

APHRS NEWSLETTER



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ANNOUNCEMENT FROM PRESIDENT

Tachapong Ngarmukos M.D., FAPHRS

Dear APHRS Members and Colleagues,

After careful consideration and comprehensive evaluation of currently available information related to the novel coronavirus (COVID-19) outbreak, the APHRS Executive Board has made the difficult decision to cancel the APHRS Annual Scientific Session of this year, originally scheduled for 29 October – 1 November 2020 in Shanghai, China.

APHRS would like to thank you for your kind understanding and continuous support to our society. We share your disappointment in this decision, but we also share a common commitment as health care professionals to do what is best and right for our community, for all those with whom we engage and interact including our patients whom we need to take care of during this pandemic. Everyone's health is of the utmost importance, we all need to get through this difficult time with all of us staying healthy.

While this current pandemic is ongoing, sharing new discoveries, new knowledge, and new treatments should continue even if it is not related to the virus. APHRS will continue to facilitate learning for our members and colleagues through different online platforms.

Opening different online platforms such as podcasts, webinars, online educational materials and lectures will help keep our members and colleagues updated.



I'm currently at Ramathibodi's new campus located outside of Bangkok, where we take care of all our COVID-19 patients. I've seen COVID patients in the Intensive Care Unit quite critically ill and our therapeutic knowledge and options are limited. As I'm writing this, I urge everyone to take care of yourself and your love ones. Always remember to use a mask, wash your hands, keep a safe distance from others and stay healthy. With this, we can help beat this pandemic together.

We look forward to hosting you next year at APHRS 2021, which will be held at the Shanghai International Convention Center from 28 to 31 October 2021.

Coronavirus and Arrhythmia

By: Ruogu Li, M.D., PhD, Xingbin Liu, M.D., FHRS, Yan Dai, M.D., Jingjuan Huang, M.D., PhD, Weiwei Zhang, M.D., Yiding Qi, M.D., PhD, Yangang Su, M.D., PhD, FHRS, FEHRS, Liqun Wu, M.D., PhD, FHRS, Congxin Huang, M.D., FHRS, FEHRA, FAPHRS, FACC, FESC, Wei Hua, M.D., PhD, FHRS, FESC, Shu Zhang, M.D., FHRS, FAPHRS, FESC, Dejia Huang, M.D., FHRS, HEHRA

Chinese Society of Pacing and Electrophysiology (CSPE) Chinese Society of Arrhythmias (CSA)

A web conference was co-host by Chinese Society of Pacing and Electrophysiology (CSPE) and Chinese Society of Arrhythmias (CSA) on February 21 2020. The Chinese EP doctors put together the following points as a guide to help EP doctors and patients explore coping strategies to deal with the challenges of COVID-19.

In general, medical workers are at the front line of any outbreak response and as such are exposed to infection that increases their risk of infection, in this case COVID-19. EP doctors had minimal experienced in dealing with new infectious diseases that require in hospital-provided occupational safety and health training. Standard prevention and control measures as wearing masks and hand disinfection are necessary to lower the risk infections. All EP doctors at the healthcare facilities must wear medical surgical mask. However, EP doctors who works in fever clinic or isolation ward must wear medical protective masks (N95) instead based on Level 1 protection. Regular Cleaning and disinfecting are required in healthcare

buildings, rooms, water and sanitation facilities and specially to surfaces that are touched by many patients. Basic standard protective measures, infection prevention and control of contact transmission of droplet and airborne transmission need to be strengthened against the new COVID-19 It is important to ensure that fever related arrhythmia patients should visit a designated hospital with a relatively independent fever clinic to reduce cross infection rather than a cardiology clinic.

EP doctors should be knowledgeable about the epidemiological and clinical features of COVID-19 and screen arrhythmia patients according to the screening criteria. Response strategies during outbreaks are different. Educating patients with arrhythmia by providing clear instructions on how to wear medical masks, proper hand washing, cough etiquette, medical observation and home quarantine can help prevent further spread of COVID-19.For non-emergency cases, doctors should recommend patients to avoid hospitalization as much as possible and recover at home by taking the medicine.



For emergency and confined cases, patients with completely intolerable bradycardia symptoms, dizziness, syncope or malignant arrhythmia such as VT/VF. should be a hospitalization in a single room. It is recommended that patients with arrhythmia to seek medical treatment nearest to them and minimize potential exposures to both public and their family members. If conditions permit, patients should go for regular chest CT scan for lung infection assessment. For complex and complicated cases, do seek help from experience of experts through remote consultation instead of referring patients to superior hospitals for optimum therapeutics.

Level 2 protection is necessary when performing surgery on patients. Plasma air sterilizers can be used continuously for air disinfection in a cardiac catheterization laboratory with human activity.

Alternatively, ultraviolet lamps can be used for 1 hour before and after operation. Work uniform and lead aprons with chlorine should he soak disinfectants or effective chlorine for 30 minutes before rinsing with clean water. This is the same method as disinfecting floor and walls. Advise to disinfect every time when contamination is suspected and after operation. In the above-mentioned case, patients with fever or typical lung changes on CT imaging should be isolated in time for further processing. It is recommended as first-choice action to provide conservative treatment for critical patients whose infection cannot be ruled out. **Patients** suspected diagnosed with new COVID-19 infection who have to undergo pacemaker implantation should be referred to a qualified hospital where there is a negative pressure operating room.

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Routine follow-up of patients with pacemaker implantation should reduced or minimized. If the patient's financial condition permit, remote monitoring associates with more convenience and security for patients with pacemakers during pandemic. important to provide and guide the patients on how to access to nonemergency services online, so as decrease the number of visitors healthcare facilities if necessary.

As for patients with pacemakers, selfmonitoring for heart rate and cardiac rhythm at home. using sphygmomanometer, wristband and other portable devices is necessary. Visits to the nearest hospital when heartbeat selfmonitored below the pacemaker's set frequency for three consecutive days with serious symptoms such as dizziness, dark syncope and syncope. Besides, threshold or impedance alarms remote monitored in pacing-dependent patient, the emergence of ICD automatic defibrillation or electric storm with ICD are also important reasons for follow-up. Patients without fever but pacemaker pocket is inflamed should stay home and observe their situation. It is important to pay attention to the power supply of the pacemaker and avoid replacing it during the pandemic. Heart failure patients with CRT should take medicines regularly as directed by doctor and go to hospital in case of rapid worsening of symptoms such as oliguria, dyspnea, and lower limb edema.

During the COVID-19 pandemic, stroke prevention in patients with atrial fibrillation is also a top priority. Self-monitoring and taking antiarrhythmic medicines on time is the basis for atrial fibrillation heart rate rhythm. Patients need to recognize that anticoagulation is a long-term treatment process and cannot

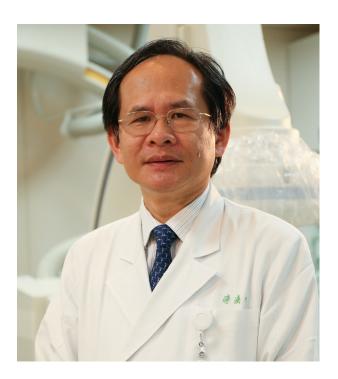
stop taking medicines even during COVID-19 pandemic. Anticoagulant therapy should be standardized, and oral warfarin-treated patients need to have a stable diet and a regular INR test. New oral anticoagulants are more convenient, but close monitoring for limb movement disorders or bleeding just like oral warfarin is needed. It is advisable to stay in touch with doctors online and prepared enough medicines.

Finally, patients with heart disease should be more aware of self-protection, learn about early identification of symptoms and essential preventative action, so as to health damage caused reduce avoidable infections. Patients need to avoid contacting with anyone suspicious, visiting epidemic areas, avoiding public transportation, wear a mask and keep good hand hygiene have an impact on reducing infections. Balanced nutrition and moderate exercise can help patients survive the pandemic better. Patients who visit healthcare facilities for must emergencies should make an appointment through other means, including online and calling. which provides necessary guidance in transportation, parking, arrival time, protective measures, triage information and indoor navigation. Comprehensive information should be provided by patients in advance, to increase the efficiency of diagnosis and treatment and decrease the duration of the visit.



GETTING TO KNOW Shih-Ann Chen M.D., FAPHRS

Vice superintendent, Taipei Veterans General Hospital Professor of Medicine, National Yang-Ming University Past President, APHRS (2012, 2013)



What is your best life advice, motto or favorite quote?

Staying in the home, chatting with my wife and kids, and they always give me the best advice of life career because I can see myself during the talk with family. Keep warm and patient, use the most efficient and safe treatment strategy to the patients.

If you can get to have a alternative career, what would it be and why?

I would like to continue study and enjoy classic music, especially playing violin. Lots of fun in my university life include joining the university orchestra, playing chamber music, and serving as the conductor of the orchestra.

Why did you choose to enter medicine and above all, prefer to specialised in electrophysiology?

I was very interested in biology while in the high school, and decided to study medicine in the future career. After entering the medical university, cardiovascular physiology was so amazing because you can study it with the step by step logical thinking. For the field of cardiac electrophysiology, the electrical signals are like the music note with beautiful sound.

What do you regard to be the most significant development in cardiac rhythm management?

The invasive treatment strategy with cure of cardiac arrhythmias is the most significant innovation in cardiac electrophysiology. Although it takes lots of efforts to find the new mechanisms, design the new mapping and ablation technology, we have more confidence to cure different kinds of cardiac arrhythmias.

Can you talk about an accomplishment that you're particularly proud of?

I spend more than 30 years to study the mechanisms of atrial arrhythmias, including atrial tachycardia and atrial fibrillation. Classification of three different mechanisms of focal atrial tachycardia, and pathophysiology of atrial fibrillation from pulmonary vein and non-pulmonary vein areas, especially the serial study of non-pulmonary vein mechanism with ablation technique, are my team major contribution to cardiac electrophysiology.

Who inspire you the most in your life and why?

It was very lucky for me to meet many good friends and mentors in my life. Prof. Chang Mau-Song is teacher of clinical electrophysiology. Prof. Lin Cheng-I and Prof. Kou Chung-Hsiung are teachers of basic electrophysiology. I did not have any oversea training of cardiac electrophysiology. However, senior cardiac electrophysiologists such as Prof. Eric Prystowsky, Prof. Fred Morady, Prof. Frank Marchlinski, Prof. Gregory Feld, Prof. David Benddit, Prof. Jeremy Ruskin, and several others inspired me a lot, not only in the knowledge of cardiac electrophysiology, but also the management of team work of cardiac electrophysiology laboratory. Further, working with the core members of APHRS is another important event in my career, because we work together to improve the care of patient arrhythmia, development of higher medical technology and scientific level in this area.

What are your hobbies and interests outside of medicine?

Classic music and travelling are my major hobbies outside of medicine. I truly enjoyed a lot of fun with family in this winter travelling.

What are your thoughts about some of the emerging technologies, and the way they will shape the future care of arrhythmia patients?

Keep the positive attitude, and accept the new concept, new innovation of medical technology. Providing the best care, not only the medical technology, but also the warm communication and patience with the patients and patient family.

What is the funniest thing that has happened to you recently?

Nothing funny happened to me recently however the report of cardiac arrhythmia and sudden cardiac arrest in the break of COVID-19 virus is the most surprising issue recently. According to the report from HRS, the incidence of cardiac arrhythmia is around 17% in COVID patients.

What advice would you give to your younger self?

The electrophysiology world is expanding quickly, how to keep pace with the rapid innovation of cardiac arrhythmology and provide the most updated treatment and care strategy to patients would be the first consideration.



IBHRE CCDS EXAM PREPARATION GUIDE WITH DR APARNA JASWAL

By: Dr. Aparna Jaswal, M.D., DNB, FACC, FESC, CCDS, FHRS

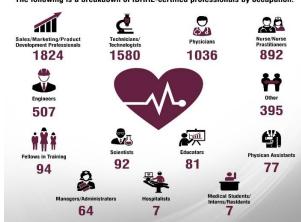


Dr. Aparna Jaswal, the ambassador of IBHRE, participated in a webinar support by Abbott Medical as the speaker, the webinar was aimed at giving an overview of the IBHRE Certified Cardiac Device Specialist (CCDS) Exam's syllabus and study materials available with the goal of helping individuals better prepare for the IBHRE CCDS Exam. She shared her experiences and strategies in taking the examination.

About IBHRE

The International Board of Heart Rhythm Examiners (IBHRE) is a self-governing organization that provides competency certification in the fields of cardiac rhythm device therapy and cardiac electrophysiology. It has established itself as promoting the highest standards of cardiac rhythm management and to recognize cardiac care professionals world-wide.





Number of certified professionals from different areas of occupation

Since 1985, the International Board of Heart Rhythm Examiners has set the standard for global certification in heart rhythm management. IBHRE offers competency certification to physicians and allied professionals to provide quality patient care in cardiac pacing. Certifications offered are the Certified Cardiac Device Specialist (CCDS).



58 countries with IBHRE certified professionals

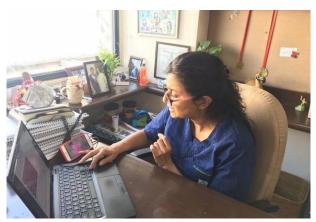
IBHRE is the global leader certification in heart rhythm management. The mission of the International Board of Heart Rhythm Examiners is to increase the heart rhythm professional's knowledge in order to improve the quality of care delivered to the patients.

About the Webinar

This is a 1-hour webinar. The target audience consisted of Allied Professionals, Device Technicians and manufacture representatives who plan to enroll for IBHRE CCDS Exam in the next few months/years.

The webinar was conducted on a WebEx platform to involve participants from different cities and countries. Over 100 AHPs/staffs from countries like china.

Japan, India and Australia participated in the webinar.



Picture of Dr Aparna Jaswal during the session

During the session, discussion on important topics includes guide to exam preparation, strategies to attempt the exam, study areas to be focused on and marks allocation within and according to the number of questions in the exam from each area of study. Discussions on time management during the exam, the exam duration and structure, break times between exam blocks and other details of taking the exam efficiently were mention.

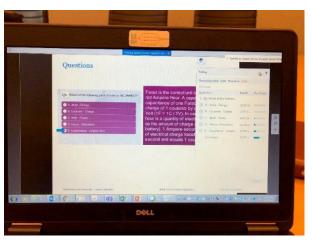


Healthcare professional preparing for IBHRE joined the webinar with Dr Aparna



Participant from japan attending the session

The live transmission included interactive Q&A session from each study area that is a part of the syllabus for the exam, with the use of Polling to allow the audience to participate in Q&A session. Dr. Aparna Jaswal takes time out to explain in detail the reason behind each answer to the questions and helped solve queries of the participants in all aspects.



Screenshot of the presentation- Q&A

Throughout the 1-hour webinar, Dr. Aparna Jaswal used interactive presentation including polling to engage the interest of the audience and inspired them by emphasising on the value of this certification and its significance in shaping their careers. She encouraged the candidates planning to appear for the exam to be empowered, confident and have a positive approach towards this examination.

Johnson Johnson Institute



Live Education Webinar

Road to Expert Accessory Pathway





AVRT is a common supraventricular tachycardia (SVT) that can have high rates of success when treated with Radio-Frequency Ablation. Now days many electrophysiologists start their practices with these SVTs and are keen to learn how to improve clinical outcomes. This session invites global experts to share their knowledge and experience with you, to improve your understanding and better equip you with the skills to maximize success.

(Topic:

Accessory Pathway Localization and Ablation	Dr. Matthew Swale
Para-Hisian Pacing: Technique to differentiate retrograde accessory pathway and AV nodal conduction	Dr. Warren (Sonny) Jackman
Practical way to optimize outcomes by 3D mapping	Dr. Kaijun Cui







INSIGHT THAT KEEPS YOU A BEAT AHEAD.

PREDICTING HEART FAILURE WEEKS IN ADVANCE IS NOW A REALITY.

Effectively managing heart failure is challenging. In fact, 25% of patients are readmitted within 30 days of implant.¹-³ With HeartLogic™, you may have the power to change the stats. Our novel algorithm detects early warning signs of worsening heart failure from a diverse set of physiological sensors, all designed to target different aspects of heart failure pathophysiology. This can give you and your team more time to proactively intervene, adjust treatment and potentially improve patient outcomes.

The HeartLogic[™] Heart Failure Diagnostics uses multiple sensors to track physiological trends, combines them into one composite index and sends a proactive alert of potential worsening heart failure.⁴



HEART SOUNDS*

Reveals signs of elevated filling pressure and weakened ventricular contraction.



THORACIC IMPEDANCE

Measures fluid accumulation and pulmonary edema.



RESPIRATION*

Monitors rapid shallow breathing pattern associated with shortness of breath.



HEART RATE

Indicates cardiac status and arrhythmias.



ACTIVITY

Shows activity levels and reflects the patient's overall status and fatigue.

^{*} Unique to Boston Scientifi

^{1.} Fonarow GC, Abraham WT, Albert NM, et al. Association between performance measures and clinical outcomes for patients hospitalized with heart failure. J AMA. 2007;297(1):61-70. https://www.ncbi.nlm.nih.gov/pubmed/17200476

^{2.} Fonarow GC, Abraham WT, Albert NM, et al. Factors identified as precipitating hospital admissions for heart failure and clinical outcomes: findings from OPTIMIZE-HF. Arch Intern Med. 2008;168.847. https://www.ncbi.nlm.nih.gov/pubmed/18443260
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4. Boehmer JP, Hariharan R, Devecchi FG, et al. A Multisensor algorithm predicts heart failure events in patients with implanted devices: results from the MultiSENSE study. JACC Heart Fail. 2017 Mar;5(3):216-25

Boenmer Jr., Harmaran H., Devecchi Fi, et al. Al Multisensor algorithm predicts hear trailure events in patients with implanted devices: results from the multisense study. JACC heart Fail. 2017 Mar, 5(3), 216-

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APHRS 2020

13th ASIA PACIFIC HEART RHYTH SOCIETY SCIENTIFIC SESSION

Hosted by:

Asia Pacific Heart Rhythm Society

Organized by:

World Association Of Chines Doctors (WACD)

Academic Support:

Chinese Society of Pacing Electrophysiology (

ias (CSA) Chinese Society of Arrhy

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SHANGHAI EXPO CENTRE

