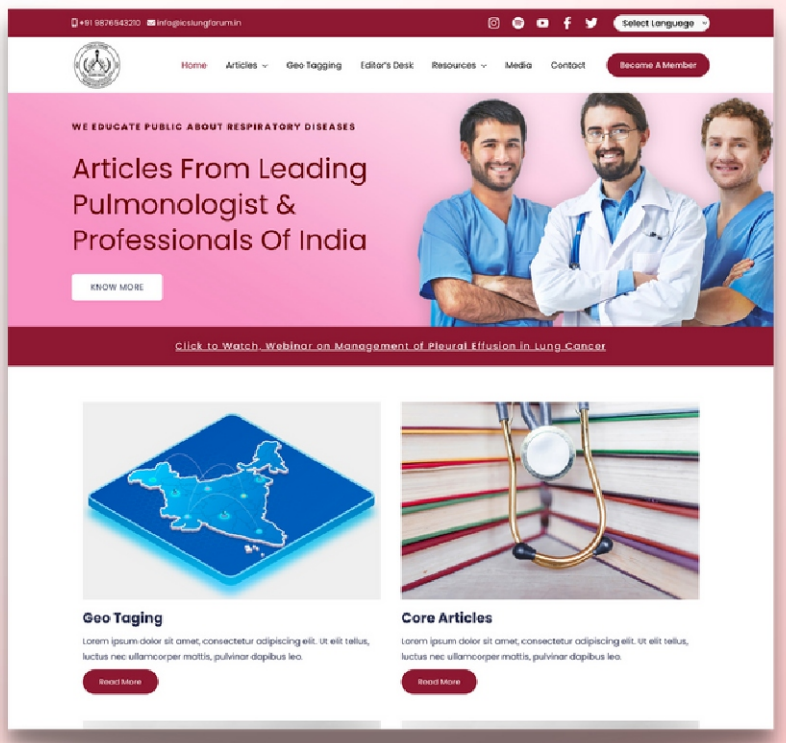
JANUARY - APRIL 2022 Life at ICS

Official triannual communication from Indian Chest Society

WELCOME DELEGATES TO NAPCON 2021

INDIAN CHEST SOCIETY
DIGITAL TRANSFORMATION





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* Indian Journal of Pharmaceutical Sciences

THE SUPERIOR SYNERGISTIC COMBINATION[1,3,4]

KEY PARAMETERS of Combination	Allegra-M (Fexofenadine + Montelukast)	Levocetirizine + Montelukast	Bilastine + Montelukast
Bioequivalence published data[1,4]	Yes	No	No
Synergistic effect[1,3,4]	Yes	Yes	No
HTH efficacy data in Indian patients[4]	Yes	Yes	No
HTH efficacy (TNSS)[4]	92.5%	85.6%	No HTH data
HTH safety data (Sedation)[4]	9.6%	23.2%	No HTH data

References: 1. Walekar A, Chodankar D, Naqvi M, Trivedi C: Assessment of Bioequivalence of Fexofenadine and Montelukast Fixed Dose Combination Tablet Versus Separate Formulations of the Individual Components at the Same Dose Levels. Indian journal of pharmaceutical sciences, 2016, 78(5), 651-656
2. This dissolution study compares Allegra M, Allegra, Singulair and one Fexofenadine + Montelukast fixed dose combination available as a monolayered tablet in India. Data on File, 2012 (b)
3. Concomitant bilastine and montelukast as additive therapy for seasonal allergic rhinoconjunctivits and mild-to-moderate asthma. The SKY study. 2019.
4. Prateek Nayak, et al. A Randomized, Open Label, Prospective, Comparative, Multicentric Study to Evaluate the Efficacy and Safety of Montelukast and Fexofenadine Fixed-dose Combination vs **Montelukast and Levocetirizine Fixed-dose Combination in Allergic Rhinitis. Indian Journal of Clinical Practice, Aug 2013.**

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MAT-IN-2101028-02-03/21

Index

Concept and Compilation by : ***Mrs. Sakshi Soni Deshmukh,*** *B.E., MBA (Mktg.)*
Head (Operations and Marketing), Indian Chest Society.
Edited by : ***Dr. Rajesh Swarnakar,*** *Hon. Secretary, Indian Chest Society*

A Note from
The Outgoing President's Desk

Dr. D. Behera

Dear Friends

Greetings from the President's desk! After getting busy and spending tense moments for the past few months because of the 3rd wave of COVId-19, thankfully we are gradually coming back to normalcy. We will be busy with our business as usual but with some caution. Over the past year or so, ICS has gone ahead with several academic activities with nearly 100 CMEs, seminars, and symposia. Many state chapters have organized many CMEs and conferences despite the COVID situation.

I must thank our Technical Education Committee team for this achievement. We could fix and finalize guidelines for such CMES by ICS. We could renew our collaboration with ERS. Although we could not start any new research projects during the year (because of COVID) we were able to streamline the conduct of research and funding mechanisms of research by ICS. We were able to fix certain issues associated with this process.

Another important activity that we will like to fix and streamline is the procedures for holding NAPCON by ICS whenever its turn comes. Our main focus will be on the academic content and financial conduct of the organizer in a more transparent way. To some extent, we will also like to develop procedures for state chapters to hold conferences also.

We are meeting at Varanasi within the next few days for our annual meeting (March 31-April 3, 2022). We expect a good academic feast and we will enjoy the hospitality of Varanasi led by Dr. Samaria. I will again like to re-emphasize the role of Pulmonologists as leading opinion leaders in the field of Respiratory Medicine, be it in the field of education, curriculum, National TB Elimination Program, other Non-communicable Diseases (Asthma and COPD) and Smoking Cessation programs, etc.

We need to maintain and sustain our knowledge on various new developments in the field of Respiratory. Another important job will be to spread this newer knowledge to our younger generation and other General Physicians so that our fellow citizens get the best, evidence-based respiratory care.

Hope to meet all of you soon at Varanasi!

Jai Hind.

Prof. (Dr). Digambar Behera (PADMASHREE AWARDEE)
MD (Med), FCCP, FAMS, FNCCP, FICP, FICA, FAPSR, FICS, MNAMS (Med), Dip. NBE (Resp. Med.)
Emeritus Professor
Ex-Professor and HOD; Dept. of Pulmonary Medicine,
(WHO Collaborating Centre for Research & Capacity Building in Chronic Respiratory Diseases)
Ex-Dean (Research)
Ex-Chairman of Medical Departments (Group B)
Postgraduate Institute of Medical Education & Research, Chandigarh - 160012 (INDIA)
Advisor, National Task Force (NTEP/RNTCP)
President, Indian Chest Society
President, Indian Society for Study of Lung Cancer
President-Elect, National Academy of Medical Sciences
Past-President, National College of Chest Physicians
EX-OSD, AIIMS, Raebareli
Director, Pulmonary Medicine, Fortis Health Care, Mohali, Punjab.

A Note from
The Secretary's Desk

Dr. Rajesh Swarnakar

Hello, NAPCON 2021 Friends and Delegates!

I welcome you all wholeheartedly to NAPCON 2021 in the holy city of Varanasi!!!

The theme of the conference is "COMMEMORATING RESPIRATORY CARE" : "RESILIENCE, STRENGTH, SKILL, INNOVATION, AND HOPE" HONORS THE SPIRIT OF PULMONOLOGISTS WHO FIGHTED THIS PANDEMIC, SAVING MANY LIVES WHILE RISKING AND EVEN SACRIFICING THEIR OWN.

Let me start by congratulating Dr. J. K. Samaria and the team for organising this excellent conference and the scientific committee for such a well-planned schedule.

I am delighted, and I am sure you will be physically part of this academic with its accompanying cultural extravaganza. I hope you enjoy the hospitality and carry a lot of good memories back with you.

I want to congratulate all the conference award winners, especially Dr. Rajendra Prasad, for the ICS Lifetime Achievement award. Please see the list of our award winners that is part of our recent updates. From myself and the ICS GB, I congratulate each one of you.

ICS has grown by leaps and bounds over the last many years. We started cleaning our database for online voting and successfully collected details from most of you. Online voting received a great response. With the TEI committee headed by Dr. Raja Dhar, ICS has an increasing interest in webinars and physical events, which is very pleasing to know. Thank you for the efforts of this committee and, equally, to our faculty and viewers.

ICS started working on its social media, which has also shown tremendous interest from all of you for the last two years. We are now on almost all the social media platforms like Instagram, Spotify, YouTube, and Twitter. The ICS Facebook page has 2200 followers, and we post all updates there on a regular basis, so I'd like to ask you to follow and like it.

We have some exciting news on the website front; also, we wish to have geo-tagging of all our members done on our public forum website, which shall help the general public with correct advice from a specialist like you. A unique portal is being created on our main website, where you will have a dedicated wall to yourself to access all you need from the Indian Chest Society! Stay tuned with us for more.

RESPIRE is a mouthpiece, and we would like to have your articles, suggestions, and interest. Please keep writing to us at icsofficeexecutive@gmail.com.

Till then, have a great year ahead!

Dr. Rajesh Swarnakar
Secretary@icsorg.net

A Note from
The Incoming President's Desk

Dr. Dhrubajyoti Roy

Dear Friends

It is a pleasure to address a few words on the occasion of the NAPCON special January - April issue of RESPIRE as an incoming President of ICS. Since its birth ICS have been in different type of academic & other activities.

The whole world & our nation has witnessed the all-pervasive pandemic of Covid pandemic. The medical community & our fellow pulmonologists were in the forefront of this battle. We have learned to fight out this devastating community infection during the period. Presently we are going through the 3rd wave of the pandemic and fortunately, we have been able to vaccinate majority of people across the country.

The ICS has held its banner high in this covid battle & has held many webinars about this covid infection, apart from having high-level academic programmers.

Last year the HERMES examination was successfully done in Kolkata under the aegis of ICS and many of the examinees passed out the examination increasing the repute of the society.

I wish the pulmonologists & related specialties all over the country to participate in this mega-conference going to be held from 31st March to 3rd April 2022 at Varanasi & make it a grand success.

Dr. Dhrubajyoti Roy
President Elect, ICS

List of ICS Past President and Secretaries

Year	President	Secretary
1981	A committee was formed for ICS Constitution	
1982	Dr. M. P. Malhotra	Dr. P. G. Kamat
1983	Dr. C.V . Ramakrishnan	Dr. P. G. Kamat
1984	Dr. S. K. Gupta	Dr. P. G. Kamat
1985	Dr. P. S. Shankar	Dr. P. G. Kamat
1986	Dr. Kewal Krishna	Dr. P. G. Kamat
1987	Dr. J. C. Kothari	Dr. S. R. Kamat
1988	Dr. K. G. Yedurappa	Dr. S. R. Kamat
1989	Dr. K. C. Mohanty	Dr. S. R. Kamat
1990	Dr. K. J. R. Murthy	Dr. A. A. Mahashur
1991	Dr. A. S. Bagga	Dr. A. A. Mahashur
1992	Dr. D. D. S. Kulpati	Dr. A. A. Mahashur
1993	Dr. U. S. Mathur	Dr. A. A. Mahashur
1994	Dr. C. N. Deviyangam	Dr. A. A. Mahashur
1995	Dr. Surendra Nath	Dr. A. A. Mahashur
1996	Dr. V. K. Arora	Dr. Rohini V. Chowgule
1997	Dr. Srinivasrao	Dr. Rohini V. Chowgule
1998	Dr. S. Chandrasekharan	Dr. Rohini V. Chowgule
1999	Dr. S. V. Rang	Dr. Rohini V. Chowgule
2000	Dr. P. Ravindran	Dr. Rohini V. Chowgule
2001	Dr. T. Mohan Kumar	Dr. Rohini V. Chowgule
2002	Dr. K. B. Gupta	Dr. Rohini V. Chowgule
2003	Dr. S. K. Jindal	Dr. Rohini V. Chowgule
2004	Dr. Dhiman Ganguly	Dr. Rohini V. Chowgule
2005	Dr. V. K. Jain	Dr. J. K. Samaria
2006	Dr. A. A. Mahashur	Dr. J. K. Samaria
2007	Dr. Vijayalakshmi Thanasekaraan	Dr. J. K. Samaria
2008	Dr. Rajendra Prasad	Dr. J. K. Samaria
2009	Dr. K. P. Govindan	Dr. J. K. Samaria
2010	Dr. S. K. Katiyar	Dr. J. K. Samaria
2011	Dr. Pranab Baruwa	Dr. J. K. Samaria
2012	Dr. Narayan Mishra	Dr. J. K. Samaria
2013	Dr. A. G. Ghoshal	Dr. J. K. Samaria
2014	Dr. M. Sabir	Dr. J. K. Samaria
2015	Dr. N. K. Jain	Dr. J. K. Samaria
2016	Dr. Virendra Singh	Dr. J. K. Samaria
2017	Dr. Surya Kant	Dr. Rajesh Swarnakar
2018	Dr. S. K. Luhadia	Dr. Rajesh Swarnakar
2019	Dr. Sudhir Chaudhri	Dr. Rajesh Swarnakar
2020	Dr. D. J. Christopher	Dr. Rajesh Swarnakar
2021	Dr. Digamber Behera	Dr. Rajesh Swarnakar

Previous NAPCON Conference Venues

Year	Conference	Date & Venue
1981	1st NCRD Conference	11-12 September, 1981 Hotel President, Mumbai
1982	2nd NCRD Conference	2-4 December,1982 Hotel Taj Intercontinental, Mumbai
1983	3rd NCRD Conference	16-17 December, 1983 Chennai
1984	4th NCRD Conference	Trivandrum
1985	5th NCRD Conference	13-14 December, 1985 S.M.S. Medical College, Jaipur
1986	6th NCRD Conference	12-13 December, 1986 Mumbai
1987	7th NCRD Conference	17-18 December, 1987 Park Hotel, Kolkata
1988	8th NCRD Conference	5-6 January, 1989 Goa
1989	9th NCRD Conference	17-18 December, 1989 Hyderabad
1990	10th NCRD Conference	12-13 December, 1990 Mumbai
1991	11th NCRD Conference	21-21 February, 1991 Calicut
1992	12th NCRD Conference	14-15 March, 1992 New Delhi
1993	13th NCRD Conference	3-6 January, 1994 Chennai
1994	14th NCRD Conference	2-3 December,1995 Pune
1995	15th NCRD Conference	1-4 December, 1995 St. John Hall, Jamashedpur
1996	16th NCRD Conference	5-8 December, 1996 Taj & West Hotel, Bangalore
1997	17th NCRD Conference	16-18 December, 1997 Hotel Clark, Varanasi
1998	18th NCRD Conference	5-8 November, 1998 Hotel Ranvir Classic, Jalandhar
1999	1st NAPCON	17-19 November, 1999 Ashok Hotel, New Delhi
2000	2nd NAPCON	14-17 October, 2000 G.S.V.M. Medical College, Kanpur

2001	3rd NAPCON	7-11 November, 2001 Taj Mahal Hotel, Mumbai
2002	4th NAPCON	20-24 November, 2002 B. M. Birla Auditorium, Jaipur
2003	5th NAPCON	12-16 November, 2003 The Residency Awanashi Road, Coimbatore
2004	6th NAPCON	16-21 November, 2004 B. J. Medical College, Ahmadabad
2005	7th NAPCON	16-20 November, 2005 Science City Auditorium, Kolkata
2006	8th NAPCON	1-5 November, 2006 Government Medical College, Nagpur
2007	9th NAPCON	22-25 November, 2007 PGIMER, Chandigarh
2008	10th NAPCON	6-9 November, 2008 C.M.M.M.U. UP, Lucknow
2009	11th NAPCON	5-8 November, 2009 Kadavu Resort, Calicut, Kerala
2010	12th NAPCON	26-29 November, 2010 Jodhpur
2011	13th NAPCON	27-30 November, 2011 Habitat World India Habitat Centre, New Delhi
2012	14th NAPCON	17-20 November, 2012 Hotel Swosti Premium, Bhubaneshwar
2013	15th NAPCON	27-30 November, 2013 Sri Ramachandra Medical College & Research Centre, Chennai
2014	16th NAPCON	21-23 November, 2014 Hotel Taj, Agra
2015	17th NAPCON	4-6 November, 2015 B. M. Birla Auditorium, Jaipur
2016	18th NAPCON	25-27 November, 2016 Hotel Grand Hyatt, Mumbai
2017	19th NAPCON	15-19 November, 2017 Science City Auditorium, Kolkata
2018	20th NAPCON	29th November - 2nd December 2018 Gujrat University & Conventions Centre, Ahmedabad
2019	21st NAPCON	21-24 November 2019 Hotel Grand Hyatt , Kochi, Kerala
2020	22nd NAPCON	27-31 January, 2021 Virtual Conference
2021	23rd NAPCON	31st March to 3rd April,2022 Trade Facilitation and Exhibition Centre, Varanasi

ICS Websites and Social Media Report

Indian Chest Society On Social Media

The Indian Chest Society has been continuously evolving to reach a wider audience and give it's members a bigger platform to connect with like minded individuals all over the world.

One medium to achieve this has been social media - a platform to connect people across ages, geographies, and more! Branching out to a newer approach to reach members and the general public are platforms like **Facebook, Instagram, Twitter** and two new additions to the ICS social profiles - **YouTube and Spotify**.

Emailers & Newsletters

All members of ICS receive regular updates via our newsletters and emails. Our MailChimp audience currently consists of **3000+ members** who receive updates on webinars, conferences, abstract submissions, election updates and more.

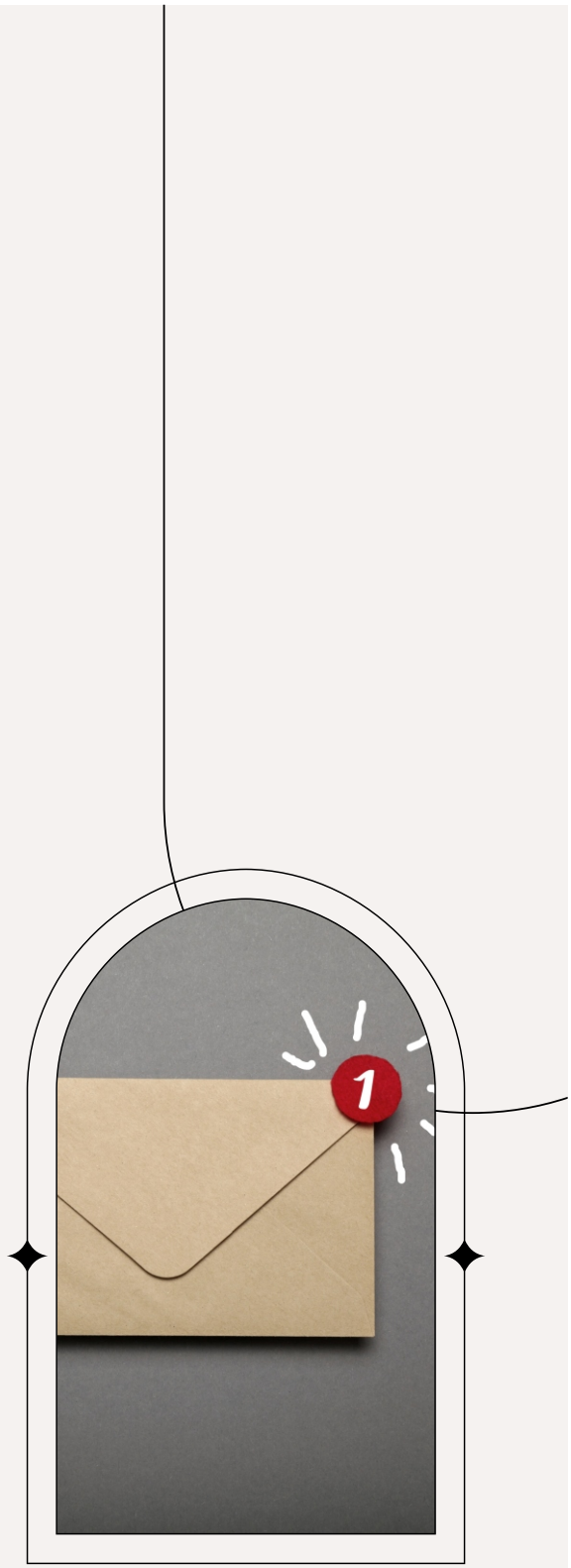
All **members are encouraged to sign up** for our newsletters so as to be updated on all aspects of the Indian Chest Society and its activities.

Facebook

Facebook has been one of the constant streams of audience retention and engagement for ICS. The ICS Facebook page reaches almost **10,000 users**, with an average of **200 new followers per month.**

Instagram

Instagram is another platform for regular updates on webinars, conferences, in addition to images, videos and more to keep our followers constantly updated. The ICS Instagram account **reaches over 3500 users**, with an active following of 144 users.



Twitter

Bite sized updates of all events, webinars and more now on Twitter. Users can connect with like minded individuals via the ICS Twitter handle where we currently engage with 378 followers. We have **added over 40 new followers** from Oct 2021 to Feb 2022.

YouTube & Spotify

The latest additions to our social media YouTube and Spotify. Making webinars, talks and panel discussions available to view at any time with the new ICS YouTube channel which currently has **146 active subscribers and 803 average views since Oct 2021**, with over 80 hours of content viewed.

Also bringing in a new way to reach our audience on the go - podcasts! Spotify has enabled ICS to share valuable insights, news and more to our listeners. **All webinars, talks, interviews, snippets and more are available in audio format on our Spotify channel.**

Expanding horizons to reach new audiences and enable our society to connect across platforms and formats via social media has been our goal and we hope to keep growing and connecting more individuals as well as the general public.

Through our platforms, we can collectively raise awareness about the various impediments, news, updates and more in the medical field and we hope to keep receiving your support for the same.

Indian Chest Society Website Updates

www.icsorg.net | www.icslungforum.in

We all know the importance of having a website. But simply having the site up and running is not enough. Regularly updating and maintaining the site is crucial to ensuring that our site is running at full capacity and members our are benefited.

We would love to share some of the benefits we received because of monthly updates on our websites:

Security

Security is the main reason that website maintenance is so important. We ensured that our site is keeping up with software patches and security updates. Failing to do so gives hackers the chance to steal data from our site.

Visitors Experience

Regularly updating our site with sharable content such as upcoming events, image galleries, and articles gave our audience an opportunity to engage more with the society and its members. Actionable items such as a pop up assured users enrolled to seminars and webinars. A well-maintained website also helped to promote Indian Chest Society brand, work, and mission. We are also in the process to remove information that is out-of-date and conduct a site audit to track issues and errors on our site.

Indian Chest Society

New ICS & Lung Forum Website Coming Soon...

ICS is exploring digital solutions to improve engagement with their member networks. Included in our list of challenges is the ability to drive event engagement, support for association initiatives, better interactions with members and driving value to their network. With the new websites, we will have the opportunity to reach members in real-time, on-the-go and gain new referrals and advocacy.

To develop an effective ICS website, the new website must be designed well, be usable and attractive to members and other site visitors. We are designing the websites that iterates to make our community, membership website work for business and member community.

ICSLUNGFORUM.IN

OLD WEBSITE	NEW WEBSITE	ADVANTAGE
Poor structure	New professional layout	Easy for the users to navigate within the website
Not SEO friendly	New website built with SEO compatibility	Increases organic reach of the public forum website
Only Hindi Language	More than 5 languages	Users can now access website with different languages. More languages can be added in future
Slow loading time	Loads in less 3 seconds	Better load time increases average user time on website
Not mobile friendly	Mobile compatible	Users can now easily access website from mobile

ICSORG.NET

OLD WEBSITE	NEW WEBSITE	ADVANTAGE
More than 3 year old website	Professional design	Easy for the users to navigate within the website
No directory for members	ICS Members only directory	This will allow all ICS members to connect with each other
Old membership form	A complete registration module	A new member can directly register as a member with easy sign up form. This will be integrated with popular payment module
No member login	Member profile and login	Members will be able to login to their profile and access members only data like articles, submissions, webinar and event data
Only link to Events and Webinars	Create events and webinars	ICS will now be able to create events and webinar pages. Members will also be able to register and make online payments for events and webinars
No option to upload articles and abstracts	Members can now send requests to upload articles and submission from website	Website admin will receive these requests in backend and can approve or disapprove them
No courses or workshops	Courses and workshops will be listed	Members can enrol for various courses and workshops from new website. Online payment will also be integrated

Congratulation to all the NAPCON 2021 Award Winners

ICS LIFE TIME ACHIEVEMENT AWARD WINNER

Dr. Rajendra Prasad

ICS ORATION AWARD WINNERS

Dr. Raja Dhar
(Dr. K.J.R. Murthy Oration Award)

Dr. Santosh Kumar
(Dr. O. A. Sarma Oration Award)

Dr. Ravi Mehta
(Dr. C. V. Ramakrishnan Oration Award)

Dr. D. J. Christopher
(Dr. S. N. Tripathy Oration Award)

ICS FELLOWSHIP TITLE (FICS) AWARD WINNERS

Dr. Amita Nene, Dr. Deepak Agrawal, Dr. Deependra Rai, Dr. H. Paramesh
Dr. Nitin Goel, Dr. Prashant Chhajed, Dr. Ravindra Sarnaik, Dr. Zuber Ahmed

ICS LUNG INDIA AWARD WINNERS

Dr. Saurabh Mittal
Best Original Article

Dr. Zarir F. Udwadia
Best Letter to the Editor

Dr. Vijay Hadda
Best Reviewer

Selected Abstracts for DR. J. C. KOTHARI YOUNG SCIENTIST AWARD

Dr. Danny Prasad, Dr. Varsha Raj Meena, Dr. Pushpak Goyal, Dr. Deesha Ghorpade
Dr. Amrutraj Zade, Dr. Priya Sharma, Dr. Sathish Kumar M., Dr. Kolla Madhuri

BEST STATE CHAPTER AWARD

RAJASTHAN

Your feedback and suggestions are welcomed @ sakshi.deshmukh@icsorg.net or visit our website www.icsorg.net

API Initiated Therapy Specific Recommendations for Teleconsultation in Pulmonology Practice

Editors in Chief :

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Dr. S. Arulrhaj
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Padmashree Prof. D. Behara
Dr. Parvaiz Koul
Dr. Amita Nene
Dr. Rajesh Swarnakar

Background :

The current COVID-19 pandemic has brought to the forefront the importance of remote teleconsultation to safeguard the health of both the healthcare provider and patient. Telehealth is defined as *"The delivery and facilitation of health-care services including medical treatment, providing patient and care-provider education, disseminating health information and supporting self-care, via telecommunications and digital communication technologies."*[1]

WHO has adopted the following description of telemedicine : *'The delivery of health care services, where distance is a critical factor, by all healthcare professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of healthcare providers, all in the interests of advancing the health of individuals and their communities'.*[2]

In general, telemedicine is used to denote clinical service delivered by a Registered Medical Practitioner while telehealth is a broader term for the use of technology for health and health related services including telemedicine.[1]

Information and communication technologies (ICT) have great potential to address some of the challenges faced by both developed and developing countries in providing accessible, cost-effective, high-quality health care services. Telemedicine uses ICT to overcome geographical barriers, and increase access to health care services.[2]

The main challenges in face-to-face consultation alone in pulmonology practice include :

1. Risk of infection in pandemic situations like COVID -19
2. Shortage of pulmonologists
3. Distance to be travelled by the patient or physician to access/provide care
4. Inability of elderly, frail, and the differently abled patients to come to the healthcare settings

The COVID 19 pandemic has resulted in an unprecedented situation that was not foreseen. This has added a new dimension to the difficulties in accessing healthcare. Telemedicine has risen to fulfill some of the needs for remote consultation. While the traditional consultation, which involves face to face contact between the physician and the patient is important and cannot be replaced, it is likelythat telemedicine may play a larger role in the post pandemic world.

The processes involved in telemedicine

The key components required for effective tele-consultation include :

1. a process for accurate data collection
2. an electronic medical record for data incorporation and remote transmission
3. a set of protocols for data analysis
4. a variety of communication tools to permit effective dialogue between patients and health care providers, and
5. a system for automatically flagging and providing feedback for outlier data.[5]

Tele-consultaon can be conducted using any of the different modalities listed below

- Telephonic consultation
- Chat mode
- SMS
- Video consultation

A full-fledged telemedicine service uses an approved EMR (Electronic Medical Record) where case records, images, investigations, and tele-consultation notes can be stored and retrieved. A good video camera must be used for the interaction. Peripheral medical devices located remotely can be controlled and results obtained in real time.[3]

The PROs and CONs of teleconsulting

The Pros :

1. Gives access to healthcare services in remote areas and to those with mobility issues such as the elderly and the bed-ridden.
2. It has the power to overcome geographical barriers to provide healthcare services.
3. It may reduce healthcare spending.
4. It may save time for the patient and caregiver.
5. A medical practitioner or a hospital may consult with different specialists, irrespective of their location.
6. It may the patients to engage with their healthcare providers more frequently, at their convenience, which may result in a better healthcare worker-patient relationship.
7. It may reduce travel time and costs related to this.
8. Overall, telemedicine has the potential to provide better healthcare services to the masses.

The Cons :

1. Telemedicine requires infrastructure and technical training.
2. To make a complete diagnosis, physical examination needs to be done, which is not possible during a Telemedicine consultation.

3. It may reduce direct interaction of patients with doctors because online interactions are Impersonal.
4. There is a lack of a standardized format to the interaction. Interaction often focusses on the patient's complaint rather than objective information about overall health status.
5. There is no validated consent form for either opting for or refusing the service.
6. Telemedicine is still not included in the medical curriculum.
7. Besides ambiguity regarding responsibilities in case of negligence, there are concerns about privacy, confidentiality, security of patient information, and treatment.
8. There is no clarity with respect to medicolegal issues arising out of telemedicine.
9. Currently, no health insurance policy in India factors in telemedicine.

Defining the place of teleconsultation in pulmonology practice

Examples of certain disease states, are tabulated as chronic and could be managed by telemedicine and other disease states, mostly acute and cannot be managed by teleconsultation are tabulated. (Table 1).

	Conditions that cannot be managed by Teleconsultation	**Conditions that could be managed by Teleconsultation**
Pulmonology	• Status asthmaticus • Pneumonia • Pneumothorax • Nontuberculous mycobacterial Pulmonary disease • Pleural effusion	• Follow up visits of the following Conditions : • Asthma • Interstitial lung disease • COPD • Tuberculosis • Pulmonary Cystic fibrosis • Neoplastic disease • Obstructive sleep apnoea • Chronic pulmonary Thromboembolism • Pulmonary fibrosis • Sarcoidosis

*Generally, the initial diagnosis of most respiratory disorders requires physical examination and investigations in a healthcare setting and cannot be carried out by teleconsultation alone.

Investigations that could be done at the place of convenience of the patient & reported to the physician by teleconsultation :

1. CBC
2. Serum IgE
3. Metabolic parameters
4. Blood biochemistry & Other blood investigations
5. Microbiology tests: Sputum smears & culture for routine bacteria and MTB etc.*
6. Spirometry*
7. Home sleep studies*

8. Imaging - chest X-ray, CT scans etc.

*Aerosol generation is involved in these tests and due precautions should be in place

Teleconsultation in chronic asthma management

Assessing asthma severity

Currently as per GINA guidelines 2021 Gina, asthma severity is assessed retrospectively from level treatment required to control symptoms and exacerbation. It can be assessed once the patient has been on controller treatment for several months.

The severity of asthma is classified as the following :

- Mild asthma
- Moderate asthma
- Severe asthma

Assessment of asthma control at home[4] :

- ACT
- Peak flow measurement

The patients should be managed as per standard guidelines-GINA[4]

Teleconsultation for COPD

COPD should be considered in a patient who has dyspnoea, chronic cough or sputum production, and/or a history of exposure to risk factors for the disease.

GOLD guidelines[5] recommends spirometry test to establish a diagnosis of COPD, if any of these indicators are present in an individual over age 40 :

- Progressive dyspnoea
- Chronic cough
- Recurrent wheeze
- Chronic sputum production
- Recurrent lower respiratory tract infections
- Presence of the following risk factors :
  - host factors (such as genetic factors, congenital / developmental abnormalities, etc)
  - tobacco smoke (including popular local preparations)
  - smoke from home cooking and heating fuels
  - occupational dusts, vapours, fumes, gases, and other chemicals
  - family history of COPD and/or childhood factors:
  - for example, low birth-weight, childhood respiratory infection, etc.

Following assessment severity assessment is made on the basis of Spirometry and the refined ABCD assessment tool, based on symptoms and exacerbations.

After carefully ruling out the differential diagnoses, a diagnosis of COPD is made. Appropriate pharmacologic and non-pharmacologic treatments should be instituted. Regular patient follow ups are required and appropriate treatment adjustments should be made. The treatments should be instituted as per GOLD guidelines.[5]

Teleconsultation for Tuberculosis treatment :

In many countries restriction of movement has been imposed for much of the population in response to the COVID-19 pandemic, this has negatively impacted access to health services for diseases like TB. The case detection also dropped precipitously. Tuberculosis treatment, which requires comprehensive care, can be delivered effectively through teleconsultation. The details that should be discussed during teleconsultation would include :

1. Information on current symptoms like fever, cough, sputum, anorexia, weight loss, chest pain breathlessness, hemoptysis, presence of swelling in the neck or other parts of the body, along with the duration of each of these symptoms.
2. Past history of TB with details of treatment consisting of names of medicines, their duration, if taken regularly and if experienced any side effects while taking them.
3. History of exposure to any drug resistant TB cases.
4. History of addictions and presence of any comorbid conditions.
5. Once all the necessary tests including sputum, blood and imaging reports are available, the Patient
   i) Should be informed if the TB is sensitive or resistant
   ii) Should be explained the precautions to be taken to prevent spread of infection to other household members
   iii) Instructions should be given as to how to take the prescribed medicines, explaining the common side effects
   iv) Importance of taking medicines regularly should be explained
6. On follow up consultation, the response to treatment should be assessed and occurrence of any new symptoms should be verified.
7. Patient should be asked specific questions about drug side effects and about the compliance to treatment.
8. Ensure that Diabetes and other comorbidities are well managed.
9. Order the follow up blood, sputum and imaging tests and ensure reports are available digitally for the next teleconsultation.
10. Advise about nutritional and psychologic support and importance of drug compliance must be emphasized during each teleconsultation.
11. The patient should be advised to fix an urgent appointment if :
    - The patient has symptoms like increasing breathlessness, sudden acute chest pain, significant hemoptysis or oxygen desaturation.
    - the patient experiencing is experiencing new symptoms which would require re-evaluation.

Teleconsultation for Lung Cancer

Studies have shown that telehealth can be valuable in the management of many chronic diseases. Patients with lung cancer, which requires comprehensive, multidisciplinary care, can derive benefit from care delivered from a distance through teleconsultation.

Patients of lung cancer who could safely receive care via teleconsultation include :

1. Asymptomatic patients newly diagnosed with early-stage lung cancer, waiting for treatment commencement.
2. Established lung cancer patients with symptoms related to their treatment.
3. Those patients who require treatment for the psychological symptoms of lung cancer.
4. Follow-up consultations for patients who have completed treatment at low risk for relapse.
5. Postoperative consultations for patients with no surgical complications.
6. Those who need pulmonary rehabilitation for symptoms related to cancer or its treatment.
7. Telemedicine may also work well in the practice of palliative care, which focuses on symptom management, improving coping mechanisms, increasing patients' understanding of their disease, and end-of-life care.

The following patients of lung cancer should see the doctor in person :

1. Patients with lung cancer who are at high risk for deterioration, This include patients with a new diagnosis of lung cancer and disease-related symptoms (like shortness of breath, pain, or hemoptysis).
2. Patients with suspicion of advanced disease.
3. Patients who require administration of treatment (like radiation or IV chemotherapy or surgery) also need to be seen in person.

Teleconsultation for patients with Interstitial Lung Disease (ILD)

Interstitial lung diseases (ILDs) comprise a heterogeneous group of acute and chronic lung diseases that cause progressive scarring of the lung tissue, compromising respiratory function and blood oxygenation. The commonest forms in India are hypersensitivity pneumonitis and idiopathic pulmonary fibrosis (IPF), which in the vast majority of cases affects the older population.

Public health officials recommend that patients in the higher risk category should reduce the risk of

being exposed to SARS-CoV-2. The purpose of interstitial lung disease treatment is usually to slow or stop the progression of disease, improve quality of life and in some cases, reverse the ILD. Tele-consultation can be useful for the following in a patient of suspected/diagnosed ILD :

1. Clinical history of the patient : Diagnosis is suspected based on clinical features of dyspnoea, cough and effort intolerance. It is possible to elicit a history of exposures based on the patient's home and workplace environment.
2. Features suggestive of an underlying disease, can be elicited and blood investigations for ruling out a secondary cause of ILD if clinically suspected can be undertaken via Telemedicine.

3. The imaging of the patient, especially HRCT scan of the chest can be assessed by the treating clinician. Remote MDD can be employed for arriving at the diagnosis of a particular ILD in a patient which defines the subsequent management of the patient. It has been found to be feasible.[7]
4. Baseline assessment of effort tolerance like a 6-minute walk distance test is possible as well assessment of the oxygenation status at baseline and upon exertion. This should be undertaken only if the effort intolerance or baseline saturation does not preclude the test.
5. Guidance about life style modification like cessation of smoking and avoidance of home and workplace exposures.
6. Guidance about treatment and any adverse effects related to agents like corticosteroids, antifibrotics like pirfenodone or nintedanib.
7. Oxygen therapy.
8. Video guided pulmonary rehabilitation and exercise programs tailored to patient's needs.
9. Patient needs to be appraised of the features for an acute exacerbation which would include increase in symptoms, reduced effort tolerance, increase in respiratory rate, drop in the oxygen saturation, or an increased demand for oxygen if the patient is on oxygen. These would mandate a visit to the medical facility.

It is important to emphasize that a tele-review is not equivalent to an in-person assessment fordiagnosis or management. However, although telemedicine visit might be a useful adjunct for some cases, the benefits of important services such as specialist nurses and support groups may be less available to those not completing an in-person visit.

Teleconsultaon for Post COVID 19 Care:

Post Covid care can be delivered through teleconsultation. This may include clinical assessment and advice and pharmacotherapy, psychological support, nutritional advice and advice on exercise and physical fitness. Tele-pulmonary rehabilitation can be effectively offered for post-COVID patients.

For these patients, it may boon to avoid finding transport to come to healthcare centers, which would be most challenging during pandemic times on account of lock downs and travel restrictions.

Telerehabilitaon for patients with COPD & other chronic respiratory diseases

Telerehabilitation shall be defined as "telehealth application using telecommunication technologies to administer the rehabilitation services so that patient receives supervised rehabilitation at home, while the rehab specialist is at hospital." Respiratory telerehabilitation (RTR) involves reinforcement of exercise dosing, follow-up, physical activity, nutritional and psychological counseling through telephone, social media such as E-mail, Twitier, and Facebook, activity monitors communicating to the central hospital servers, and video conferencing to the pulmonary disabled patients.

The primary aim is to provide equitable access to a rehabilitation program. Recent literature has suggested that tele-rehab is as effective as supervised inpatient pulmonary rehab programs by overcoming barriers to both inpatient and out- patient hospital based PR programs. The advantages include : reduction of caregiver burden, reduction of cost , improved compliance,

freedom from hospital acquired infection homely environment, takes away need for of transportation, provisions of same level of expertise to the monitoring of physical activity monitoring and counseling.

Home-based PR (HPR) has been shown to improve dyspnea, functional capacity, ADL ability, fatigue, sleep, depression, and quality of life. However, HPR can be hampered by lack of internet connectivity and technical glitches.

The telerehab network components are a patient workstation, rehab therapist workstation, and the Internet speed of 8 Mbps/s for streamlining the video conferencing.

Typical components of respiratory telerehabilitation

This simulated supervised pulmonary rehab session consists of monitoring the intensity of exercise, saturation, heart rate, and blood pressure. Any adverse events shall be promptly observed, and exercise or nutritional counseling shall be given promptly. The exercise adherence shall be monitored through the number of sessions attended, exercise duration and intensity of exercise sessions. This exercise adherence could be transferred to real-life ADL such as cooking, industrial activities such as pulling, pushing, lifting, child rearing, playing or leisure-time activities through teleconferencing, and functional simulation. At the end of 8–12 weeks of supervised telerehab through teleconferencing, would have covered the vocational and functional training and the training through real-life household functional and occupational activities.

In future, TR may become an efficient alternative to conventional hospital based PR.

Technological requirements

Hardware :

- There are minimal requirements of basic hard ware. Video visits can be performed using any mobile device (smartphone or tablet), laptop, or desktop so long as the device has audio and video capabilities, can connect to the Internet, and can download so..ware applications.
- For an optimal set up the recommendations include
  - An HD video camera that connects to a laptop or desktop via USB.
  - a single wide-screen monitor such as a 38. LCD monitor so that several application windows can be open simultaneously. The wide monitor will better facilitate eye contact with the patient while looking at other application. It will help facilitate simultaneous viewing of the patient and his/her shared data.
- Noise cancelling head phones with a high-quality built-in microphone to block background noise if the physician is working in a noisy area.

Practical tips

- Test camera placement to facilitate the best possible eye contact with the patient during the video visit.
- Test the lighting in the room to ensure that it is soft and even, no harsh bright lights or shadows cutting across the physicians' face, and there should be no natural light coming from behind or the side, which could interfere with video quality.

Video Software :

Many videoconferencing software products must have the requisite security and privacy protections to be The Health Insurance Portability and Accountability Act (HIPAA) compliant. HIPAA sets security standards for hospitals and private practices to protect sensitive patient data Protection.

Practical tips

- Patients may be required to download the accompanying software application, or to run a temporary application during the encounter.
- Patients must receive a separate link or invitation to the video-conference session and then independently download and open the video-conference application.
- Providers should carefully consider the need for additional team members - such as nurses, dieticians, and/or social workers - as well as the ability to ensure privacy and confidentiality before choosing to perform video visits at a location away from the clinic.
- Patients will also need to complete training and testing for the video software application to ensure that they have the right application downloaded, that the connection will work on their devices, and that they have sufficient data bandwidth to complete a video visit.

Scheduling Telehealth Visits

- Teleconsultation providers must plan their scheduling templates to identify when these visits will be offered.
- Schedule video visits in a separate block from in-person visits, either at the start of the day or after lunch.
- Decide how follow-up visits will be scheduled after video encounters since patients will not complete an in-person check-out process. Some options are for the clinician him/herself to discuss follow-up dates during the video visit and send a message to office staff, for a staff member to contact the patient shortly after the visit.

Practical tips

- Video visits tend to be of shorter duration and run more on-time compared with in-person Visits.
- Patients tend to show up on-schedule due to lack of transportation challenges, and no time is needed for check-in, vital sign, and point-of-care HbA1c measurements, or downloading data from patient devices.
- To save on screen time , ask the patient to upload reports one day prior to teleconsulting. Review the reports before the meeting in your free time.
- If possible institute a pre-visit reminder program for reminding patients about their appointment.
- Ask the patient to take weight and height measurements one day prior to appointment if possible and send details.

Prescription of drugs

The prescription drugs are categorized, based on what can and cannot be prescribed under a telemedicine consultation. Please refer to the Drugs and Cosmetics Act ,1940 and Rules, 1945 As amended up to the 31st December, 2016.[8]

Prescription writing

- The prescription should be in pdf format.
- The prescription can be e-mailed to the patient.
- The prescription must have the name and registration number of the doctor.

Components of the prescription

The doctor must provide photo/scan /digital copy of a signed prescription or e-Prescription to the patient via email or any messaging platform. Please note that a doctor can transfer the prescription to a pharmacy only if he/ she has the explicit consent of the patient.

Invoice for fees : Doctors can charge appropriate fees for teleconsultation. A receipt or invoice should be given to the patient against the fees.

A sample Tele-consultation patient assessment form is attached :

Teleconsultation patient assessment form :

- Hospital / Clinic name _____
- Doctor name _____
- Patient name _____
- Age / Sex _____
- Medical record number _____
- Address :
  - Postal _____
  - E-mail address _____
- Clinical notes _____
- Nutritional assessment
  - Height _____ ■ Weight _____ ■ Built _____
  - Any obvious signs of malnutrition _____
- History and diagnosis _____
- Drug allergy reported _____
- Drug Prescription Form _____
- MR number _____
- Patient name _____
- Rx
  - Dosage form _____ ■ Generic drug (BRAND name) _____
  - Strength _____ ■ Route _____ ■ Frequency _____ ■ Duration _____
- Instructions _____
- Follow up advice _____
- Investigations advised _____
- Date and Time _____
- Signature _____
- For future use of the patient _____
- Online appointment number _____

DO's and DON'T's for Doctors practicing teleconsultation

The Do's

1. **DO *confirm the patient's identity during first consultation***

   The doctor should confirm the patient's identity to his/her satisfaction by asking patient's name or age or address or email ID or phone number or any other identification that may be reasonable.

   It is not mandatory to identity the patient during a follow-up teleconsultation with a known patient, especially if the doctor is communicating through the registered user id, email id or phone number. However, in case of doubt, the doctor should confirm patient identity as during the first consultation.

2. **DO *check the caregiver identify and authorization***

   The caregiver's identity and authorization should be checked by the doctor before offering teleconsultation. In the case of minors, the identity of the caregiver should be confirmed.

   If the patient is not a minor or is not incapacitated, then a caregiver cannot consult on behalf of the patient unless he or she has a formal authorization such as a signed authority letter by the patient or his/her legal representatives (family members) or, where the caregiver is a family member himself or herself, if he or she has a document that verifies his or her relationship with the patient such as a government identity proof.

3. **DO *identify yourself as the Doctor consulting the patient before start of every Teleconsultation***

   A doctor should begin any teleconsultation by informing the patient about his/her name and qualification. This may be uncomfortable to be done every time, especially to a known patient. However, this is the requirement of Telemedicine Guidelines at present.

4. **DO *display his/her registration number at every touch-point with patient***

   A doctor who provides teleconsultation is required to display his/her registration number provided by respective State Medical Council on his/her prescription, website, electronic communications (Message /E-mail etc.) and fee receipts given to his/her patients.

5. **DO *maintain patient records of teleconsultation***

   For teleconsultation, it is mandatory for doctors to prepare, maintain and preserve the patient's records (e.g. case history, investigation reports, images, etc.), copy of prescription issued and proof of teleconsultation (e.g. phone call history, email records, chat/ text record, video interaction logs etc.). While no time period is prescribed for how long such records are required to be preserved, it is generally recommended to maintain these records for three Years.

6. **DO *follow the Limitation on prescribing medicines to patients***

   Avoid prescribing schedule H drugs.

The DON'T's

1. **DO NOT *continue with teleconsultation if it not appropriate***

   If the doctor is not satisfied with the information provided by the patient to provide specific treatment, i.e. prescription or health advice, then he/she should provide limited consultation as appropriate and refer the patient for an in-person consultation.

2. **DO NOT** ***disclose the patient's personal data or transfer it without written consent of the Patient :***

   Since teleconsultation happens on an electronic medium, the Indian law that protects personal information, including medical and health-related information of patients, squarely applies to doctors who provide teleconsultation and receive such information from patients. This is in addition to the ethical obligation to protect patient privacy that is recognized in the Code of Conduct. The most important thing to note here is that Doctors who provide teleconsultation should not disclose or transfer any information that may identify the patient without the prior written consent of the patient.

3. **DO NOT** ***deny emergency teleconsultation, but limit it for immediate assistance or first aid :***

   Emergency teleconsultation should not be provided remotely except when it is the only way to provide timely care. Even then, such emergency teleconsultation should be limited to first aid, life-saving measures, counselling and advice on referral. Every emergency teleconsultation must end with an advice to the patient or his/her carer for in-person interaction with a Doctor at the earliest.

The impact of teleconsultation

There are a number of benefits of telemedicine. It increases timely access to appropriate interventions including faster access and access to services that may not otherwise be available.

In India, providing In-person healthcare is challenging, particularly given the large geographical distances and limited resources. One of the major advantages of telemedicine can be for saving of cost and effort especially of rural patients, as they need not travel long distances for obtaining consultation and treatment.

With telemedicine, there is higher likelihood of maintenance of records and documentation hence minimalizes the likelihood of missing out advice from the doctor other health care staff. Conversely, the doctor has an exact document of the advice provided via tele-consultation. Written documentation increases the legal protection of both parties. Telemedicine provides patient's safety, as well as health workers safety especially in situations where there is risk of contagious infections.

Disasters and pandemics pose unique challenges to providing health care. Though telemedicine will not solve them all, it is well suited for scenarios in which medical practitioners can evaluate and manage patients. A telemedicine visit can be conducted without exposing staff to viruses / infections in the times of such outbreaks. Telemedicine practice can prevent the transmission of infectious diseases reducing the risks to both health care workers and patients. Unnecessary and avoidable exposure of the people involved in delivery of healthcare can to be avoided using telemedicine and patients can be screened remotely. It can provide rapid access to medical practitioners who may not be immediately available in person. In addition, it makes available extra working hands to provide physical care at the respective health institutions. Thus, health systems that are invested in telemedicine are well positioned to ensure that pa..ents with COVID kind of issues receive the care they need.

Record keeping to safeguard the physician

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.

Medicolegal issues

- *Doctor-patient relationship*

  Patients trust healthcare professionals while seeking treatment and confide in them. It is essential to maintain the trust of the patient to meet legal requirements. Healthcareproviders are obliged to establish good doctor–patient relationships.

- *Informed consent*

  Informed consent is an important medicolegal requirement while treating a patient. Consent should be obtained for any medical interaction, whether it is in-person or at a distance such as telemedicine and virtual consultation. Consent should be obtained for telemedicine interaction, transmission of data, treatment, monitoring and consultation. Further, it is important to clarify whether the medicolegal value of informed consent in telemedicine is the same or different with respect to traditional face-to-face interactions. There is enough evidence that in many special..es, virtual consultation such as video conference is clinically as good as an in-person consultation. Hence, informed consent can be taken traditionally and properly documented.

- *Privacy*

  The right to privacy has been an integral part of medical ethics and is supported by various codes including the International Code of Medical Ethics. Every individual has a right to privacy even in telemedicine. The health practitioner must maintain confidentiality regarding personal information of the patient even after his/her death.

  There are privacy breach concerns regarding the electronic transmission of medical information, particularly in the hospital setting. Risk points include the room in which patients are seated for teleconsultation, the room in which providers are located, local hard drives (both the ability to inadvertently store downloaded data and the possibility of other programs or browsers admitting viruses), USB port access, and printed materials that include private health information.

  Consultation with an information technologist is important for any providers considering adopting telehealth programs. Considerable effort has gone into certifying systems that are compliant with the Health Insurance Portability and Accountability Act. Once selected, the software employed should be updated regularly to maintain security.

- *Rights of patients*

  In traditional medical practice, certain rights of patients have been recognized, such as the right to get treatment, choose a doctor freely, change doctor at any stage of treatment, right of compensation, right of confidentiality, right of dignity, right of grievance redressal,

right of information and right to refuse treatment. The same applies to the practice of telemedicine and virtual consultation. The patient has a right to receive their medical record in the electronic format, to know standards and safety guidelines.

He/she has the right to be informed regarding authorization or registration status of the service provider and to know the various complaint processes which he/she can use in case he/she suffers any harm during the consultation.

- *Liability in civil negligence*

  Civil suits could arise out of a breach of contractual obligations between the telemedicine service provider and the patient/user. The Supreme Court of India has explained negligence as 'breach of a duty caused by the omission to do something which a reasonable man, guided by those considerations which ordinarily regulate the conduct of human affairs, would do, or doing something, which a prudent and reasonable man would not do. The integral components to prove negligence are establishment of duty and dereliction of duty, which are directly related to the damage caused.

- *Liability in criminal negligence*

  Criminal prosecution takes place before the criminal courts for grounds such as the commission of offences under any criminal statute, most notably the Indian Penal Code, 1860(IPC) where the negligence is 'gross' in nature and proven beyond doubt. The common charges faced by doctors and other providers of such services are causing death by negligence (Section 304-A of the Indian Penal Code [IPC]), endangering life or personal safety of others (Section 336 of the IPC), causing hurt by an act endangering life or personal safety of others (Section 337 of the IPC) and causing grievous hurt by an act endangering the life or personal safety of others (Section 338 of the IPC). Punishment includes imprisonment as well as fine under the relevant sections.*(The Indian Penal Code)*

- *Vicarious liability*

  In the provision of eHealth services such as telemedicine where there is an employer-Employee relationship, the employer could be proceeded against due to the principle ofvicarious liability if deemed liable for acts and omissions of the employee arising in course of his/her employment. The principle of vicarious liability does not apply to criminal prosecutions.

- *Liability under the Consumer Protection Act, 1986*

  The Consumer Protection Act (CPA) allows consumers to claim compensation from service providers in case there is a deficiency in the service provided. Consumers can file claims for defective products and unfair trade practices. Consumer forums have been set up at the district, state and national levels to hear such matters. The Supreme Court in the case of Indian Medical Association versus V. P. Shantha and others held that medical services would fall within the ambit of the CPA, provided the pa..ent is being charged for the service. One of the essential elements of a claim is the payment for the services, as the CPA excludes services that are rendered free of charge.

- *Reimbursement*

  Currently, there is no provision for reimbursement from medical insurance in telemedicine practice.

Laws in India Applicable to Telemedicine

Telemedicine is a blend of information and communication technologies (ICTs) with medical science. It has been recognized by the Government of India and included in various schemes and policies. Presently, the laws applicable to telemedicine in India are the laws governing the medical profession and information technology.

Some of the laws relating to the medical profession include

- the Drugs and Cosmetics Act, 1940, and Drugs and Cosmetics Rules, 1945.
- the Indian Medical Council Act, 1956.
- the Indian Medical Council (Professional conduct, Etiquette and Ethics) Regulations, 2002.
- the Clinical Establishments (Registration and Regulation) Act, 2010 ('Clinical Establishments Act').

The laws related to ICT include

- the Information Technology Act, 2000 (IT Act).
- the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011
- the Information Technology (Intermediaries Guidelines) Rules, 2011.
- Unsolicited Commercial Communications Regulations, 2007.
- Telecom Commercial Communication Customer Preference Regulations, 2010 ('TCCP Regulations').

Vaccines in Asthma / COPD patients

- Patients should take the annual influenza vaccine every year to protect against seasonal flu just prior to the flu season in that area. The latest recommended starins for vaccine must be used. Quadrivalent may be preferred over trivalent depending on availability & cost issues.
- Pneumococcal vaccine to protect against serious pneumococcal diseases specially in elderly COPD or with co morbidity. Patient may receive both vaccines Conjugate to be followed by polysaccharide after a gap of one year.
- In addition, all adults need : Tdap vaccine to protect against whooping cough and tetanus.
- Zoster vaccine to protect against shingles if the patients are 60 years and older (CDC).
- All COPD & asthma patients must be offered COVID-19 vaccines.

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How to get ICS Research Grant?

Dr. D. J. Christopher
Past President
Indian Chest Society

Research is a process of systematic inquiry that entails collection of data; documentation of critical information; and analysis and interpretation of that data/information, in accordance with suitable methodologies set by specific professional fields and academic disciplines. Research is the backbone of medical science and the practice of medicine. Apart from providing answers to things that are unknown, it plays an important role in assessing any tests that we want to perform on patients and discovering new treatments and optimizing the use of tests and treatments.

Among other things, a professional society like ICS would be judged on its ability to foster research. ICS had in the past provided adhoc funding for its members, however a structure and mechanism for facilitating research was missing. With a view to foster research in the context of the goals and objectives of the ICS, a research committee was set up. The society will initially provide funding and support for its life members to perform quality research. It is important to bring in the culture of research early when specialists are still in training. There are plans to reach youngsters in postgraduate education and create avenues and support for research. We hope this would be a landmark in the journey of the society.

Research committee members :
Dr. D. J. Christopher, CMC, Vellore (Chair)
Dr. Sahajal Dhooria, PGI, Chandigarh
Dr. Uma Maheshwari, St. Johns, Bangalore
Dr. Vijay Hadda, AIIMS, New Delhi
Dr. Sundeep Salvi, PURE Foundation, Pune
Dr. Shubhankar Kandi, Hyderabad

A. Eligibility for application of research grants from the ICS :

1. All life members of ICS are eligible to apply for research grants throughout the year
2. Any specific call for proposals would specify the eligibility of the applicants and the application time lines will be specified.

B. Submission process :

1. The application should be in the respective formats, uploaded on the research portal of the ICS website : eg. Observational trials, Randomized control trial
2. The applications will be addressed to the Chair, Research committee and send to the following id : icsresearchoffice@gmail.com

3. The application would be circulated to all the members and one of them would be nominated the job of a primary reviewer.
4. The committee meets to finalize evaluation.
5. The processing time is a maximum of 1 month.
6. Queries & suggestions from the Research committee are then returned to the applicant.
7. All queries should then be responded to and sent back to the Chair, Research committee
8. The recommendations for approval or rejection of funding will be made within 1 month after the receipt of the response to queries.

The research committee also took stock of all the funded trials and closed those that are completed or are not intending to continue. The list of such trials and the status of applications to the Research committee are as follows:

Completed Trials

Sr. No.	Title	Investigator	Started Date	End Date	UC Submitted
1.	Is chronic obstructive pulmonary disease in non-smokers a different phenotype?	Dr. S. K. Jindal	14/03/2018	31/12/2018	Yes
2.	The ACO-IND study : AN Epidemilogical prospective multicentre study of ACO diagnosis in patients previously diagnosed as COPD in INDIA	Dr. Neeraj Gupta	23/06/2019	31/12/2019	Yes
3.	Step-up step-down V/S step-in step-down approach in the management of bronchial asthma	Dr. Prahald Rai Gupta	NA	March 2020	Yes
4.	1. APBA India Registry 2. ILD Follow Up and Genomics Project 3. Sword Survey	Dr. Virendra Singh	NA	NA	Yes
5.	HPV Lung cancer (Returning back funds to ICS because this pilot study was not successful) - Cheque returned	Dr. DJ Christopher	Did not commence as pilot not successful	NA	
6.	Effect of Yoga integrating pulmonary Rehabilitation programme in improving functional capacity in Stable COPD	Dr. Vijayalashmi Thanasekaran	Abandoned		

Ongoing Trials

Sr. No.	Title	Investigator	Started Date	End Date	Balance (Rs.)
1	Diagnostic value of Endobronchial Ultrasound Transbronchial Needle Aspiration (EBUS TBNA) in management of mediastinal adenopathy in Indian Settings	Dr. Prashant Chhajed	01/10/2021	Ongoing	Ongoing
2	Sleep- Apnoea Indian Registry (s-air)	Dr. Raja Dhar	NA	NA	Ongoing

Grants Submitted- 2021-22

S.No.	Title	Investigator	Status
1	Post-COVID19fibrosis registry	Dr. Raja Dhar	Withdrawn
2	Deciphering the role of bronchoalveolar lavage based immune cells transcriptomics in Non-Specific Interstitial Pneumonia (NSIP)	Dr.Vijay Hadda	Provisionally approved
3	Development of 2-breathcare, a smart wearable mask for monitoring lung function parameters and concentration of environmental pollutants	Dr. Kuldeep S. Wadaskar	Not approved

INDIAN CHEST SOCIETY

Application Format for Grant for Multi-centric Research Project

1. **Title of the Research Project**
2. **Hypothesis and objectives :** Scope & significance of the project and its relevance to the National health issues
3. **Proposed research project summary (not exceeding 150 words)**
4. **Detailed research plan.** (Design, inclusion & exclusion criteria, sample size with appropriate calculations, detailed methodology and techniques to be employed for the project, including statistical methods any potential to obtain patents etc.)
5. **Investigators and institutions of the proposed project**

Investigators	Residential Address	E-mail	Mobile No.	Name of Institute	Address
Principal investigator					
Co-PI (1)					
Co-PI (2)					
Co-PI (3)					
Co-PI (4)					
Co-PI (5)					
Co-PI (6)					
Co-PI (7)					
Co-PI (8)					

6. **Duration of Research Project**
   i) Duration of the proposed project :
   ii) Estimated time for data analysis :
7. **Amount of grant-in-aid asked for**

Total	1st year	2nd year	3rd year
i) Staff			
ii) Contingencies Recurring Non recurring (equipment) Travel			
iii) Overhead charges			
Total			

8. Institution responsible for the research project

a) Name :
b) Postal address:
c) Telephone:
d) e-mail :
e) Details of Bank account
f) Name of person who will supervise project if PI leaves the project

9. The Institution where the study is being done should ensure that there is no financial conflict of interest by the investigators.

Note :

1. Ethics committee approval for the study will be obtained by investigators
2. Registration in Clinical trial registry will be done by investigators.
3. The biological samples will not be transported out of the country without proper permission.

Undertaking by investigator

1. I/We agree to submit within one month from the date of termination of the project the final report.
2. I/We agree to submit audited statement of accounts duly audited by the auditors as stipulated by ICS.
3. I/We will ensure that the publication arising from the project will have due acknowledgement of the support and financial contribution from the ICS.
4. I/We agree to submit (online) all the raw data (along with descriptions) generated from the project to the ICS within one month from the date of completion /termination of the project.
5. I/We agree to submit 6 monthly report of the progress of the study to the secretary of the ICS and ICS research coordinator.
6. I/We understand that it is our duty to inform the secretary of the ICS and ICS research coordinator of any patency that may arise from this project.
7. The study is not a clinical drug trial.

Signature of the:

a) Principal Investigator _____

b) Co-Investigator(s) _____

c) Head of the Department _____

Signature of the Head of the Institution with seal

BIODATA OF THE INVESTIGATORS (Attach separate sheet for each investigator)

1. **Name :** _____

2. **Designation :** _____

3. **Complete Postal Address, Telephone Number, Fax, e-mail etc.**

_____

_____

4. **Date of Birth :** _____

5. **Educational Qualification : Degrees obtained**

Degree	Institution	Field(s)	Year

6. **Experience**

Duration	Institution	Particulars of work done

5. **Major Research work done**

6. A. Research projects completed

   B. On-going projects

7. List your Important Pubmed indexed publications in the past 5 years :

8. List all your publications pertaining to the area of research:

ICS Travel Grants Calender

Sr. No.	Type of Conference	No. of Grants	Amounts Sanctioned	Last date for Receiving Applications (Every Year)	Results on or Before (Every Year)	Documents Required
1	ATS USA	TWO	Rs. 1,00,000/-	15th FEB	28th FEB	***Before -*** 1. Acceptance Certificate from ATS 2. Resume 3. Covering letter signed by the HOD 4. Age Proof
						After - 1. Certificate of Attendance 2. Poster/Paper Presentation Letter from ATS 3. Receipt of travel tickets
2	ERS EUROPE	SEVEN	Rs. 75,000/-	15th JUNE	30th JUNE	***Before -*** 1. ERS Application 2. Application forwarded by HOD 3. Resume 4. Selection Letter from ERS 5. Age Proof
						After - 1. Certificate of Attendance 2. Poster/Paper Presentation Letter from ERS EUROPE 3. Receipt of travel tickets
3	CHEST ACCP USA	TWO	Rs. 1,00,000/-	30th JUNE	15th JULY	***Before -*** 1. CHEST ACCP Application 2. Application forwarded by HOD 3. Resume 4. Selection Letter from ACCP 5. Age Proof
						After - 1. Certificate of Attendance 2. Poster/Paper Presentation Letter from CHEST ACCP USA 3. Receipt of travel tickets
4	Internation -al Workshop on Lung Health	TWO	Rs. 75,000/-	15th November	15th December	***Before -*** 1. IWLH Application 2. Application forwarded by HOD 3. Resume 4. Selection Letter from IWLH 5. Age Proof
						After - 1. Certificate of Attendance 2. Poster/Paper Presentation Letter from IWLH 3. Receipt of travel tickets

**Pls note that dates of submitting applicatons may vary due to unprecedented times.*
**Keep in touch with us at icsorg.net for latest.*

Whooping cough : Risks and challenges to chronic respiratory disease patients

The World population is aging. In early 1900s, countries had a relatively high proportion of children and a life expectancy of 60-65 years[1] However, according to a US Census report on world population, the percentage of the population aged 65 or older is expected to double between 2015 and 2050, from 8.5% (617 million) in 2015 to 16.7% (1,600 million) by 2050.[2] Over the last 50 years, the Indian population aged $\geq$ 50 years has quadrupled, exceeding 260 million persons in 2020, and is expected to increase more in the near future.[3]

Older adults are more susceptible to infectious disease as the immune system gradually weakens with age, a phenomenon called immunosenescence.[4] There are multi-faceted changes of the immune system due to aging with effects on innate and adaptive immunity, decline in cell-mediated immunity followed by secondary decline in humoral immunity.[5][6] Moreover, increasing age is associated with higher risk of chronic health conditions like chronic lung disease, diabetes mellitus, cardiovascular disease and hypertension.

It is important to keep people healthy as they age to maintain quality of life, maintain productivity, and decrease healthcare costs. Hence, Healthy ageing is the focus of WHO's work on ageing between 2015 - 2030. WHO defines healthy ageing as "the process of developing and maintaining the functional ability that enables wellbeing in older age."[7] Vaccination, along with appropriate lifestyle and healthcare interventions, provides an opportunity to live and age in good health.[8]

Vaccines were developed to control infectious diseases and to protect the most vulnerable. Hence, childhood immunization has traditionally been the focus of vaccination initiatives.[1] However, changing world demographics requires new vaccination strategies.[1] Recommending bodies such as CDC and ECDC have recommendations for vaccination of adults against Influenza, Pneumococcal disease, Tetanus, Diphtheria and Pertussis.[9][10]

While most physicians are aware of Influenza, Tetanus and Diphtheria vaccinations, Pertussis is still perceived by some as a childhood disease[11]

Pertussis in older adults and patients with pre-existing COPD / asthma :

Pertussis, more commonly known as 'whooping cough', is a highly communicable respiratory infection caused by the Gram-negative bacterium Bordetella pertussis. It is transmitted by airborne droplets[12].

Commonly thought of as a childhood illness, it is now known that pertussis can affect all ages. However, in adults, pertussis is often missed, misdiagnosed and under-reported.

Reasons for underdiagnosis are two-fold. Firstly, clinical features in adults are often atypical and non-specific.[13][14] The classical inspiratory 'whoop' one expects with whooping cough is frequently

absent. This was demonstrated in a study from Massachusetts, USA where only 41% of 936 patients presented with 'whoop'.[14] A meta-analysis of clinical features of pertussis in adults showed that symptoms such as paroxysmal cough and absence of fever had high sensitivity but low specificity, while inspiratory whoop and post-tussive vomiting had a low sensitivity but a high specificity.[13]

Limitations in timing and sensitivity / specificity of diagnostic tests also contribute to the under-diagnosis of pertussis. The three main modalities of laboratory confirmation include culture, PCR and serology. Culture has high specificity but a low sensitivity, PCR also has high sensitivity but variable specificity. Serology is generally used for diagnosis inlater phases of infection.[15] By the time most adults seek medical care, the time windows for culture and PCR have passed.[16]

Data from multiple countries show the proportion of pertussis cases is increasing in adults. Data from Sweden showed that in year 2000, 5.9% of pertussis cases were reported in adults > 20 years and 1.5% in > 50 age group. However, in 2018, 57% of pertussis cases reported in adults > 20 years and 17% in > 50age group.[17] Similarly, data from UK, Germany, USA, Denmark and Australia also show a significant proportion of pertussis cases reported in adults / older adults in recent years.[18][19][20][21][22]

Seroprevalence data from China, USA, Denmark, Poland suggest that the actual incidence of pertussis is estimated to be substantially higher than reported incidence[23][24][25][26]

Pertussis can have a serious impact in older adults. Mean duration of cough is 5 - 12 weeks in adults with loss of quality-adjusted life days 10 times higher than for influenza.[27][28]

Pertussis can also have a serious impact on patients with pre-existing respiratory conditions. A retrospective database analysis of 1313 COPD patients with pertussis compared to patients without asthma or COPDin the USA concluded that COPD more than doubles the risk of pertussis with a Relative risk (RR) of 2.53 (95% CI: 2.40-2.68).[29] Similarly, asthmatic patients are also at an increased risk of pertussis.[29] Pertussis infection in these patients could lead to worsening of their COPD or asthma and also leads to an increase in hospitalization and healthcare costs to the patient.[29]

Retrospective Database Studies from England showed that a pertussis diagnosis among asthma and COPD resulted in significant increases in health care resource utilization and direct medical costs across several months around diagnosis, suggesting lengthy diagnosis times and highlighting the need for prevention strategies.[30][31]

Pertussis booster vaccinations are important as neither protection after infection nor vaccine-induced protection is lifelong. Almost all adult pertussis cases occur in individuals who have previously been vaccinated in childhood.[32] CDC recommends Tdap vaccination (Tetanus, diphtheria and acellular pertussis, reduced antigen vaccine) for all adults and specifically recommends for all COPD patients. This recommendation has been added to the GOLD 2021 & 2022 report as well.[33][34] Older adults and those with respiratory diseases may lack awareness of their elevated pertussis risk. Raising awareness of disease-related risks and proactively recommending Tdap vaccination may improve coverage rates.[35]

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For Healthcare professionals only. Please report adverse event with any GSK product at india.pharmacovigilance@gsk.com. GlaxoSmithKline Pharmaceuticals Ltd. Dr. Annie Besant Road, Worli, Mumbai-400030.

PM-IN-BOO-JRNA-220001, DoP Feb 2022

gsk

Trusted leaders in Vaccines

Presents

Vaccination for individual with co-morbidities*,[1]

Fluarix Tetra

Inactivated Influenza Vaccine (Split Virion) IP

Inactivated Influenza Vaccine

boostrix

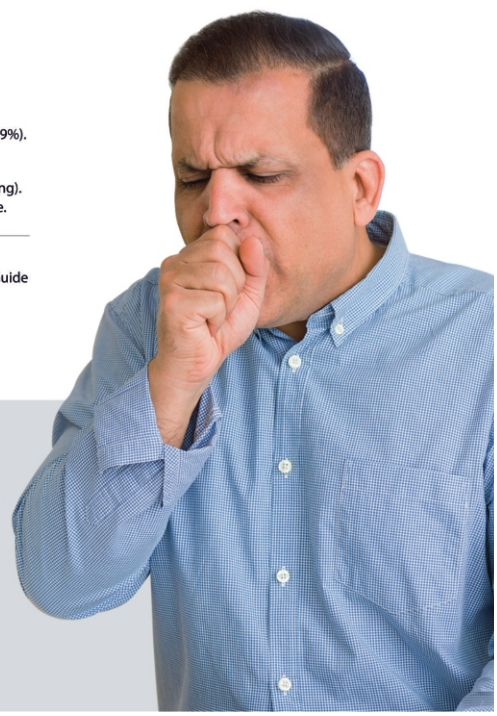
Diptheria, Tetanus and Pertussis (Acellular Component) Vaccine (Adsorbed, Reduced Antigen Content)

Tdap Vaccine

Tdap - Reduced Antigen content Tetanus Diphtheria Pertussis (Aceullar component) vaccine
*Co-morbodities include COPD, Asthma, Heart disease and Diabetes

Safety information[2] of Fluarix
The most frequently reported local adverse reaction after vaccination was injection-site pain (15.6% to 40.9%).

Safety information[3] of Boostrix
In clinical trials, the most common side effects were local injection site reactions (pain, redness and swelling). These reactions usually occurred within 48 hours of vaccination. All of them disappeared without sequelae.



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PM-IN-BOO-JRNA-220002, DoP Feb 2022

ICS Webinars

S. N.	Topic	Date	Speakers & Panelist	Moderators
1	Virtual Summit on Drug-Resistant TB - Test and Treat the DRTB	29.12.2021	Dr. Debkishore Gupta Dr. Digambar Behera Dr. Vikas Oswal Dr. Radha Munje Dr. Bornali Datt	Dr. Amita Nene
2	Influenza : Newer challenges	03.01.2022	Dr. Salah Al Awaidy Dr. Rajesh Swarnakar Dr. D. J. Christopher Dr. Parvaiz Koul Dr. Mine Durusu Tanriover Prof. Randeep Guleria Dr. Fatima	Dr. Raja Dhar
3	FEVER due to URTI - A new challenge in COVID Times	12.01.2022	Dr. Surya Kant Prof. Dr. Ashok Kumar Das	Dr. Rajiv Kovil
4	Third wave & the role of Antivirals	22.01.2022	Dr. D. J. Christopher Dr. Amita Nene	Dr. G. C. Khilnani
5	Coagulopathy in Covid	22.01.2022	Dr. G. C. Khilnani Dr. Rajesh V.	Dr. Agam Vora
6	Management of Pleural Effusion in Lung Cancer	27.01.2022	Dr. Hemant Malhotra Dr. Abhishek Bansal Dr. Rajiv Goyal Dr. Abhay Kapor Dr. Mansi Sharma Dr. L. M Darlong Dr. Ajay Yadav Dr. Nikhil Bansal Dr. Nipun Lamba Dr. Vanita Noronha Dr. Maheema Bhaskar	Dr. Ullas Batra
7	Management of Diabetes & Tuberculosis	30.01.2022	Dr. D. J. Christopher Dr. Ashok Kumar Das	Dr. Vijay Viswanathan
8	Fever in Recent Times : Is it just COVID?	10.02.2022	Dr. Agam Vora Dr. Dhruva Chaudhry	Dr. Agam Vora

S. N.	Topic	Date	Speakers & Panelist	Moderators
9	ALLERGY &Immunotherapy Module- Chapter1	25.02.2022	Dr. D. J. Christopher Dr. A. B. Singh Dr. Indranil Halder Dr Saibal Moitra	Dr. Rajesh Swarnakar
10	Tobacco Cessation in Indian Context	03.03.2022	Dr. S. K. Jindal Dr. Raja Dhar Dr. E. Vidhubala Dr. Pratima Murthy Dr. Rakesh Gupta Dr. Prabhat Mallik Dr. Suzanne Nethan Dr. Arvid Mathur	Dr. Rohan Bartake
11	CME : Lung cancer : Controversies to Consensus	12.03.2022	Dr. Raja Dhar Dr. Sushil Agarwal Dr. Raj Kumar Shrimali (UK) Dr. Robin Thambodorai (Kolkata) Dr. Vanita Nononha (Mumbai) Dr. Sujith Kumar Mullapally Dr. Peter Dickinson Dr. Srinivas Chilukuri Dr Ahmed Salem Dr. Vivek Agarwala (Kolkata) Dr. Moses Arun Singh (Kolkata) Dr. Chandrani Mallick (Kolkata) Dr. Bivas Biswas (Kolkata) Dr. Abhishek Basu (Kolkata)	Dr. Aju Matthew

ICS East Zone State Chapter

Table 1. : List of Chairman and Secretary ICS State Chapter (East Zone)

Sr. No.	State	Post	Name	Membership No.	Updated Contact Details
1	Orissa	Chairman	Dr. Narayan Mishra	L-70	2nd Lane, Gajapati Nagar, Berhampur, Ganjam, Orissa. E-mail : doctor_narayan@yahoo.com M : 09337 505646
2	Bihar	Chairman	Dr. Deependra Kumar Rai	L-1191	Assistant Professor Dept. of Pulmonary Medicine & TB All India Institute of Medical Sciences, Phulwaria Sarif, Patna (Bihar). E-mail : deependra78@gmail.com M : 07764 981421
3	Jharkhand	Chairman	Dr. Syamal Sarkar	L-528	201, Gulmohar, Residency States, Modi Compound, Lalpur, Ranchi-834 001 (Jharkhand) E-mail : syamalsarkar@yahoo.co.in M : 094313 91501
4	Assam	Chairman	Dr. Pranab Baruwa	L-903	GNB Road, Near Hanuman Mandir New Guwahati, Assam-781 020 E-mail : Barwapranab@yahoo.com M : 09864 06807
		Secretary	Dr. Jogesh Sarma	L-917	VIIL Jatia (Near L.P. School) P.O. Assam Sachivalaya Dispur, Guwahati-7810 063 E-mail : jogesh_sarma@yahoo.co.in M : 094350 11172
5	West Bengal	Chairman	Dr. Indranil Halder	L-986	Bandel Station Road, Opp. Water Tank (Children's Park) Bandel, P.O. Hooghly, Hooghly-712 103 E-mail : indranil.h@yahoo.com M : 09830 383102
		Secretary	Dr. Anirban Sarkar	L-1073	60/10, Nimchand Moitra Street, Baranagore, Kolkata-700 035 E-mail : anirbansrkr10@gmail.com M : 098301 26579

ICS West Zone State Chapter

Table 2. : List of Chairman and Secretary ICS State Chapter (West Zone)

Sr. No.	State	Post	Name	Membership No.	Updated Contact Details
1	Maharashtra	Chairman	Dr. Sanjeev Kumar Mehta	L-2645	Golden Palace, 191/192, Turner Road, Near Union Bank, Bandra (West) Mumbai-400 050 (Maharashtra) E-mail : dr.sanjeevmehta@hotmail.com M : 098210 45149
2	Madhya Pradesh	Chairman	Dr. Salil Bhargava	L-1362	Gyanpushp Villa, 48, Dhar Kothi, Indore-452 001 (M.P.) E-mail : bhargavasalil@hotmail.com M : 098270 60404, 088189 40404
3	Chhattisgarh	Chairman	Dr. Trinath Dash	L-1493	Rose, 108, A-Block, Gate 2, International Colony, Talpuri, Bhilai-490 026 (Chhatisgarh) E-mail : dr.trinathdash@gmail.com M : 094079 82786
4	Gujarat	Chairman	Dr. Manoj Yadav	L-830	B-155, Saurabh Park, Near Balaji Nagar, B/ H Samta Flats Vadodara-390 021 (Gujarat) E-mail : drmanojyadav@yahoo.com M : 098250 60468
		Secretary	Dr. Amitkumar Dave	L-2093	G-101 Vishranti Tulips, Behind Maa Party Plot, Airport-Harni Road, Harni, Vadodara-390 022 (Gujarat) E-mail : amitdave1984@gmail.com M : 094265 23963
5	Rajasthan	Chairman	Dr. Mahesh Goyal	L-1703	1/31, Vidhyadhar Nagar, Jaipur-302 023 (Raj.) E-mail : drmaheshgoyal@gmail.com M : 09314504531
		Secretary	Dr. Neeraj Gupta	L-508	Opp. Savitri Girls College, Civil Line, Ajmer-305 001 (Rajasthan) E-mail : drneerajajmer@yahoo.com M : 09829101942

ICS North Zone State Chapter

Table 3. : List of Chairman and Secretary ICS State Chapter (North Zone)

Sr. No.	State	Post	Name	Membership No.	Updated Contact Details
1	J & K	Chairman	Dr. Parvaiz Ahmed Koul	L-1370	SKIMS, Soura, Srinagar-190011 E-mail : parvaizk@gmail.com M : 094190 04822
		Secretary	Dr. Bikram Singh Datta	L-1327	Green View Colony, Lane-2 (Near Sacred Mission School), Aluchi Bagh, Srinagar-190 008 E-mail : drbsdutta@yahoo.co.in M : 094190 06854
2	Himachal Pradesh	Chairman	Dr. Malay Sarkar	L-1028	C/o Mr. Vishal Mohan, Folly Town End, Jakhu, Set-7, Shimla-171 001 (HP) E-mail : drsarkarmalay23@rediffmail.com M : 09736 1 71778
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3	Haryana	Chairman	Dr. Krishna Bihari Gupta	L-317	6J/18, Medical Campus, PGIMS, Rohtak-124 001 E-mail : dr_kb_gupta@yahoo.com M : 098960 73449
		Secretary	Dr. Sushil Dhamija	L-744	Dhamija Chest Hospital, Rohtak Gate, Bhiwani, Haryana-127 021 E-mail : dhamijasushil@gmail.com M : 098120 30447
4	Punjab	Chairman	Dr. H. J. Singh	L-355	Ranjit Chest Hospital, 58, Kapurthala Road, Patel Chowk, Jalandhar-144 001 (Punjab) E-mail : drhj86@gmail.com M : 098142 17738
		Secretary	Dr. Vishal Chopra	L-730	27, Bank Colony, Patiala-147001 E-mail : drvishalchopra@gmail.com M : 09814 146788

ICS North Zone State Chapter

Table 4. : List of Chairman and Secretary ICS State Chapter (North Zone)

Sr. No.	State	Post	Name	Membership No.	Updated Contact Details
5	Chandigarh	Chairman	Dr. D. Behera	L-181	Professor & Head, Department of Respiratory Medicine, Post Graduate Institute of Medical Sciences and Research, Chandigarh-160 012 E-mail : dirlrsi@gmail.com M : 098157 05357
		Secretary	Dr. Ashok Kumar Janmeja	L-467	1117, Sector 32-B, Chandigarh-160 030 E-mail : akjanmeja@gmail.com, Ashokjanmeja@hotmail.com M : 096461 21621
6	Uttarakhand	Chairman	Dr. Girish Sindhwani	L-672	House No. 42, Ground Floor, Hill View Colony, Indra Nagar, Dehradoon-148 001 E-mail : girish.sindhwani@gmail.com M : 078950 50321
		Secretary	Dr. Mayank Mishra	L-1459	Assistant Professor, Department of Pulmonary Medicine, AIIMS, Rishikesh-249 201 (Uttarakhand) E-mail : virgodrmayank@gmail.com M : 090587 88799
7	Delhi	Chairman	Dr. Randeep Guleria	L-410	K-11, Green Park Extension, New Delhi-110 016 E-mail : randeepg@hotmail.com M : 098101 84738
		Vice Chairman	Dr. Deepak Talwar	L-1479	E-47, Sector 55, Noida to Noida-201 301 E-mail : dtlung@hotmail.com M : 098990 50000
		Secretary	Dr. Anant Mohan	L-1842	Room No. 3098, 3rd Floor, Teaching Block, AIIMS, New Delhi-110 029 E-mail : anantmohan@yahoo.com
8	Uttar Pradesh	Chairman	Dr. Surya Kant	L-583	49-B, Jagat Narain Road, Near Medical College Crossing, Lucknow-226 003 E-mail : skantpulmed@gmail.com M : 094150 16858
		Secretary	Dr. Ashok Kumar Singh	L-1584	4/218-A, Subhedar Niwas, Vishnupuri, Kanpur-208 002 E-mail : dr_ashok_rhl@yahoo.com M : 098390 96578

ICS South Zone State Chapter

Table 5. : List of Chairman and Secretary ICS State Chapter (South Zone)

Sr. No.	State	Post	Name	Membership No.	Updated Contact Details
1	Tamil Nadu	Chairman	Dr. Arjunan Manimaran	L-2799	H. No. 15, 2nd Street, State Bank Colony, Medical College Road, Thanjavur-613 004 Tamilnadu, India E-mail : amanimaran68@gmail.com M : 094866 48866
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1. Promoting research and academic activities.
2. Organising periodic academic meetings and conferences at international, national, zonal and local level and to bring together periodically, the medical fraternity interested in Respiratory Medicine, at a common meeting point.
3. Organising periodic patient awareness and educational programmes to promote understanding about the important respiratory diseases.
4. To assist in creating technical manpower required to handle various diagnostic and therapeutic equipments related to Respiratory Medicine.
5. To assist in creating trained medical manpower required to handle various patient related activities.

RESPIRE QUIZ
(January - April 2022)

We are well aware of asthma phenotypes and all are treating them. We do have multiple treatment options specific to a particular phenotype. Match the asthma phenotypes in List I with their most preferred treatment option in List II.

List - I	**List-II**
a. Th2 low asthma	(i) anti-IgE antibody
b. Atopic asthma antibody	(ii) anti-IL-5
c. Atopic asthma with eosinophilia	(iii) anti IgE& anti IL-5 antibody
d. Nonatopic asthma	(iv) bronchial thermoplasty

Best preferred options are -

	a	b	c	d
1.	iv	i	iii	ii
2.	i	ii	iii	iv
3.	iv	iii	ii	i
4.	iii	iv	i	ii

Please send correct answers to Dr. Neeraj Gupta
at E-mail : drneerajajmer@yahoo.com
and cc to icsofficeexecutive@gmail.com
First three correct winners stand a chance to feature in the next issue of Respire Quiz Section

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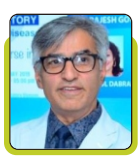

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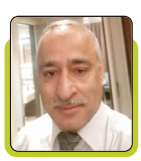

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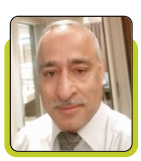

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