HONG KONG COLLEGE OF PHYSICIANS

SYNAPSE

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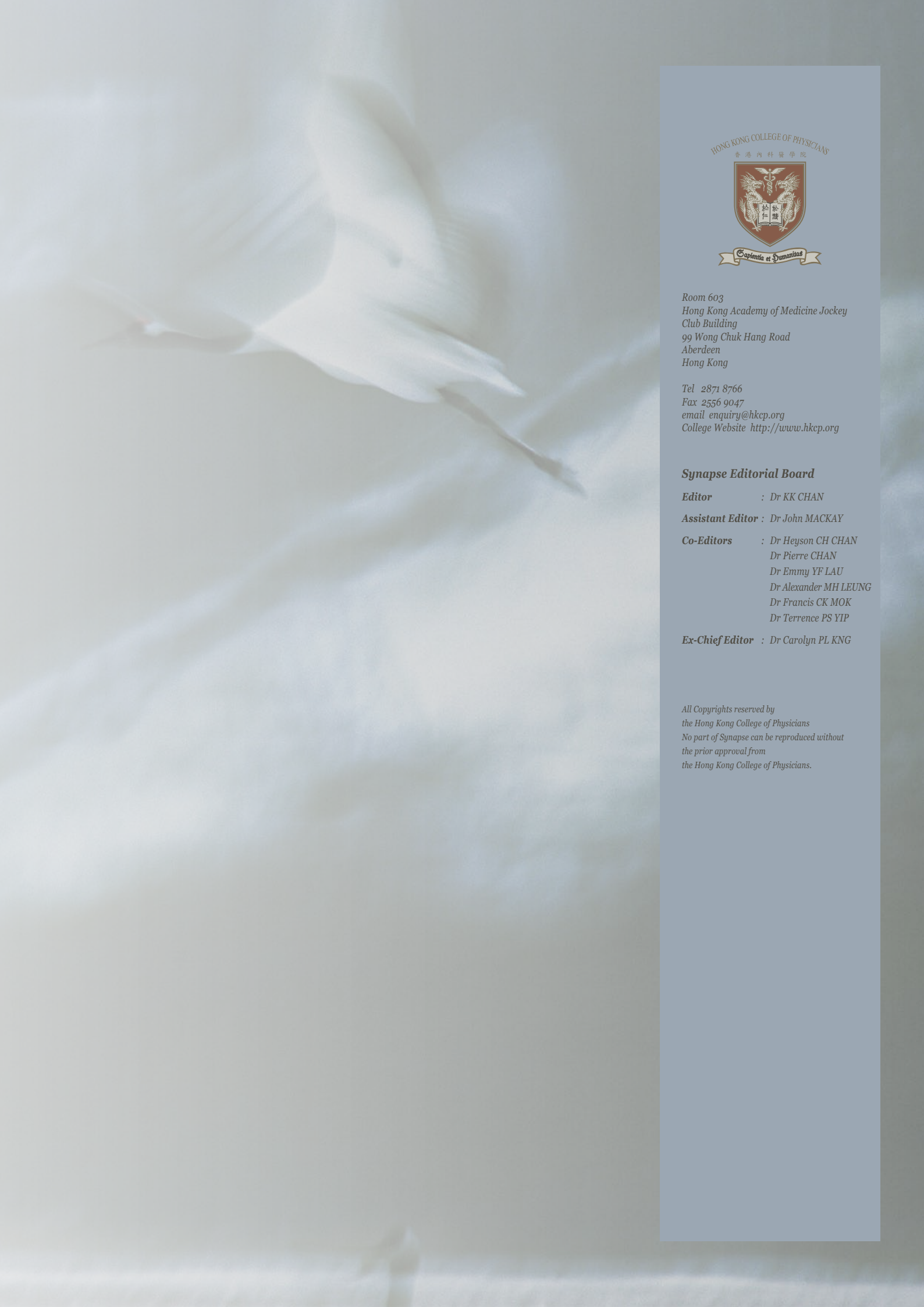
OCTOBER 2020

COVID-19 SPECIAL ISSUE

Photograph by
Professor Richard YH YU

CONTENTS

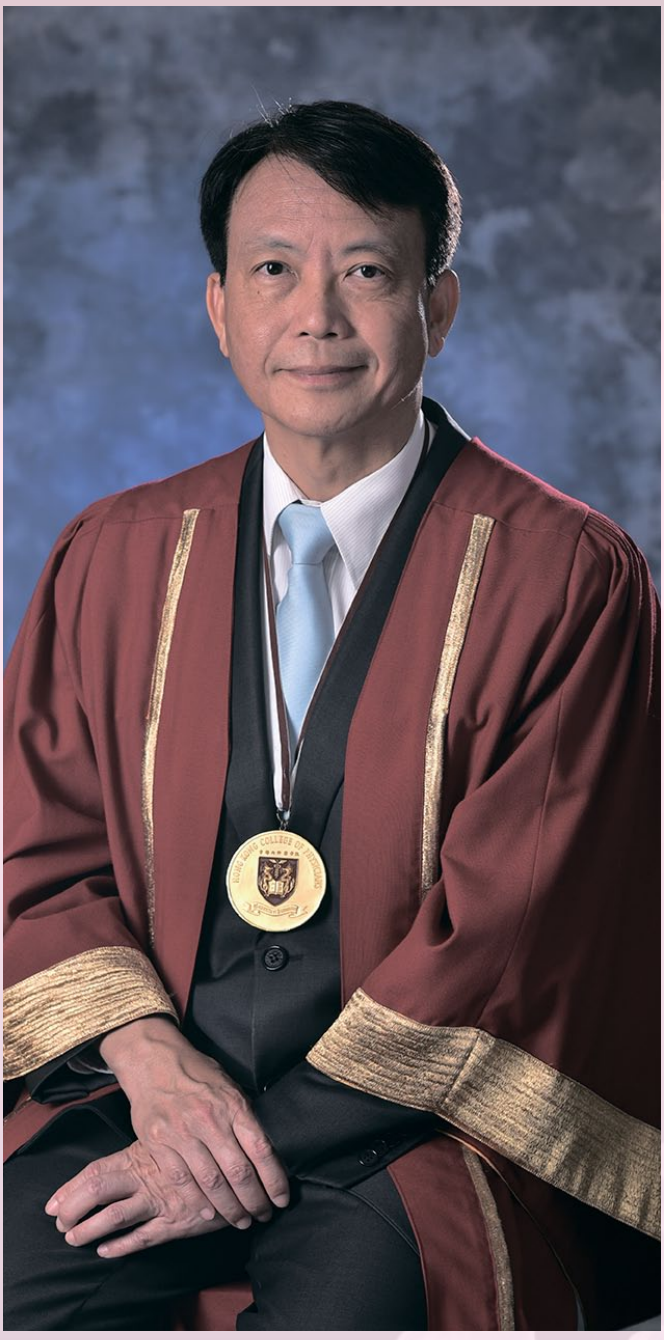
THIS ISSUE



Room 603
Hong Kong Academy of Medicine Jockey Club Building
99 Wong Chuk Hang Road
Aberdeen
Hong Kong

Tel 2871 8766
Fax 2556 9047
email enquiry@hkcp.org
College Website http://www.hkcp.org

President's Message on COVID-19



As of September 20, 2020, globally there are already over 30 million COVID-19 positive cases with over 950,000 deaths. Hong Kong has 5,003 cases with 103 deaths. Such intense pandemic is not really anyone who would expect to see in their lifetime.

This issue of Synapse is devoted to COVID -19 as we physicians are on the most fore-front of managing all these cases. We have invited physicians of different levels: interns, residents, Associate Consultants, Consultants, Chief of Service and Professors to contribute and they are from different hospitals and also colleagues from Department of Health to reflect their experience and feelings. They are from a variety of Sub -specialties of the College highlighting that our College specialists are fighting the disease at all fronts. Prof KY Yuen has kindly written an opening chapter for us. It is fully understandable that with such a long fight against the virus, different sentiments built up among our clinicians. With the various experiences and feelings reflected from our doctors in their articles, one thing for sure is that we see the most virtuous attitudes that they have displayed in the overall commitment in fighting the disease.

Because of the pandemic, the hardest hit programmes of the College are on Examination and Training. After elaborate discussions, the College has to make the painful decision to cancel the October diet of MRCP PACES Examination, having already canceled the March one. This was based on considerations related to numerous issues, including (a) infection risks towards candidates, patients and surrogates; (b) availability of UK examiners and their possible need to quarantine; (c) adequate number of local examiners to run the October PACES if UK examiners cannot come; (d) availability of suitable and safe venues for the examination during the rampant COVID-19 situation; (e) the necessary

infection control measures, including COVID-19 screening tests for participants, to exclude asymptomatic carriers; (f) whether "alternative" or modified examination format can be available, feasible and endorsed by UK MRCP Office; and (g) the inability to accurately forecast the COVID-19 situation in October 2020 when the current 3rd wave in August is still unsettled, with persistent double-digit new cases and numerous infected cases without clear contacts. As there is a need to have 1-2 months ahead to prepare for a clinical bedside examination like PACES that involves patients and surrogates, the decision has to be made in August, 2020. Recognizing the disappointment of the candidates, the College is making a proposal on special ad hoc arrangements for our Basic Physician Trainees so that the progression to Higher Physician Training would not be interrupted or substantially delayed due to the inability to participate in PACES examination in 2020. The College will try our best to increase the PACES examination quota as much as possible in the coming diets. Luckily the MRCP Part I and Part II written examinations continue. Also all the examinations and assessments of the College Higher Physician Training (HPT) programmes go on uninterrupted.

Many of the activities were required to be done on the virtual platform. The career talk for medical students has been held on 11 June 2020 by webinar with over 150 participants and the response and feedback were very positive. However, the Core Medical Skill Course (CMSC) for basic physician trainees has to be postponed to November 2020.

After over 9 months of COVID-19 inflicted changes of our daily activities, we have to gradually move back to normality. We plan to continue to have our College's Annual Scientific Meeting on Oct 17-18 this year as a hybrid mode: with face to face meeting as well as webinar format. Prof EK Yeoh will be our AJS McFadzean Orator for the year to speak on "The Timeless Physician: A Gift to Humanity". Prof CS Lau will be our Gerald Choa lecturer and he will give a talk "To love and heal". The scientific programme is really excellent and I encourage all of you to attend, either in person or through Webinar. This year, we will waive the registration fee for the ASM for all our fellows, members and trainees. We will also have our Fellowship Conferment Ceremony as planned on Oct 17. This will probably be the first face-to face conferment ceremony among all Academy Colleges.

The availability of vaccine is all we look up to for protecting the people of Hong Kong and around the world. With or without the vaccine, we have to keep our vigilance and continue our stringent measures to protect ourselves.

I would like to leave you a quote from Sun Zi (544 BC - 496 BC): 孫子兵法 — 故用兵之法，無恃其不來，恃吾有以待之；無恃其不攻，恃吾有所不可攻也。To paraphrase Sun Zi's wisdom 2,500 years ago: "The art of war teaches us to rely not on the likelihood of the 'virus' not coming, but on our own readiness to receive it; not on the chance of it not attacking, but rather on the fact that we have made our position unassailable."

Last but not least, I have to reinforce my salute to all Physicians and healthcare workers at all levels in your work towards combating this pandemic. Our virtuous, selfless and dedicated fight will never fail us.

Prof Philip KT Li
President
Hong Kong College of Physicians

Reflections from a clinician-scientist during COVID-19 pandemic: Facing unknowns, breaking dogmas

Prof Kwok-Yung YUEN
Queen Mary Hospital / HKU

The Challenge of an Emerging Infectious Disease and our limitations

As I write this, coronavirus disease-2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has affected over 25 million people globally with more than 0.8 million dead since its emergence six months ago. Unlike other human illness, an emerging infectious disease represents a complex interplay between microbes, humans and the ecosystem viz. the animal reservoir harboring the microbe. Moreover, caseloads in emerging respiratory virus epidemics, as exemplified by SARS-CoV-2, often skyrocket logarithmically due to high transmissibility via a number of routes: respiratory droplets, airborne aerosols, and direct or indirect contact within an immunologically naïve population. Though most healthy individuals with COVID-19 are asymptomatic or mildly symptomatic, about 20% of virologically documented infections are severe enough to warrant hospitalization and intensive care. The global crude mortality of about 3% is sufficient to induce public panic. This is understandable because the disease is new and evidence based recommendations on testing, epidemiological control measure, infection control practice, antiviral treatment and vaccination are all lacking initially. The general public therefore turns to infectious disease experts for their opinions, which are also based on weak preliminary information. Such opinions are necessarily diverse and often contradictory and therefore serve to polarize public opinion.

Containment versus mitigation

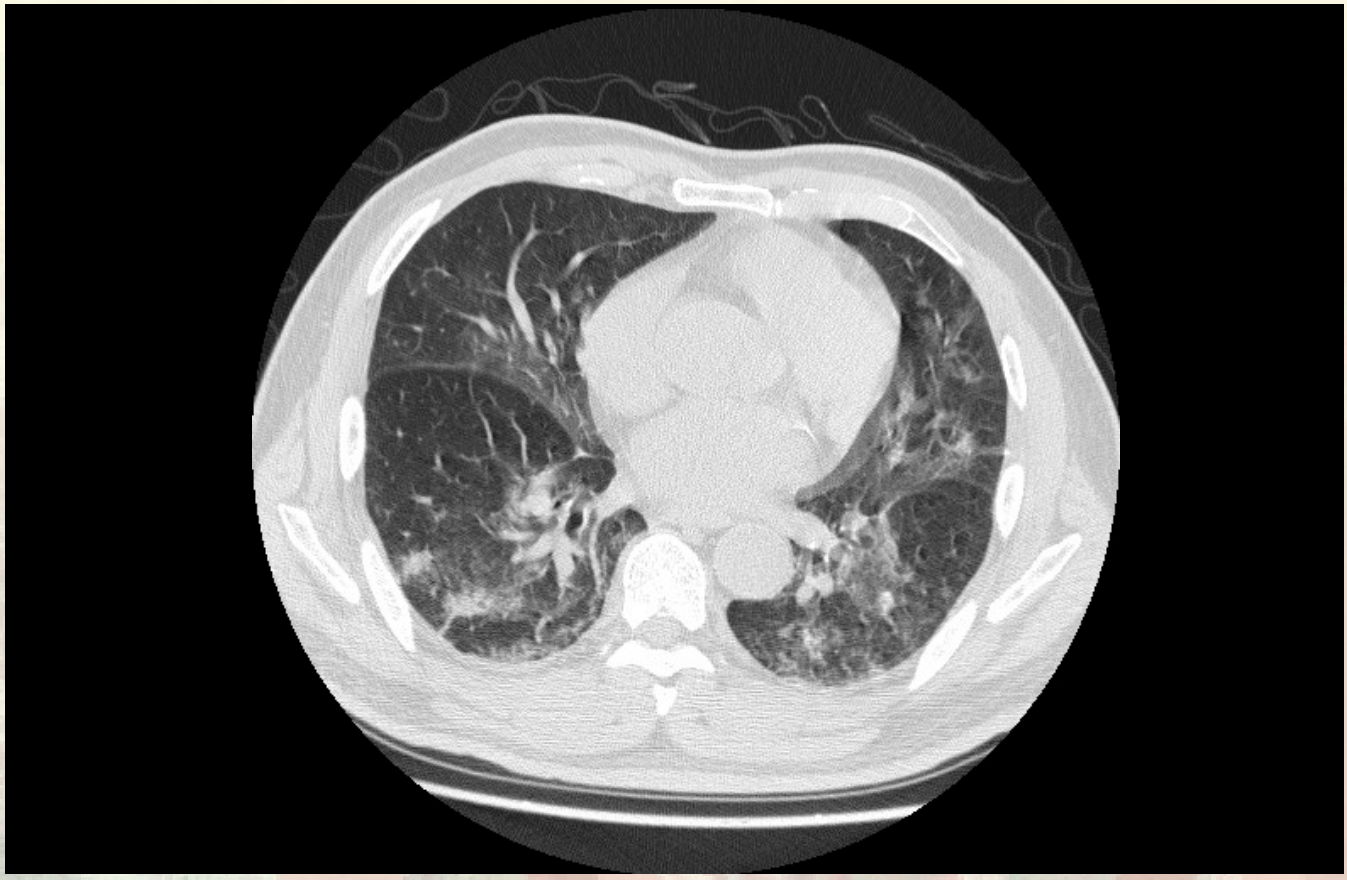
A containment policy can be used in control of COVID-19 outbreaks, if deployed early in the course of the outbreak when caseloads are still relatively low. Successful containment depends on extensive disease surveillance, case isolation, intensive contact tracing and quarantine. The aim is to nip the epidemic in the bud. If the number of cases exceeds the containment capacity of public health officials, the mitigation policy of social distancing such as school closure, home office and cancellation of large gatherings comes into play. Mitigation measures can reduce the morbidity and mortality so that healthcare services are not paralyzed. Mitigation is a waiting game: ensuring that the damage to society is minimized to the extent possible until the epidemic spontaneously dies down when sufficient herd immunity is built up. This sequential use of containment and mitigation is basically accepted as a dogma by many epidemiologists, but this

was challenged by other specialists who advocated the concomitant use of both approaches to suppress the case load in HKSAR. This turns out to be a very sensible approach for such a highly transmissible infection with a crude mortality which is about ten times that of seasonal influenza. The Hong Kong healthcare system was not overloaded and few hospital workers were infected despite a surge in local cases in March and August2020.

First line of defense at community level and last line of defense at personal level

The golden rule for epidemic control is to "control an outbreak at the source" as the first line of defense at the community level. HKSAR is an international city which has historically relied upon the free flow of people and cargo for its survival. Unlike many countries which adopted border closures to stop imported cases, HKSAR has adopted a border control policy which mandates entrees to have testing and quarantine for 14 days. Imported COVID-19 cases, about 66% of our 1100 cases during the second wave in March, from both mainland China and overseas were picked up by early testing. But we also know from our studies of a Shenzhen familial cluster and returnees from Diamond Princess that many cases (67%) were shedding virus while asymptomatic, pre-symptomatic or mildly symptomatic. These subclinical cases perpetuate transmission chains in the community and would not be picked up if they had not have been tested at all. Thus, conventional border control or closure, limited testing of symptomatic patients, traditional contact tracing and social distancing measures would not be able to contain the epidemic. This has been observed in several western countries. The unique characteristics of this pandemic demand a new innovative approach.

Universal or community wide masking as personal level protection is advocated by some experts in HKSAR as early as 24 January 2020 because residents of the territory intuitively recognized the efficacy of face covering to stop emission of exhaled virus-laden droplets from subclinical cases in addition to its protection of the susceptible population. As expected, this move was criticized by both local experts and many world authorities

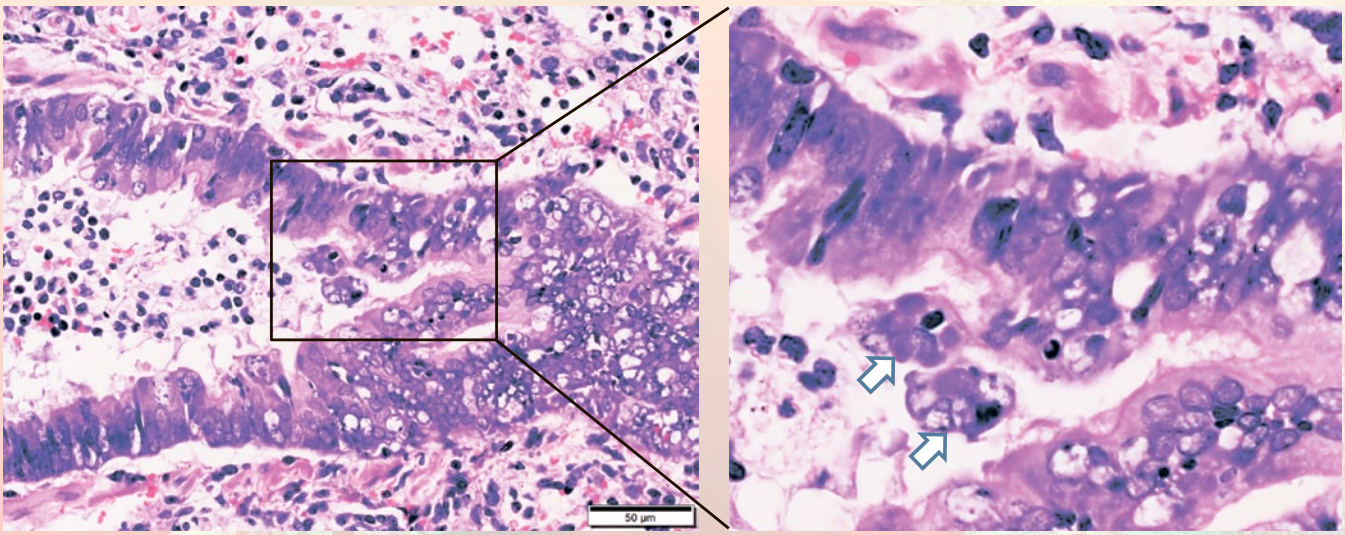


Thoracic computerized tomography scan image of a COVID-19 patient showing multifocal ground-glass changes.

due to the lack of evidence in the community setting. They believed that the general public would increase their risk of infection as they do not know how to wear surgical masks properly. Furthermore, the rush to buy masks by the public would affect the supply to healthcare workers. However, our experience has since shown that people can always be taught compliance with proper mask usage. Even though 100% compliance with correct mask usage cannot be expected, the presence of facial covering at critical moments when individuals come in contact with the virus is likely to reduce the risk of acquisition significantly. Similarly, face mask usage by an infected individual would reduce virus shedding into their immediate environment. A mask protects both the wearer and those around him/her. As expected, we demonstrated the bi-directional protective effect of surgical mask partitions in our hamster model. Furthermore, mask usage prevents us from contaminating the commonly touched items or shared fomites in our surroundings with our saliva and respiratory droplets. This is unlike hand washing which is a discontinuous protection. You can always contaminate your hands within the next minute after a proper hand washing or hand hygiene. With the very successful control of community outbreak in HKSAR by measures including community wide masking, hospital caseloads became very manageable, which paradoxically led to a much lower demand for personal protective equipment such as surgical masks. The clear lesson for us is that early and effective control of caseloads will protect the healthcare service, the healthcare workers and the supply of personal protective equipment. The wisdom of this approach is gradually being acknowledged in several Western countries where mandatory masking rules have been passed. Prominently, Mr. Donald Trump (President of USA) has also recently pivoted from his long-standing refusal to wear face masks. Both World Health Organization and US Centre for Disease Control have also recently changed their stance on masks.

Explore innovative clinical sampling for diagnostic tests to improve acceptability and availability

Case identification for isolation, contact tracing and quarantine would not be effective without a rapid and accurate test. Another controversy is the use of deep throat saliva (posterior oropharyngeal secretions) instead of nasopharyngeal swab for viral testing by RT-PCR. Many microbiologists opposed the use of deep throat saliva because it is generally accepted that the salivary viral load is approximately one log lower, which renders the RT-PCR test less sensitive. However, taking clinical specimens for RT-PCR by nasopharyngeal and throat swabbing can induce discomfort and occasionally nasal bleeding. It may also induce coughing and sneezing, which endangers healthcare workers. Mass screening would rapidly lead to a shortage of swabs. HKSAR has circumvented these difficulties by implementing self-collection of early morning posterior oropharyngeal



Hematoxylin and eosin-stained lung tissue (left, magnification 400x) of a SARS-CoV-2-infected hamster showing giant cells (right, arrows).

secretion (deep throat saliva) before breakfast and mouth rinsing by patients themselves. During sleep, the nasopharyngeal secretions of the upper respiratory tract will accumulate around the posterior oropharynx together with the bronchopulmonary secretions of the lower respiratory tract moved up by the mucociliary escalator. Both upper and lower respiratory tract secretions are important for laboratory diagnosis because some patients with multifocal ground glass opacities on their lung computed tomography scan may have negative RT-PCR from upper respiratory tract specimens. If the patient can clear the throat by a coughing and gurgling manoeuvre for at least 5 times into a sputum container with viral transport medium, the sensitivity would be similar if not better than nasopharyngeal and throat swabs. Three independent studies have been published showing that this new form of sampling has similar if not better sensitivity than nasopharyngeal swabbing. Over 1000 HKSAR returnees quarantined on the World Dream cruise ship were distressed by the prospect of another 14 days of quarantine and asked for immediate testing before release for medical surveillance. The health officers were distressed by the anticipated workload of taking over 1000 nasopharyngeal swabs. The problem was finally solved by returnees' self-collection of deep throat saliva for testing.

"Early Quarantine, Isolation and treatment" strategy versus "Wait and See" strategy

Protection of the healthcare service from overloading during epidemics is another top priority in order that healthcare workers would not acquire COVID-19 due to fatigue with lapsing of infection control procedures or depletion of personal protective equipment. "Stay at home with no testing and go to hospital only when deteriorating" is the policy adopted in many Western countries. HKSAR did the exact opposite. Every suspected case is isolated for 14 days till repeated tests are negative. The staff of the hospital authority even proactively went to quarantine centers and airports to collect specimens for testing so as to minimize community transmission. Since every confirmed case is mandated to stay in a negative pressure isolation ward, they can be comprehensively assessed to decide if early antiviral treatment is indicated. Thus our COVID-19 patients are generally treated early with a single antiviral agent or a combination such as interferon beta-1b, lopinavir-ritonavir and ribavirin. Paradoxically such a heavily hospital-based approach again spares our healthcare service from being overloaded.

Reflection and lessons learned

High quality (level) evidence requires years, or even decades, to accumulate. A novel pandemic, on the other hand, is an emergency requiring immediate action. How can we navigate an extremely challenging situation correctly without evidence? We should resign ourselves to the fact that data from randomized control trials based on deductive logic is simply not going to emerge in a reasonable time frame to help us in a pandemic situation. Instead, inductive logical thinking, which derives scientific principles from empirical observations and past experience are all that we have. However, we should also bear in mind the limitations of past dogma while confronting a novel problem. We must stay at least three steps ahead of the epidemic by instituting sensible and innovative measures by challenging conventional methods and dogmas. The number of RT-PCR confirmed cases at the hospital is just the tip of the iceberg. Many asymptomatically or mildly symptomatic COVID-19 infected individuals can only be detected by serum antibody tests. Seroepidemiological study of the general population showed a SARS-CoV-2 antibody positive rate of 57% in Bergamo of Italy; 20% in New York city; 17% in London; 7.3% in Stockholm; about 2 to 6% in Hubei and Wuhan; and possibly <0.2% in HKSAR. These objective findings are a testament to the fact that China and HKSAR have successfully won the initial battles against COVID-19. Thanks to all our frontline healthcare workers for their professionalism, and our fellow citizens for their responsible civility. But we must not be complacent because the battle will not be any easier in the coming winter. For example, testing of patients with mild respiratory symptoms at primary care level is still not readily available which makes it difficult to detect early cases of cryptic community transmission. Furthermore, there are now reports of COVID-19 reinfection in HKSAR, Europe and US. Thus recovered COVID-19 patients should still comply with all the recommended hygienic measures. To improve the efficiency of contact tracing, every citizen should use their mobile phone to take photos of the car numbers of public transport, eateries or shops that they have visited in the last 7 to 14 days. Inductive logic, pragmatism, determination, and hard work are our best weapons against COVID-19.

An Overview of COVID-19

Professor David SC HUI
Department of Medicine & Therapeutics, The Chinese University of Hong Kong

Yuen Wo Road sports center with a big group of workers for the universal community testing programme

Since 31 Dec 2019 when unusual cases of pneumonia in Wuhan, China were reported to the World Health Organization (WHO), which subsequently announced the extent and evolution of the global outbreak of COVID-19 as reaching a pandemic on 11 March 2020, over 30 million people have been infected globally with at least 945,000 deaths as of 17 Sept 2020.

HK has encountered three waves of COVID-19 since Jan 2020. The first wave (Jan-Feb, n=95) was related to travelers from Wuhan while the second wave (March to June, n=1110) was due to influx of returnees from Europe and North America leading to substantial community outbreaks. Containment measures and social distancing measures worked effectively in the first two waves in controlling the outbreaks. Examples of containment measures included early isolation of suspected cases and treatment of confirmed cases, quarantine of close contacts and returnees from overseas, and border control (quarantine of mainland and overseas travellers from 6 Feb and 15 March respectively). Social distancing measures included cancellation of mass gathering events (marathon and book fair), school closure, office at home, visiting disallowed in nursing homes in order to protect the elderly, restrictions on restaurants (4-8/ table; 50% sitting capacity; 1.5m distance between tables) while bars, karaoke, beauty shops, gym..etc were closed for a considerable period following community outbreaks.

The current big third wave has started since early July (n=3789 as of 18 Sept 2020) and is due to a number of factors including exemption of high risk groups from testing (esp aircrew, sailors) before 8 July 2020, lifting of restrictions on restaurants on 19 June 2020 from 8 persons per table to no limit, public fatigue of social distancing measures, outbreaks in nursing home following visiting in mid May and infection due to D614G mutation rendering SARS-CoV2 much more infectious. Over 100 aircrew and seafarers have been confirmed to have COVID-19 following routine testing as from 8 July 2020. The case fatality rate due to COVID-19 in HK has gone up from 0.6% in early July to 2% as many older subjects were infected with a fatal outcome in the third wave. The recent universal community testing programme of 1.78 Million people in HK from 1-14 Sept 2020 has detected 32 new cases while 20 were of unknown sources, indicating silent transmission in the community.

Treatment of COVID-19 has been facilitated and guided by timely published data in recent months. While beta-interferon based combination has remained the firstline treatment in HK for patients with mild to moderate infection due to the handy availability,[1] remdesivir

Prof David Hui in Yuen Wo Road sports center with Mr Patrick Nip and Prof Sophia Chan during the universal community testing programme

is being reserved for more severe cases due to its limited availability,[2-4] while dexamethasone 6mg daily for up to 10 days has been prescribed in the second week of illness in patients with respiratory failure not responsive to antiviral treatment.[5,6] Despite the initial interest, anti-IL6 and hydroxychloroquine have been found to be not useful for treatment of COVID-19.

The fourth wave is likely to hit HK anytime in Autumn and Winter. It is important to maintain good personal protection (surgical masks and hand hygiene), tight border control to prevent imported cases, early isolation of suspected cases and treatment of confirmed cases, and social distancing measures. The designated government out-patient deep throat saliva collection service has been expanded to 40 clinics for patients with mild respiratory symptoms while general practitioners must maintain vigilance and assist in the referral of patients for collection of specimens. With enhanced laboratory testing capacity in HK, periodic testing of high risk groups (eg nursing home carers, professional drivers, foreign domestic helpers on arrival, workers in restaurants, markets, etc) is now feasible and hopefully the risk of a major community outbreak is minimised. Until COVID-19 vaccines become available in 2021, it is inevitable to have some degree of social distancing measures as part of routine activities of daily living.

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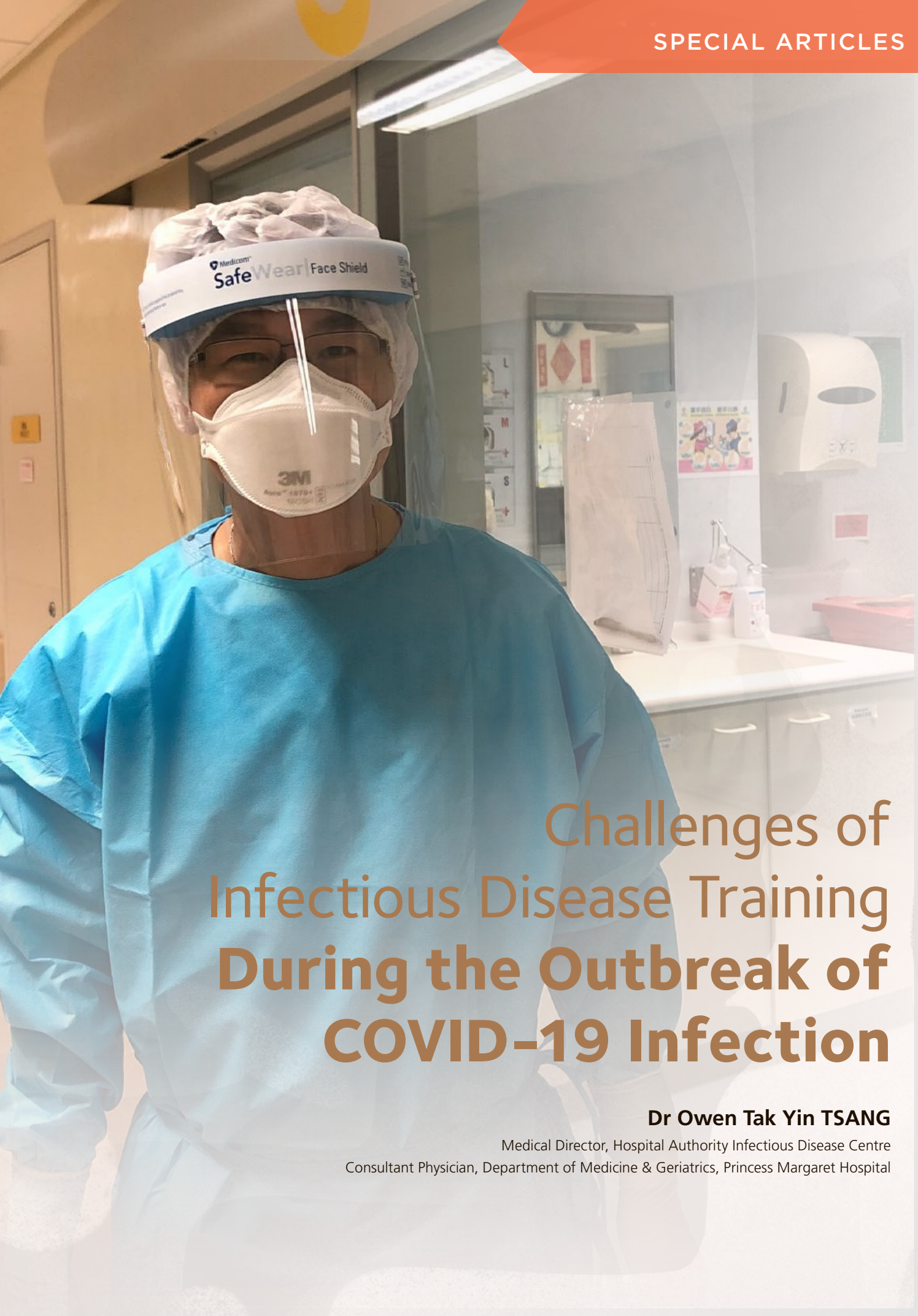

Challenges of Infectious Disease Training During the Outbreak of COVID-19 Infection

Dr Owen Tak Yin TSANG
Medical Director, Hospital Authority Infectious Disease Centre
Consultant Physician, Department of Medicine & Geriatrics, Princess Margaret Hospital

Infectious Disease (ID) is indeed a fascinating subject and is always a popular theme for movie making. I can still remember vividly that Dustin Hoffman (cast as an ID expert in the movie "Outbreak" filmed in 1995) risked his life to save his wife (played by Renee Russo), infected with a deadly virus similar to Ebola, by injecting the antiserum to her. More recently in 2011, another movie called "Contagion", played by Matt Damon (husband of an infected person) and Kate Winslet (as an expert of the United States Centers for Disease Control and Prevention (US CDC)), was also quite intriguing. One of the locations in this movie was filmed in the Hospital Authority Infectious Disease Centre (HA IDC) here in Hong Kong. Dramatically, Kate Winslet died after the infection in the movie. The scenarios in these movies are so familiar to us nowadays as we have encountered the outbreaks of Severe Acute Respiratory Syndrome (SARS) in 2003 and the COVID-19 just now. However, the reality will never be that exhilarating and romantic. SARS claimed 299 precious lives in Hong Kong, including 8 healthcare workers (HCWs). COVID-19 infection has overturned the world and has made more than 600,000 people perished. Up till now, we still could not find a cure for it. It is beyond doubt that clinicians equipped with knowledge and skills in handling infectious diseases are earnestly and urgently needed. Unfortunately, training in ID has faced many challenges, especially during major community outbreaks like the COVID-19 infection.

History of ID training

With thanks to the wisdom and foresight of our predecessors in the College of Physicians, ID has been consolidated as one of the specialties in the Internal Medicine training since the mid 1990s. However, the pathway of ID training has never been easy. Because of the shortage of ID trainers, experts in different specialties with immense experience in various IDs, like hematology, gastroenterology and neurology, became the "grandfather" trainers. The unfamiliarity of the subject and perhaps the lack of a private market deter basic physician trainees from joining the training program. With the upsurge in HIV, multi-resistant, nosocomial, immunocompromised and travel-related infections in the early 90s, ID training has become more important. Nowadays, the specialty becomes more diversified as more and more elements, like the antibiotic stewardship program (ASP) and the outpatient parenteral antimicrobial program (OPAT), have been injected into it. Over 25 years of struggling, there are about 40 fellows graduated from the ID programs.

Clear and present danger

It is hard to imagine HCWs fighting ID could lose their lives during work, though there are always a "perceived" risk. The arrival of SARS shifted the paradigm a lot. People may have to prepare to sacrifice a lot while performing their duties. The ID specialty is the first responder to any major community outbreak. Although there is help from other specialties, ID colleagues have the unshakable responsibility to dip into the mud. During the time of 1918 influenza pandemic, the influenza-related mortality among the HCWs was about half of that of the general population[1,2]. The case fatality rates (CFR) of SARS and MERS among the HCWs were not particularly higher, but the attack rates could be up to 21% and 18% respectively[3]. In an early report of the COVID-19 outbreak in China, 3.8% of the cases were HCWs, and 14.8% of them are classified as severe with a CFR of 0.3%[4]. Based on the WHO weekly report, however, as much as 27% of the HCWs could be infected[5]. Having said that, some diseases can contribute an exceedingly high CFR among the HCWs. Ebola is one of these deadly diseases having a CFR of 40-90%. Ebola-related CFR among the HCWs could be 100-fold higher than that of the general population[6]. In 2014, when we had the first suspected Ebola case admitted, some HCWs refused to take care of the patient out of fear. This is totally understandable. However, most colleagues, especially for those with intense training and real-life experience in handling various IDs, could exemplify their professionalism by offering help to these patients. This type of clear and present danger may scare trainees away as ID nowadays is a relatively "risky" specialty..

Infection control challenges

Infection control and handling outbreak infections have become one of the core business activities of the ID specialty. Despite the altruistic attitude of some ID trainees, the provision of a safe environment to them is the obligation of the hospital senior management. There are more than 1100 airborne infection isolation (AII) beds established after SARS within the Hospital Authority. This type of hardware can effectively contain the virus and protect the HCWs from the diseases. Besides hardware, infection control training is equally important in preventing transmission. Perhaps colleagues working in the field of ID are more likely to perform Personal Protective Equipment (PPE) donning and doffing and have more intensive training in infection control. Nowadays

simulation training on infection control provides very effective and safe learning opportunities for ID trainees to get acquainted with the management of the COVID-19 cases, especially on some of the high-risk procedures like intubation and resuscitation. Up till now, there were only several HCWs suspected to be contracted from contacting COVID-19 confirmed cases locally. Having said that, all these trainings have to be regularly updated and intensified especially during community outbreak.

Technological challenges

2020 is the year of isolation. Besides the activation of AII rooms, social distancing is one of the key successful strategies to halt the transmission of COVID-19. Shrinking the contact time between the patient and an HCW can certainly protect the HCW from contraction. This has also triggered a lot of technologies that can help bridge the gap of minimal interaction. Facetime, smartphones, wearable devices, robots, teleconferences and other digital technologies are very useful to achieve this goal. Technology can also be applicable in a bigger scope. Digital thermometers and thermal cameras are widely used in a lot of places to screen individuals for diseases. Unfortunately, there is a significant proportion of asymptomatic infected cases that make disease control and prevention challenging. Artificial intelligence (AI) for diagnostics, machine learning, virtual care or telemedicine platforms helps a lot in the clinical management of confirmed or suspected cases. A cloud-based AI-assisted computer tomography (CT) service is employed to screen for COVID-19 pneumonia cases in China. This technology can process CT images promptly and provide an accurate diagnosis within seconds[7]. Besides clinical management, various training activities have become web-based. It makes training more flexible and much safer by abiding by the rule of social distancing. Despite all these advantages, personal confidentiality and data security are major concerns. The minimization of patient connectivity may also carry the risk of overlooking some of the key clinical features which can only be recognized by careful history taking and physical examination. Anosmia and ageusia are two relatively specific symptoms of the COVID-19 infection that need careful interrogation. About 2/3 of the infected cases reported these olfactory and gustatory dysfunctions, indicating the significance of this history in the early diagnosis[8]. The dermatologic and ophthalmologic manifestations of the COVID-19 infection can be easily overlooked without a thorough examination. The eye symptoms include conjunctivitis, conjunctival secretion and congestion, itchiness, foreign body sensation and dryness, with a prevalence ranging from 0.5% to 3%[9]. The dermatologic symptoms, however, could be more commonly observed in COVID-19 patients. The prevalence could be up to 7.8% of all infected cases with erythematous rash being the commonest manifestation[10]. These symptoms need to be elicited by meticulous interaction with the patients. In fact, one of the whistle-blowers, Dr Li Wenliang, voiced out his concern regarding the transmission of the COVID-19 in Mainland China, was an ophthalmologist. Unfortunately, he died from the infection and was believed to be contracted after examining an asymptomatic COVID-19 infected glaucoma patient in the hospital. Therefore, it is important to strike a balance between technology and clinical sense.

Psychological burden

The quest for diagnosis, management and prevention of an entirely new disease is fascinating for the ID trainees. However, the workload in looking after the patients could create a lot of stress and psychological burden which could discourage them from engaging in the medical industry in the future. The practice of physical distancing and self-isolation, the potential shortage of PPE, the uncertainty about the duration of the crisis, and sometimes information overload could further exacerbate the psychological distress. A study done in Hong Kong during the time of SARS outbreak in 2003 demonstrated that those HCWs looking after SARS patients were at a higher risk of having chronic stress, depression and anxiety[11] and adequate infection control training was protective[12]. This is also true for HCWs during the COVID-19 outbreak. Medical HCWs involved in taking care of the COVID-19 confirmed patients in Mainland China were more likely to be associated with anxiety, fear and depression than the administrative staff or non-medical HCWs[13,14]. However, HCWs with more experience in handling public health emergency had better performance in mental health, social support and resilience, and better protection from psychological abnormalities[14].

Final remark

The COVID-19 infection is destined to stay with us for a long while. We have to face this new reality that changes our way of living, daily practice, training and almost everything. ID training becomes more significant as trainees are entrusted with the role to drill into problems that may shock the world. To prepare a "Special Weapons And Tactics

(SWAT)" team for the community outbreaks, ID trainees have to be constantly bombarded with various types of IDs. Dragging them too much in other non-infection related activities would whittle away their expertise and most importantly their willpower. This may explain the high attrition rate of ID fellows over the years. This is certainly a big hurdle, especially when we are facing a rigorous overall manpower shortage issue. Nevertheless, we have witnessed more trainees joining the program and bringing a lot of energy into the specialty over the last 17 years after SARS. The outbreak of COVID-19 has brought along many concerns as this thriving and fragile specialty has to face the real-time challenge again. Most of the new fellows and trainees have not gone through "the baptism by fire". To my surprise, however, some of the new trainees nowadays are more mature and thoughtful than I think. I am pleased to learn that some newer ID trainees are well prepared for this "big show" even before they are committed to joining the specialty. Though there are still challenges ahead, I am quite confident with the addition of this new blood.

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Coronavirus pandemic – **Moments to Teach**

Dr Kai Ming CHOW

Consultant, Department of Medicine and Therapeutics
Prince of Wales Hospital, The Chinese University of Hong Kong

For many of the doctors and students, the Covid-19 outbreak is the first time to see the specter of a virus jumping continents, across the community, and changing life for everyone around the globe.

That brings us chance to teach our new generation of doctors how to work out the ways to stop the disease from spreading. And more importantly, how to view the doctor's work as a calling.

In 1976, a doctor named Jean-François Ruppol, director of the Belgian government's medical aid mission in Zaire, told the public during the deadly Ebola epidemic, "You must apply the Ancient Rule for this new disease." That's a rule for combating another disease, smallpox; people who were suspected of having smallpox, and their young children, would be placed in a hut outside the village. Any physical contact with the victims was forbidden. After a certain amount of time, if anybody in the hut had survived, they were allowed to go back to the village. When there were no more signs of life in the hut, it was burned, with the corpses in it. To us, this is more or less what we mean by quarantine and isolation. During one of the Catholic missions, Dr. Ruppol had to deliver a baby from a gravely sick woman with very high fever, conjunctiva suffused with blood. The woman's life was obviously hanging on a thread in the midst of Ebola outbreak. Ruppol wasn't sure of the diagnosis but tried his best to get the baby out with his scalpel. Soon after the baby was delivered, Ruppol noted that it wasn't breathing. Even he had given speeches all over the Ebola zone warning people not to touch anybody who had the symptoms, he acted out of instinct, ripping off his surgical mask, to give rescue breaths to the baby. One puff of air, and then several more light puffs. The baby let out a cry, exhaling Ruppol's breath. It was alive. Ruppol quickly realized what he was doing. He was obviously tasting the body fluid of a baby coming out of the birth canal. That could mean a taste of death.

I am not asking our students to follow the example of Ruppol who had urged people to do the hardest things, telling them to turn cold hearts on the sick and frail, but then did the opposite (and nearly lost his head over a baby). There is no right or wrong thing in the teaching moment. We provide doctors smart tips to protect their safety, which is of utmost importance to me. I still remember the instruction given in February, when doctors were repeatedly reminded to put on personal protective equipment (PPE) during resuscitation and avoid bagging of patients suspected or confirmed to be infected by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Proper precautions cannot be emphasized more given the threat of the disease on healthcare workers.

How well did we do? We made very dedicated effort to follow the procedures of donning and doffing PPE through training, coaching and returned demonstration. I must say we did well. It isn't that easy during the crisis, though. When patients were as sick as those seen by Dr. Ruppol, we entered the battlefield with a high level of stress. Two of my Covid-19 patients recently deteriorated rapidly and the airway management got more and more difficult. Our doctors in internal medicine as well as those in intensive care were demonstrating exactly the level of altruism of Ruppol. One patient could hardly be rescued with difficult airway, and our internal medicine doctors decided to use laryngeal mask airway and start bagging – despite the teaching of "no no" – to keep him alive. At one point, two of the intensivists decided to remove the full face shield during the final moment of tracheal intubation because the face shield became fogged. Should they do so to save life? Yes and no. A clinical and ethical catch-22.

Don't get me wrong. I didn't mean to extol the "virtue" to sacrifice our doctors' life to save that of the patient. Patient's life is precious but doctor's life is as important as the patient's. For years, ever since the SARS saga, I've had the belief that we should provide the best protection for the healthcare workers. When I think about how Ruppol, our internal medicine and intensive care doctors ended up saving the patients, I must say that it's one of the pinnacles of practicing medicine. The story of all our noble and devoted doctors, as how they behaved by instinct, shall be told and taught in the highest level of recognition.

With that, I humbly say "Salute."

"Walk the talk" is always the best means to teach and inspire our new generation of doctors. The team in our isolation wards at the Prince of Wales Hospital is one of the best examples.

"However, there's one thing I must tell you: there's no question of heroism in all this. It's a matter of common decency. That's an idea which may make some people smile, but the only means of fighting a plaque is – common decency." "What do you mean by 'common decency'?"... "I don't know what it means for other people. But in my case I know that it consists in doing my job."

– Dr. Rieux and Rambert the journalist conversing in *The Plague* by Albert Camus

The SARS-CoV-2 Lesson

Dr Kwok Cheung LUNG
Specialist in Infectious Disease
Consultant, Department of Medicine, Pamela Youde Nethersole Eastern Hospital

In 2003 SARS broke out in the Guangdong province. The epidemic spread rapidly. Hong Kong became one of the most severely affected areas, with 1 755 infected, of which 386 were medical staff. This large-scale community outbreak in Hong Kong caused 299 deaths in total, including eight doctors and nurses. It remains an indelible scar in the collective memory of Hong Kong.

During that time, I was undergoing training in the Respiratory Specialty in the Department of Medicine, Pamela Youde Nethersole Eastern Hospital. As part of the Respiratory team, I shouldered frontline duties and helped take care of SARS patients.

The atmosphere of the whole community then was serious, plagued by uncertainties and fear. I witnessed critically ill and fatal cases of SARS in-patients, and learned of the cross-infection in ward 8A of the Prince of Wales Hospital. It was shocking to realize the inadequacy of isolation facilities in tertiary healthcare. People were extremely worried and sad. The SARS outbreak dealt a heavy blow to the general public and society at large.

Fortunately, the epidemic did not last long, subsiding in June and quickly gone. But it is a big lesson, taking heavy, varying tolls in Hong Kong and neighboring places. Governments are shocked that new infectious diseases can spread so quickly, a virus can be so destructive, and the authorities and the public are so ill-prepared.

Since the SARS outbreak, the Hong Kong Government has embarked on large-scale preparatory work to cope with possible new outbreaks of infectious diseases in the future. Several did occur in the surrounding areas over the next decade or so, but fortunately they have had little impact on Hong Kong.

But just before 2019 ended, the Mainland China issued a warning to the world about a "new SARS", as a respiratory virus hitherto unknown was spreading rapidly in Wuhan, Hubei Province, quickly resulting in a large number of pneumonia cases and many deaths. Due to the uncertainty of information about the new epidemic, many countries and regions have not responded quickly enough.

But the Governments of Hong Kong, Singapore and Taiwan, which had been severely affected by SARS before, found the situation alarming and responded in no time. In Hong Kong, the Department of Health and the Hospital Authority held a number of urgent meetings to discuss the local preparedness and contingency measures, mobilizing significant manpower and resources.

17 years ago, I was a front-line junior doctor who was responsible for taking care of SARS patients in hospital. As the treatment approach was decided by supervisors, my job was relatively straightforward to carry out the instructions in full. There was an end to daily clinical work after which I might retire to rest.

With the Hospital Authority for more than 20 years, I have come a long way from working as a junior frontline doctor to now shouldering the responsibility of leading a team of medical staff to fight the epidemic. The most obvious change is in the state of mind.

17 years ago, panic hardly came to my mind and I might occasionally worry about being infected. Now I have to be worried about the safety of my whole team and think about my family. The pressure is unprecedented. How to protect frontline colleagues and to treat patients have become the most important issues.

On 23 January 2020 Hong Kong detected the first new coronavirus pneumonia case coming from the Mainland and the number started to grow with community infection.

Surprisingly, the initial outbreak clusters were mainly found in the eastern part of Hong Kong Island. The large number of suspected and confirmed cases emerging drastically increased the demand for isolation facilities in the HK East Cluster of the Hospital Authority. Following the Emergency Response protocol, both PYNEH and RH quickly opened isolation wards, significantly reduced non-emergency services and freed up resource and manpower for outbreak deployment. We had not expected the great difficulties we encountered during the process, and a large number of problems emerging had to be resolved expeditiously.

The early epidemic situation in Wuhan, Hubei Province was horrifying, with a large number of serious and death cases. The transmission was powerful, infecting health care workers also. There were many unknowns. The local public and medical staffs were extremely disturbed. In Hong Kong we are also concerned about possible infection of medical staffs and patient casualties, which would demoralise my team and other colleagues.

In addition to the confirmed and suspected cases, there are the so-called "invisible" patients who would gradually surface in the community. Without honestly disclosing their travel history, they might be wrongly sent to the general medical wards ill-equipped with isolation facilities. And news of delayed diagnosis and infection risks was spread quickly, causing panic inside the hospital. Colleagues, alarmed by the danger of infection which seemed to be everywhere, sought high-spec protective clothing and N95 respirators indiscriminately. Such a heavy use of PPE has depleted the stock quickly, which could hardly sustain adequate supply to colleagues working in high-risk areas. But any advice on prudent use of PPE might just backfire and damage the mutual trust among colleagues. Coupled with the strike of a number of healthcare workers at the time, the overall morale of staff was low. Fortunately, the problem was gradually solved under the leadership of our CCE Dr. Luk Che Chung.

There is a lot of uncertainty about COVID-19, and every day we have to closely track and exchange relevant medical information, and encourage patients to participate in university medical research in the hope of finding ways to cure. I could still remember that some of the early patients were very scared, worrying about the deterioration of the disease and possible death. The atmosphere in the ward was very heavy. Fortunately, almost all patients agreed to participate in the study of the treatment of COVID-19 led by the University of Hong Kong. And it would be a joy and an encouragement to staff when they saw patients improved in their clinical condition and discharged. Some cases were of course serious and critical, such as those coming from local high-risk groups including the Buddha Hall cluster, the hotpot and mahjong clusters, especially among the elderly and chronically ill. Professors from the Intensive Care Department and the University of Hong Kong played the most important role in the handling. In the end, critical patients recovered one by one and there was only one death in the first 200 cases at the PYNEH. The overall mortality rate in Hong Kong is also low, with only four deaths in the first 1,000 cases. The proportion of critical cases is not high either.

From mid-April to the end of July, there were sporadic cases in Hong Kong, mainly imported from abroad, and the situation seemed to have stabilized and social distancing measures might find room for relaxation. Outbreaks in Chinese Mainland, Taiwan and Macau were also under control. Unwittingly, the epidemic has spread rapidly to most countries and regions around the world, infecting more than 20 million people, killing hundreds of thousands and bringing new cases to a new high in many countries every day.

Apart from the direct casualties caused by the disease, all sectors in the community have been affected to varying degrees, with many trades closing shops and laying off workers. The third wave of local infection arrived in July coming faster and more ferociously than before, and the large number of local cases and unknown sources have made tracing more difficult and complicated. The number of new cases is increasing every day, adding great pressure to most hospital isolation facilities. Second-tier hospital wards and community isolation facilities were called to service.

The road ahead seems to see no end in sight. But fortunately, China, Britain, Russia and the United States have successively announced that they have developed effective vaccines for the new coronavirus, which could be manufactured and used in the short term.

The high transmission of the 2019 new coronavirus and the unrecognizable characteristics of the disease make it like a haunting ghost. No one can be certain about when the epidemic would disappear or whether it would be long-lasting. And given its propensity to attack high-risk patients and the elderly with a high mortality rate, the development of effective vaccines and treatment programmes is urgent. The Government and every citizen have a responsibility to fight the epidemic together. There is no room for complacency. We must protect every one among ourselves. Keep a social distance and wear a mask, where possible and as ever.

Older Adults and COVID-19 – Healing through Isolation & Reconnection

Dr Carolyn PL KNG
Consultant, Department of Medicine and Geriatrics, Ruttonjee Hospital
Dr TW AU YEUNG
Consultant, Department of Medicine and Geriatrics, Pok Oi Hospital

Introduction

John is at the other end of the COVID journey, after prolonged intensive care with multiple organ failure, delighted to be finally at home.

On a home visit with the Integrated Care and Discharge Support (ICDS) Team physiotherapist, it offered me the privilege to learn his interests, meet the family and understand his wishes. As a geriatric medicine trainee, it was a gratifying experience to appreciate his humanity and contribute to his recovery. He walked with a frame with bilateral foot drop, so we taught him how not to fall when going to the bathroom, personal care tips which preserved his dignity, reviewed his medications and lifted his spirits by cheering him on. He appreciated the practical applicability of home based rehabilitation and empowerment. Together, we had one goal; to restore his marked deconditioned state back to the robust elderly he was, running a half marathon only six months ago.

At 72 years, John realizes how fortunate he is not to have contributed to the high elderly COVID mortality statistic observed elsewhere. In Hong Kong, there were 7 deaths out of 1269 confirmed cases with majority of COVID mortalities in elderly. On 6 July 2020, the first aged care home COVID outbreak occurred.

We share our experience in the care of older people during the COVID-19 pandemic, along the elderly patient journey between hospital and community. That seamless yet porous hospital-community interface is guarded by strict infection control, vigilant admission testing, restricted access to health and care services, which span cross-sectoral agencies, including Residential Care Homes for the Elderly (RCHEs).

From community to hospital

Elderly commonly have acute respiratory symptoms. Their hospital journey begins in A&E, then to infection wards for testing before transfer to general medical beds. The singular focus on infection triage, physical isolation and testing spares no-one, not the frailest nor those at the very end of life. All this lends to a sterile alienating process. It must be frightening for those demented, bedbound and frail to see masked faces and face shields.

And for those dying, goodbyes are limited and shortened or sometimes too late.

Isolation at end of life

A senior geriatrician described her experience in surveillance wards.

"The atmosphere of efficient and protocol-driven medicine was very new to me on my first day in isolation ward but I was disoriented by the unfamiliar environment and new practices. I met a terminal lung cancer patient who was admitted to our isolation ward due to dyspnea with a bloody pleural effusion. Being a Geriatrician trained in holistic care, I spoke to the patient about his grave prognosis and imminent death, explored his last wishes, withdrew inappropriate monitoring and treatment, and allowed his wife to stay with him in his last hours. Over the next two weeks I continued to see patients who were critically ill, requiring non-invasive ventilatory (NIV) support or intubated, but who were declined admission to the intensive care unit due to frailty or advanced diseases. Many of them were over 80, some of them from aged homes.

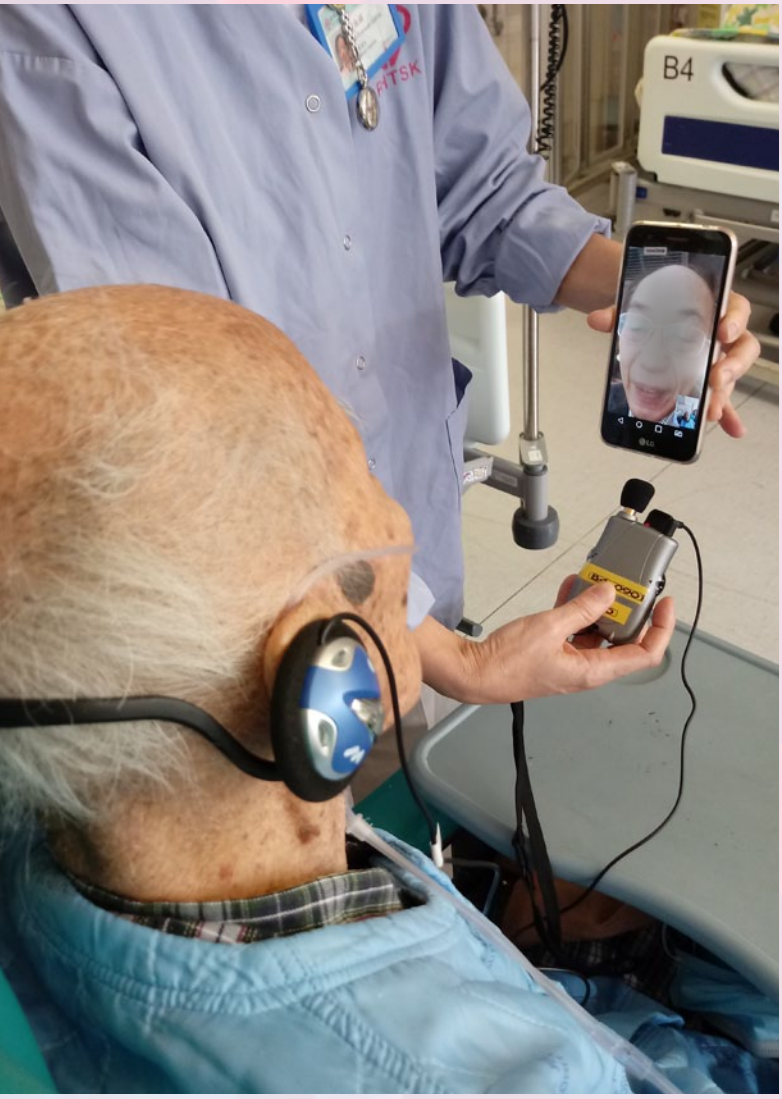
In my brief experience in these isolation wards, I could truly grasp the meaning of "isolation".

I discovered that staff in isolation ward knew very little about end of life care. In these purpose-built rooms, human contact is a rare entity. Separated by glass panes and hooked up to monitors, patients with any sort of communication barriers, be it IT- or verbal, received an efficient yet dehumanizing medical processing. When the world is focusing on the safety of the masses, the frail, the silent and the old has no voice. When the next epidemic comes along, I do hope we could have some elderly-friendly isolation wards."

Such multiple transfers, staff in PPE and no visiting policy constitute the perfect recipe for challenging elder-friendly care delivery. Infection control priorities extinguished routines of bedside family engagement for geriatric or end of life care, rehabilitation and discharge planning. Families would usually participate in the therapeutic recovery of elderly, by assisting in daily care for feeding and hygiene, providing collateral information for demented patients as well as emotional support. Severing this connection leads to depression and sense of abandonment in the old.

In our IT age, reinventing virtual connections during the hospital stay between older patients with their family would seem simple, with video-conferencing as a preferred experience over a telephone call. However, many older people do not own nor are able to operate smartphones. Some are too ill or mentally lack competence to make a telephone call. So, telemedicine is

not that 'virtually perfect' solution but may paradoxically and unwittingly heighten inequities in access within elderly care. The crux is not hardware but instead, on the greater challenge of embedding these humane elements in a new COVID-19 era of elderly care by staff.



Reconnecting Elderly in Ward to Family at Home

From hospital to community

Services supporting discharges were suspended or limited during COVID19 to reduce cross-infection risks and deploy manpower for infection control settings. Geriatric Day Hospital (GDH) service was suspended. Social sector services only provided meals delivery, escort, nursing and drug administration services. This affected hospital discharges, but the impact was initially lessened because of lower ward occupancy due to public aversion to hospitalization.

Rehabilitation and dementia care were most affected, and families observed accelerated functional or cognitive decline of their parents during this period. Carers without recourse to respite care hovered towards burnout. HA GO Rehabilitation (IT) modules engaged carers to facilitate home based rehabilitation, inadvertently adding to carer strain, as not many elderly could navigate these apps alone.

Meanwhile, HA's outreach services for elderly living at home (eg ICDS) and institutions (eg CGAT) maintained full provision of essential healthcare to keep elderly out of hospitals.

An interesting observation is the natural evolution of telecare for chronic disease management post discharge. For geriatrics, telemedicine cannot replace direct patient care, but its adjunctive role in fast track or infection outbreaks merits consideration, while adhering to ethical principles on telemedicine published by the Medical Council of Hong Kong in 2019, such as the importance of doctor-patient relationship, informed consent, privacy, security of records and treatment evaluation.

Telecare in context

For Fred, a patient similar to John, his ICDS case manager reported swelling of both feet. He had heart failure, just discharged two weeks ago. Fred refused to visit specialist outpatient due to infection concerns. In an intuitive moment, the ICDS geriatrician and case manager at Fred's home facilitated a telemedicine consultation with patient consent. Assessment of heart failure and management via direct patient-doctor video communication was welcomed by all parties. Clinical documentation and treatment were no less compared to a hospital based consultation. Such virtual fast track consultation for chronic disease exacerbation would be unimaginable in more conservative times, but patient choice and COVID offered reasonable justifications.

Fred did well, his swelling resolved one week later with positive feedback about his new experience. Patient empowerment education delivered and blood test with community nurse was arranged. For durability, his lifelong access to HA Patient Support Call Centre was introduced and the call number pinned on his refrigerator.

Reconnecting Elderly at Home with Geriatrician in Hospital

In Hong Kong, care homes have not been massively hit by COVID-19, unlike overseas care home residents who account for 20-80 percent of the total mortality. This may be surprising. Our RCHEs have frail multi-morbid residents living in cramped poorly ventilated environments unconducive to infection control measures, coupled with lack of staff, PPE, handwashing or toilet facilities. With 7 percent of Hong Kong's elderly residing in over 700 care homes which provide over 70 000 places, Hong Kong has the highest institutionalized rate of the elderly globally, double United Kingdom and United States, and three times Singapore. It would be an unimaginable tragedy if Covid-19 took seed in our care homes.

In 2003, SARS outbreaks in Hong Kong nursing homes etched a painful memory which incubated infection control mindset and readiness. Centre of Health Protection (CHP) Guidelines for prevention of Coronavirus disease 2019 (COVID-19) in RCHEs stipulated daily temperature checks; no visiting; hygiene; PPE use; cessation of group activities; resident segregation and staggered meal-times, staff arrangement to avoid cross-infection.

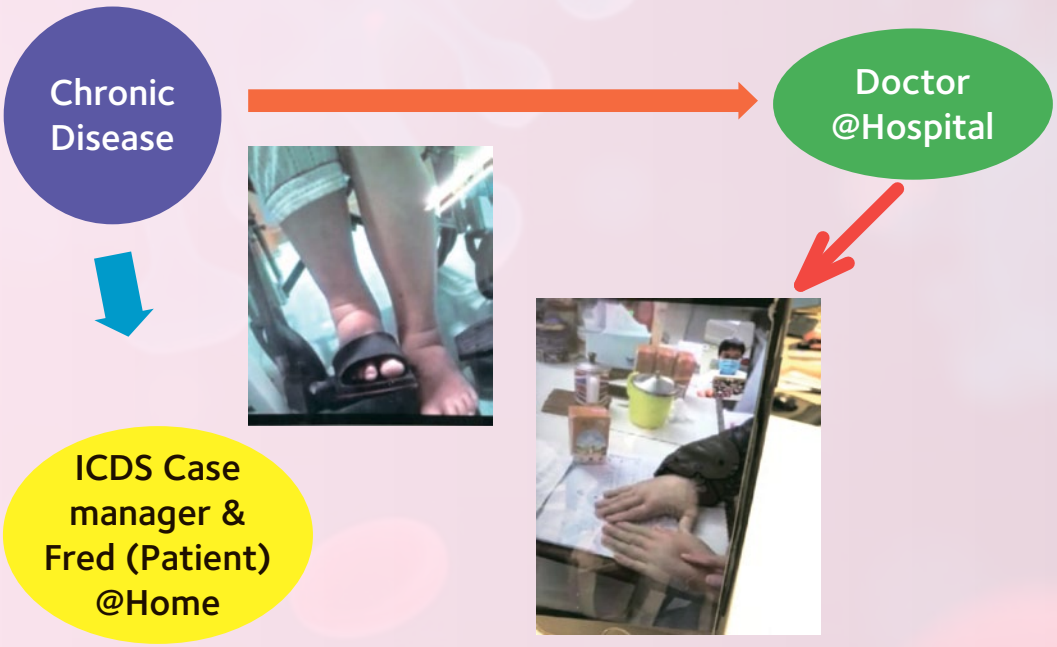
CGAT continued onsite nursing care and doctors clinic, with tele-clinics during the initial uncertain phase of COVID-19. Building on decades of good partnership with care homes, CGAT contributed to preventive work and the prudent preparation for a RCHE COVID-19 outbreak plan. Present quarantine settings are unsuitable for RCHE residents, who are mostly dependent for daily care. A contingency plan by a multi-agency government task force engaged HA's geriatricians to advise on the preparation of elderly quarantine care settings in resort villages, alongside other measures to avoid overwhelming hospital services. The plan was activated on 7 July 2020, with conjoint visit to 1st affected RCHE by CGAT with CHP to facilitate onsite testing, resident transfer to quarantine site, handover to designated CGAT to receive and provide continuing medical and nursing support.

Conclusion

John is a reminder that COVID-19 pandemic targets older people and of the necessary balance between isolation and reconnection for healing. Indeed, how we care for the old and frail is a reflection of our humanity expressed in the art of medicine. His good outcome is attributed to the effective strategies employed throughout Hong Kong at hospital and community settings, executed with coordinated fast response through wide partnerships. As geriatricians, we treasure our role among physicians to battle the pandemic with art and science to ensure our elderly are spared the devastating outcomes experienced elsewhere.

Acknowledgements

Dr Jenny Lee (AHNH/TPH) and Dr Maria Mo (Higher Physician Trainee in Geriatric Medicine, RTSKH) contributed to the case stories.



From 1918 Influenza Pandemic to COVID-19

Dr Helen Shuk-Ying CHAN
Associate Consultant, Infectious Disease Team
Queen Elizabeth Hospital

While Hong Kong people were happily decorating their homes to welcome the Year of Rat, much to our annoyance, an unwanted guest called "COVID-19" showed up in Jan 2020. On 11 February 2020, International Committee on Taxonomy of Viruses (ICTV) finally named the novel virus appeared since December 2019 in China as SARS-CoV-2 and World Health Organization (WHO) officially announced the infection caused by this virus as COVID-19.

Hong Kong's very first case appeared on 22 January 2020, just 3 days before the Lunar New Year. More than 6 months into the COVID-19 pandemic, we have now entered the 3rd wave since July, much greater in magnitude and severity compared to the previous 2 waves. More than 2000 local cases were confirmed in July 2020, superseded the total numbers of confirmed cases (both imported and local) in the past 6 months. Our already-fragile public healthcare system is further overwhelmed by the current crisis. As of 16 Aug 2020, COVID-19 caused more than 770,000 deaths worldwide, and the total numbers of confirmed cases surged from 20 millions to 21 millions in less than a week. We see flare-up of confirmed case number after easing of restrictions, different countries are facing the challenge to balance between the needs of social restrictions in order to quell further transmission of SARS-CoV-2 and the detrimental impact on economy due to the total or partial lockdown.

Back to 100 years ago, the world most devastating pandemic started from an U.S. Army cook at Camp Funston, Kansas[1]. In spring 1918, hundreds of young and fit soldiers in the training camp were sick and soon the illness swept the whole world. The "Spanish Flu" – as there was no wartime censorship in neutral Spain, which allowed reports of illness by journalists – eventually died down in autumn 1919. Estimated 1/3 of the world population (~ 500 millions) was infected with the novel H1N1 Influenza A virus with gene from avian origin, not until 1997 when the entire genome was sequenced from the lung tissues retrieved from a female body buried by the Alaskan permafrost[1]. 50 millions of people, most were young and healthy, were killed during the 1918 Influenza pandemic, even more than the number of lives perished during World War 1.

Hong Kong was not free from the attack from 1918 pandemic, indeed the attack was actually aggressive and prolonged. The annual registered influenza mortality rate per 100000 populations had skyrocketed from 0.2 in 1915-1917 to 68.1 (average) in 1918-1922[2]. Situated in the "epicenter of the influenza basin in southern China[2]", Hong Kong continuously caught the media spotlight due to the emergent of 2 new strains of influenza A in 1957 (Asian Flu, H2N2) and 1968 (Hong Kong Flu, H3N2)[3], not to mentioned about the 1997 H5N1 avian flu incidence. The painful memory of Severe Acute Respiratory Syndrome (SARS) in 2003 demonstrated how a super spreader sparkled a major epidemic from a hotel to other parts of Hong Kong, resulting in 286 deaths, 8 of them were healthcare workers. The contacts of the index case set up chains of infection to other parts of the world via air travels and ultimately killed 774 and sickened more than 8000 people[4].

With the challenge of COVID-19 and many more emerging infections, are we much better prepared to face these pandemics than 100 years ago? I will say yes, though we are still enacting same measures as in the Spanish Flu's times. A century ago was the time when the causative organism of 1918 pandemic was initially thought to be a bacterium, it was the time when no effective vaccine to prevent influenza, it was the time when no antivirals and antibiotics – penicillin was discovered in 1928 – to

treat influenza and the superimposed bacterial infections. The only way to limit the spread of this deadly contagious disease was strict civilian lockdown. Schools, churches and other public places were closed, mass gatherings were banned and patients with symptoms were "isolated" in their homes. Mandatory facemask (flu-scarers) laws were implemented in some areas in the U.S. (San Francisco, Seattle etc.), residents who violated the laws will be fined or sent to prison, yet its effectiveness was difficult to assess on its own in as compliance waned and resistance grew with time. The 1918 pandemic spurred the revolutionary advancement of public health system across the globe. We have better reporting, monitoring and surveillance system now, though not everyone is happy with WHO's passivity in the past and current incidence. The success in the molecular virology allows a much rapid recognition of culprit – it took years to isolate and reconstruct the whole genome of 1918 Influenza A virus, but SARS-CoV-2 was pinpointed as the causative virus 8 days after WHO received reports of unexplained pneumonia clusters in China. With the help of molecular techniques, diagnostics are developed in accelerated pace, facilitating the case identification and contact tracing and mitigating further transmission.

The time working in so-called "Dirty Team" is really challenging, and sadly to say frustrating, in many ways. Back to the early phase of the pandemic, we were uncertain about the clinical presentation of the illness and even up till now, we are still not sure about the best treatment approaches for patients with different severity. I felt discouraged to face deteriorating COVID-19 patients but I don't know what I can do to help them. I felt sorry when a terrified staff crying in front of me said she was really worried of being infected by SARS-CoV-2, as she performed sputum suction for a patient in general ward who eventually was confirmed positive. Though COVID-19 is mainly transmitted via droplets of different sizes and human-to-human contact, airborne transmission is also possible in specific circumstances. In order to conserve the N95 respirators and personal protective equipment (PPE), like many of my colleagues, I tried to do as much as I can during each visit to my patients, including blood taking, inserting intravenous catheters, performing electrocardiogram (ECG), drug administration, etc. If truth to be told, working long hours alone behind masks is not pleasant. And the sense of loneliness extended after work due to limited physical interaction with family and friends. I still recalled a scene that a doctor looked outside the window and waved hello to his wife and child during the SARS epidemic, as he stayed in the hospital after work to prevent transmitting the virus to them. And this is how I met my mum since my deployment to "Dirty Team", even in the cold winter nights. Patients and their relatives were also perturbed by the COVID-19-induced isolation. Relatives are not allowed to visit their sick family members after Hospital Authority has activated the Emergency Response Level. Patients who are confirmed positive and those with unknown status – while waiting for results – need to face their last hours of lives on their own. I can imagine how painful and heart-broken the family members are when they are not able to support and say goodbye to their dying relatives.

Even more frustrating is that, as an infectious disease physician, COVID-19 is not the last pandemic that we encounter. The emerging and re-emerging of infectious diseases, including Human Immunodeficiency Virus (HIV)/ acquired immunodeficiency syndrome (AIDS) (1980s), SARS (2003), H1N1 pandemic influenza (2009), Middle-East Respiratory Syndrome (MERS, 2012), Ebola virus disease (EVD) in West Africa (2014), Zika virus (2015) and the current crisis "are not exceptional independent events[5]". Human activities, such as deforestation, desertification, urbanization and consumption of bushmeat, break the boundary between wildlife and human, drive the emergence of new pathogens and favor zoonotic spillover. Rituals, such as shedding of blood and corpse cleansing, have been reported as possible routes of transmission of HTLV-1[6] and EVD[7] respectively. International dissemination of contagious diseases is further spiraled by intensified human mobility and globalization. Though depressing, some parts of the world are attacked by SARS-CoV-2 and other pathogens with pandemic potential simultaneously, e.g. Ebola virus in West Africa and MERS in Saudi Arabia. We never know whether there is a new pathogen emerging in the remotest corners of the Amazon jungle.

The course of COVID-19 remains unpredictable, though it is likely to see a shoot of cases in winter, and the next pandemic is inevitable, what we can do is stay calm and get prepared. We must share the lessons we have learned from previous pandemics and accept the "new normal". Concerted efforts from the governments, experts and the community are crucial to contain the outbreak by implementing appropriate public health measures in line with latest knowledge and behavioral interventions, such as hand hygiene, social distancing and consistent use of facemasks. Nevertheless, let us not forget the devoted and selfless healthcare workers who sacrifice their own time, their moments with their loved ones and even their lives in this battle against COVID-19.

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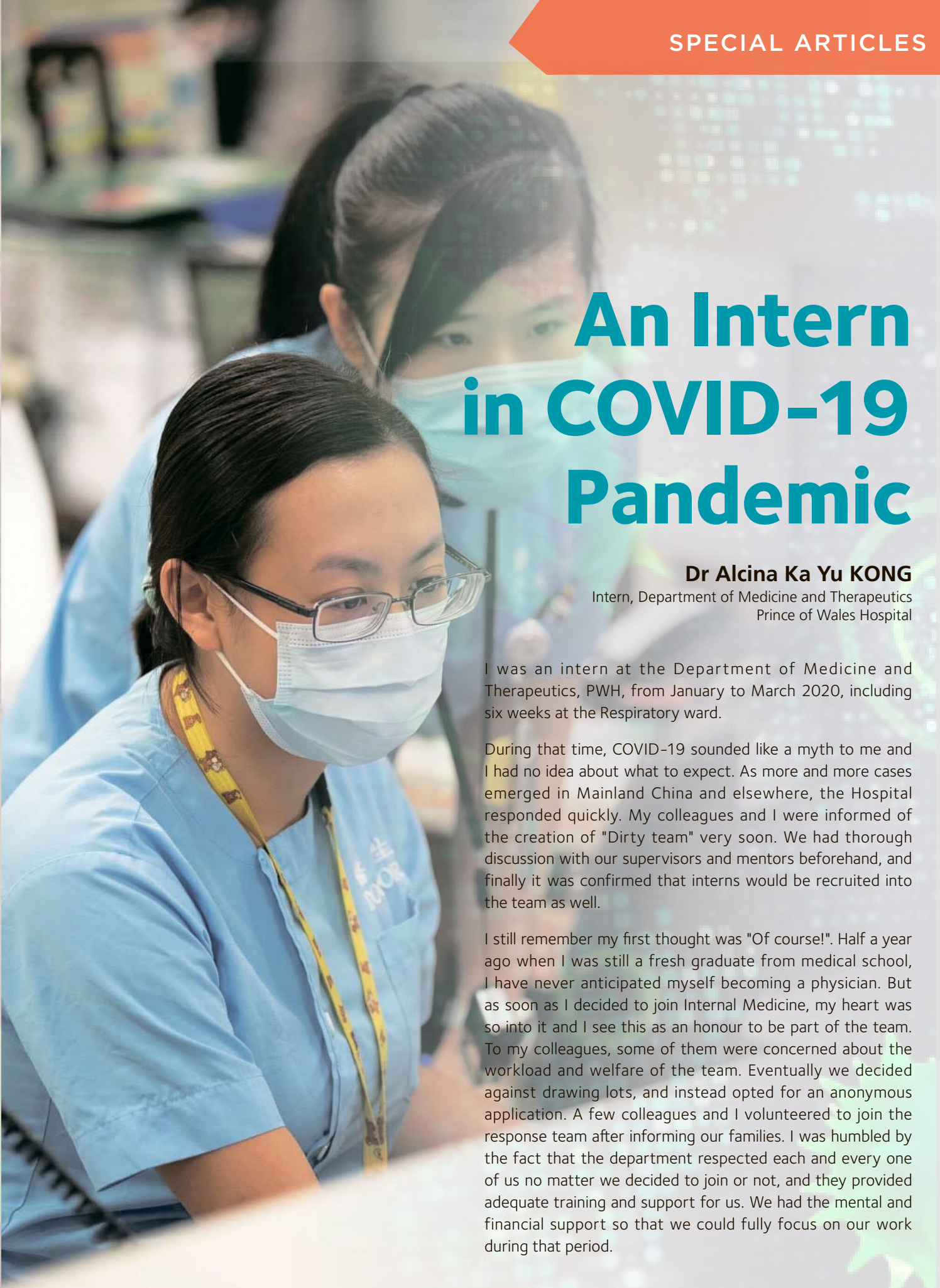


An Intern in COVID-19 Pandemic

Dr Alcina Ka Yu KONG
Intern, Department of Medicine and Therapeutics
Prince of Wales Hospital

I was an intern at the Department of Medicine and Therapeutics, PWH, from January to March 2020, including six weeks at the Respiratory ward.

During that time, COVID-19 sounded like a myth to me and I had no idea about what to expect. As more and more cases emerged in Mainland China and elsewhere, the Hospital responded quickly. My colleagues and I were informed of the creation of "Dirty team" very soon. We had thorough discussion with our supervisors and mentors beforehand, and finally it was confirmed that interns would be recruited into the team as well.

I still remember my first thought was "Of course!". Half a year ago when I was still a fresh graduate from medical school, I have never anticipated myself becoming a physician. But as soon as I decided to join Internal Medicine, my heart was so into it and I see this as an honour to be part of the team. To my colleagues, some of them were concerned about the workload and welfare of the team. Eventually we decided against drawing lots, and instead opted for an anonymous application. A few colleagues and I volunteered to join the response team after informing our families. I was humbled by the fact that the department respected each and every one of us no matter we decided to join or not, and they provided adequate training and support for us. We had the mental and financial support so that we could fully focus on our work during that period.

Eventually, the time came for me to start working in the enhanced surveillance ward come early March. Our team's approach was to minimize wastage of resources. For new admissions, among all from junior to senior ones, would do history taking, physical examination and relevant blood taking. I was amazed by the trust between our team members, in that seniors fully trust our judgement and findings for each admission. They taught us what we should look for and what we should do to prepare for future challenges. On the next day after admission, seniors would supervise me during ward round and guide me on the further management and discharge planning of the cases. Since patients can present with a variety of symptoms, I had ample opportunities to see many cases and perform relevant procedures.

I have never felt more motivated for work and it was definitely the highlight of my intern year. I was encouraged by my seniors to do patient rounds, procedures and daily management. The team spirit was great and all of us were confident to battle the spread of COVID. I almost felt my time in the dirty team period was too short. After leaving the team, the department gave us a brief break and I felt energized when I went back to general ward to work. I feel refreshed and more determined to pursue a career in the medical field.

I did eventually choose to work in medicine, with the dirty team experience being one of my greatest memories in the intern year. As I transitioned from an intern to a medical officer this year, I still feel the passion to serve my patients and fight at the frontline. In early July, there was an enormous spread in the community. It was difficult as a medical officer to bear new responsibilities, to learn new things and to work in a new environment. However, the experience and the memory stuck with me and I only feel being more resilient to face COVID.

Last but not least, I would like to express my greatest gratitude to PWH and KWH for providing me with excellent training and opportunity to explore the medical field. I believe the passion will pass onto every one of us who are working hard at the frontline, and hopefully one day we will beat this virus.

Tour buses standing by to take Hong Kong residents to airport

The COVID-19 Pandemic: **Reflections on the Diamond Princess Cruise Operation**

Dr Bonnie Chun Kwan WONG

Senior Medical & Health Officer
Special Preventive Programme
Centre for Health Protection, Department of Health

"Why don't you seem to be scared or worried about the novel coronavirus?", a colleague from another bureau asked during our mission to Yokohama, Japan for the evacuation of Hong Kong residents from the Diamond Princess cruise in late February, 2020. "I am not fearless," I replied, with composure, "I am just trying my best to overcome fear with knowledge. Knowledge that helps me better understand the virus, and the situation that we are dealing with right now."

Trained as an infectious disease specialist and receiving my overseas training focusing on outbreak management and infection control, I had no hesitation to take up this task the moment I was asked. While initially anticipating it to be a two-day mission, this was proven not the case the moment I landed Japan with other team members from the Security Bureau and the Immigration Department. Despite the meticulous planning prior to the dispatch of the vanguard, every aspect of our plan was fraught with uncertainties and called for agile responses on-site. Liaisons with multiple stakeholders within a very tight schedule were challenging: the Chinese Embassy in Tokyo, Hong Kong Economic and Trade Office (Tokyo), the Ministry of Health, Labour and Welfare and Ministry of Foreign Affairs of Japan, the cruise company, the airlines and the land couriers, to name a few.

This mission turned out to be an eight-day challenge with the least hours of sleep in my life. It was a significant work and life experience for me, not only because it was my first overseas duty utilizing the knowledge and skills that I had acquired throughout the years of my medical training, but it was also a journey to witness the miraculous happenings that were brought about by a team of dedicated people with a common goal – to bring Hong Kong people home safely.

During these eight days, much focus was spent on working out the logistics of the evacuation and implementing maximal level of infection control out of the scarce resources available to ensure the safety of both the evacuees and the staff. It was February 2020, when the pandemic was not even declared, when much less was known about the virus, its mode of transmission and its infectivity, compared to what we were informed of right now. Many a time, decisions were made swiftly and timely based on the best evidence available and as far as practically possible.

Being the one with a better grasp of the medical aspect of the operation,

I might not be the one who was fear-stricken, but others might be, especially those who did not have any medical background. As doctors, we are trained to attune to our patient's perspective and understanding how the illness is casting impacts to one's life. It was not hard to imagine that everyone involved in the operation was being confronted with uncertainties and had been working under immense stress. Although it was a race against time, ample opportunities were dedicated to address the fears and concerns raised by those taking part in the operation, in particular, their fears about getting infected and subsequent implications for self, family, and colleagues. It was empathy that came into the picture and helped me realise the importance of addressing your team members' worries before getting the operation to move on safely and smoothly.

Participating in this operation had not only enriched my experience in dealing with crisis and uncertainties, managing the unknowns, tackling cultural differences, working with people with diverse background under the constraints of time and resources, but it had also provided an invaluable and unique opportunity for me to reflect on things that I have been working on that have brought meaning and purpose to my life and work: Mindfulness, Gratitude, Resilience.

Mindfulness

It was the importance of finding a moment of mindfulness amidst all the hustle and bustle. As said, this 8-day operation had been one of the most 'restless' days of my life, it was hectic and both physically and mentally draining. The practice of mindfulness, be it just a five-minute period, had helped deal with the stress, anxiety and negative emotions inside of me, and sharpened my ability to concentrate on the tasks again.

Gratitude

I was grateful for the opportunity to work with visionary leaders during this operation and with the very supportive colleagues in the head office that had allowed for successful execution to take place at the forefront. Apart from the core team, other supportive members, including bus drivers transporting passengers from pier to airport who had also helped with disinfecting the tour bus after each transfer, airline crews who had volunteered to join the operation, airport cleaning staff who helped to maintain a clean and safe environment at the waiting area... the list is just endless... Learning to cultivate gratitude, over both big and small matters, had been an important lesson for me during this lingering pandemic.

Resilience and emotional intelligence

I have come to realise that resilience is much more than being flexible and adaptive during moments of adversity. The six domains of resilience: vision, composure, reasoning, tenacity, collaboration and health, each strikes a chord in my heart both during and after the operation. While the vision had

Reception of Hong Kong residents at the pier

Demonstration of hand hygiene by Infection Control Nurse to participants of the evacuation operation

remained clear and straightforward for this operation, and collaboration between different stakeholders being seamless, maintaining one's composure and tenaciousness had been the biggest lesson to learn as we were being confronted with obstacles in basically every move of our plan. This was best demonstrated while we were preparing for the second charter flight. It was unanimously identified as one of the most challenging moments during the whole operation when the flight was almost called off due to misclassification of some passengers as close contacts of confirmed patients. Fortunately, a bundle of infection control measures had been put in place proactively to minimize the impact of these anticipated hiccups. This was the moment when a high reasoning ability came into play, which had allowed us to think proactively and act ahead of time to solve arising problems and to handle crisis effectively and efficiently.

Knowing by now that the pandemic is a marathon and not a sprint, it is of particular importance for healthcare workers (as well as leaders) to build our resilience and strengthen our emotional intelligence in order to strive through adversities.

Inspirations for infectious disease specialists, the current, and the next, generation

"The microbe that felled one child in a distant continent yesterday can reach yours today and seed a global pandemic tomorrow. How can we procrastinate any further, or have any reservations, about a common cause – one that responds to every outbreak of disease anywhere as a challenge to all of us." – Dr Joshua Lederberg, Nobel Laureate, The Nobel Prize in Physiology or Medicine in 1958.

Infectious diseases have had a significant impact on the course of human history and COVID-19 has resulted in an unprecedented challenge to the global community, its governance structures, and its mechanisms for international and regional collaboration. The virus respects no border and has so poignantly highlighted the vulnerability of certain populations around the world and how readily it can overwhelm a healthcare system, not to mention the societal aftermath it has brought forth in different sectors. It has also called on the need for more young blood to join the field, not only in the hospitals as clinicians to treat patients with COVID-19, but also to engage in research to identify treatments and vaccines, to involve in devising public health policies and infection control recommendations, and to help disseminate these recommendations to the public.

Like SARS in 2003, which had inspired me to join the field as infectious disease physician, I hope COVID-19 can also serve as a catalyst to arouse more interests among medical students and residents to join the ally.

There are no signs that the pandemic is going to end anytime soon, but it is my humble wish that we all learn from it and act in solidarity to ramp up our preparedness for future epidemics and pandemics.

Welcome Speech for the Symposium on Incentives and Reducing Disincentives in Enhancing Organ Donation and Transplantation

Prof Philip LI
President of Hong Kong College of Physicians

Prof Sophia Chan, Secretary for Food and Health, Distinguished guests from around the world, College Fellows and members, ladies and gentlemen

On behalf of the Hong Kong College of Physicians, I would like to welcome all of you to this Symposium on incentives and reducing disincentives in enhancing organ donation and transplantation. The College is very happy to co-organize this important symposium with the Hospital Authority, Department of Health and Hong Kong Society of Transplantation and as supported by Hong Kong Society of Nephrology.

We have very renowned international and local speakers today from Canada, New Zealand, South Korea and Hong Kong.

According to WHO, non-communicable diseases (NCDs), including heart disease, kidney disease, stroke, cancer, diabetes and chronic lung disease, are collectively responsible for almost 70% of all deaths worldwide.

People of all age groups, regions and countries are affected by NCDs. These conditions are often associated with older age groups, but evidence shows that 15 million of all deaths attributed to NCDs occur between the ages of 30 and 69 years. Children, adults and the elderly are all vulnerable to the risk factors contributing to NCDs.

In end stage organ failure, one of the best treatments is organ

transplantation. Around the world, shortage of organs is common. In Hong Kong, this is particularly evident. According to the latest Hospital Authority data of June 2020, we have over 2,200 end stage kidney failure patients waiting for a kidney transplant and we only had 42 cadaveric kidney transplants and 15 live kidney transplants in the whole year of 2019. Likewise, we have 71 patients waiting for liver transplant in June 2020 and we only had 23 cadaveric and 20 live liver transplants in the whole year of 2019. Data for heart, lung and cornea are no better.

NCD patients obviously constitute a major bulk of patients that the 19 specialties of Our College have to take care of. The College would certainly like to contribute to improve the organ donation and transplantation rates for our end stage organ failure patients. Despite the various promotion programmes by the Government, Hospital Authority and professional societies, the organ donation rates of Hong Kong was not seeing a big increase. The kidney transplantation rate in HK in 2016 was only 11 per million population compared with 64 in Spain. This figure for Canada, South Korea and New Zealand were 49, 43 and 37 respectively. So we have much to learn from our overseas speakers today.

Possible measures including Opt-out policy in organ donation, providing incentives and reducing disincentives for organ donation and increasing supply of organs including donation after circulatory death are all options for discussions. It is obvious that each of this has a number of potential barriers including cultural, legal and ethical ones.

Our College is happy to start this symposium together with Department of Health, Hong Kong Society of Transplantation and Hospital Authority on incentives to raise the discussion in our healthcare profession and in our Society for moving forward.

This is the first fully-virtual format Symposium that our College has organized and we are pleased to see over 600 registrations for the Symposium reflecting the importance and interest of the subject to our Health Care workers and senior leaders in the profession.

I wish you all a fruitful and enjoyable symposium. Amidst the COVID-19, I wish all of you safe and healthy around the world and in Hong Kong and we hope the world can get out of this pandemic very soon.

Top row: Dr KM Chow, Dr YL Cheng, Dr Raymond Ho
Middle row: Prof Curie Ahn, Prof Philip Li, Dr Derrick Au
Lower row: Dr Deacons Yeung, Dr Ian Dittmer

Report on Symposium on Incentives and Reducing Disincentives in Enhancing Organ Donation and Transplantation

Dr KM Chow

President, Hong Kong Society of Transplantation
Programme Director, Basic Physician Board, HKCP

The COVID-19 pandemic has impact on medical healthcare far greater than any event in living memory. On the other hand, this can also be perceived as a challenge for us to make changes and strive for improvement. As such, the Symposium on Incentives and Reducing Disincentives in Enhancing Organ Donation and Transplantation, recently organized by the Hong Kong College of Physicians, represented an opportunity to make new changes. This was co-orgnaised by The Hong Kong Society of Transplantation, Hospital Authority and the Department of Health with support from the Hong Kong Society of Nephrology.

The Symposium took place on 29 August 2020. This was delivered in a virtual conference format, and was honoured by the opening speech of Prof. Sophia Chan Siu-chee, Secretary for Food and Health, and the attendance and active participation by Dr. Tony Ko Pat-sing, Chief Executive of the Hospital Authority. Prof Philip Li welcome the speakers and participants highlighting the imminent need for increase in organ donation and transplantation to help end stage organ failure patients with the current overall burden of non-communicable diseases (NCDs) in Hong Kong and globally.

One of the challenges is to line up key speakers around the globe to give us a cross-cultural perspective on the potentially controversial topic about organ donation. With the time zone in mind, the Hong Kong College of Physicians and Hong Kong Society of Transplantation have come up with a schedule to fit that of local speakers and those from New Zealand, Canada and South Korea. Prof. Ian Dittmer, a Custodian of the Declaration of Istanbul and a member of the Transplantation Society ethics board, delivered his message on how New Zealand made the initiatives to increase living organ donation after judicious use of compensation to make live donation less of a burden to the donors. Prof. John Gill, Professor of Medicine at The University of British Columbia and President Elect of American Society of Transplantation, had detailed discussion on behavioural agency and utility theory, and what the society and government could consider as acceptable motivations for organ donation. We also invited Prof. Curie Ahn from Seoul National University College of Medicine. She is the Asian representative of the Transplantation Society and the immediate Past President of Korean Society of Transplantation. With her expertise and the example from Korea, she listed out principles in organ transplant ethics and shared the Korean Transplant Act which allows condolence payment and funeral fee for deceased donor families.

During the second session of the Symposium, I myself, representing Hong Kong Society of Transplantation, provided a local perspective on the donation rate and challenges. This was followed by Dr. Derrick Au, Director of the Chinese University of Hong Kong Centre for Bioethics, who asked a key question: As appeal to altruism and solidarity becomes unrealistic, is it time to seriously consider improving incentives (and reducing disincentives) for organ donation?

The Symposium is the first step in reviewing the changes we can consider to impact on the donation rate in Hong Kong. On the other hand, engagement of healthcare workers and government should be considered the prerequisite but not the panacea. The College will continue to work on what our profession can contribute to organ donation in Hong Kong.

Last but not least, success of the symposium would not have been possible if not because of the tremendous support from the Hong Kong Academy of Medicine information technology team. We must thank Justin Ng and Eric Chan, in addition to the secretariat support from Gloria Ng. With more than 600 registrations for the symposium, we are most grateful to the technical support to ensure smooth running of the symposium.

Please feel free to revisit the whole recorded symposium as available at the College website at: http://www.hkcp.org

Newly elected FRCP (Edin) January – June 2020

1 **Dr Chan Kit**
The University of Hong Kong Shenzhen Hospital

2 **Dr Chan Ngai Ho Tony**
Department of Medicine & Geriatrics, Princess Margaret Hospital

3 **Dr Lai Kin Bon**
Department of Medicine & Geriatrics, United Christian Hospital

4 **Dr Lam Po Tin**
Department of Medicine & Geriatrics, United Christian Hospital

Newly Elected FRCP (London) since 2019

1 **Dr Chen Wai Tsan**
Haven of Hope Sister Skau Holistic Care Centre

2 **Dr Chan Yiu Han**
Department of Medicine, Queen Elizabeth Hospital

3 **Dr Cheung Chi Yuen Simon**
Department of Medicine, Queen Elizabeth Hospital

4 **Dr Cheung Tsang Tommy**
Hong Kong Sanatorium & Hospital

5 **Dr Choi Sik Ling Simon**
Department of Medicine & Geriatrics, Caritas Medical Centre

6 **Dr Choo Kah Lin**
Department of Medicine, North District Hospital

7 **Dr Chung Yiu Kwan Kenneth**
Department of Rehabilitation, Kowloon Hospital

8 **Dr Fung Ka Shun Samuel**
Department of Medicine & Geriatrics, Princess Margaret Hospital

9 **Dr Lam Ming Yuen**
Quality Healthcare Medical Centre

10 **Dr Lau Chi Pan**
Hong Kong Oncology Centre

11 **Dr Lee Kwok Kuen Harold**
Department of Medicine & Geriatrics, Princess Margaret Hospital

12 **Prof Leung Gabriel Matthew**
Faculty of Medicine, University of Hong Kong

13 **Dr Lui Hiu Tung Colin**
Department of Medicine, Tseung Kwan O Hospital

14 **Dr Lui Mei Sze**
Department of Medicine, Queen Mary Hospital

15 **Dr Ma Hon Ming**
Department of Medicine & Therapeutics, Prince of Wales Hospital

16 **Dr Ma Kam Man**
Department of Medicine, Queen Mary Hospital

17 **Dr Ng Ka Man Carmen**
Department of Medicine & Geriatrics, Princess Margaret Hospital

18 **Dr Singh Gill Harinder**
Department of Medicine, Queen Mary Hospital

19 **Dr Tsui Chung Kan**
Department of Medicine & Geriatrics, Kwong Wah Hospital

20 **Dr Wong Tin Yau**
Centre for Health Protection

21 **Prof Wong Wai Sun Vincent**
Department of Medicine & Therapeutics, Prince of Wales Hospital

22 **Dr Woo Yu Cho**
Department of Medicine, Queen Mary Hospital

23 **Prof Yan Ping Yen Bryan**
Department of Medicine & Therapeutics, Prince of Wales Hospital

Hong Kong College of Physicians

Our College will be organising the Annual Scientific Meeting on 17-18 October 2020 at the Hong Kong Academy of Medicine Jockey Club Building. Below is the updated programme for the Meeting which will be conducted as a hybrid mode with face to face and virtual platform. See you all on 17-18 October 2020.

PROGRAMME

17th October, 2020 Saturday

11:30 a.m.	**Registration**	
12:00 – 12:40	**Best Thesis Award** Chairman : Dr Johnny WM Chan, Dr Jenny Leung Awardees : Dr Fong Ka Man, Queen Elizabeth Hospital Dr Gao Yuan, Queen Mary Hospital Dr Au Chi Kin, Prince of Wales Hospital	
1:00 – 2:00	**Lunch Symposium** *(Sponsored by Sanofi Hong Kong Limited)*	Chairman : Dr Chan Kwok Keung
	"PCSK9 inhibition: Latest Advances in Lipid Management"	Speaker : Prof. Tse Hung-Fat (QMH)
2:00 – 2:05	**Opening Ceremony**	
2:05 – 3:20	**Symposium 1. "Clinical updates on medical diseases"**	Chairman : Dr Maureen Wong, Dr Patrick Li
2:05 – 2:30	1.1 **"Management of sleep apnoea and treatment effect"**	Prof Ip Sau Man Mary (QMH)
2:30 – 2:55	1.2 **"Treatment for heart failure"**	Dr Yiu Kai Hang (QMH)
2:55 – 3:20	1.3 **"COVID-19: Clinical Update"**	Prof Hui Shu Cheong David (PWH)
3:20 – 3:55	**Sir David Todd Lecture**	Chairman : Prof Richard Yu
	Genomics and metagenomics: a treasure-trove for personalized medicine	Speaker : Prof Wong Hei Sunny (PWH)
3:55 – 4:15	**Coffee Break**	
4:15 – 5:05	**Symposium 2. "Genetics in medicine"**	Chairman : Dr Lao Wai Cheung, Dr Law Chun Bon
4:15 – 4:40	2.1 **"Genomic medicine for clinicians"**	Prof Ma Ching Wan Ronald (PWH)
4:40 – 5:05	2.2 **"Next generation sequencing in neurological diseases"**	Dr Pang Yin Yu Shirley (QMH)
5:05 – 5:40	**Gerald Choa Memorial Lecture**	Chairman : Prof Anthony Chan
	"To love and heal''	Speaker : Prof Lau Chak Sing
6:00 – 6:30	**Annual General Meeting**	
6:30 – 8:00	**Fellowship Conferment Ceremony and AJS McFadzean Oration**	Introduction : Prof Philip Li
	"The Timeless Physician: A Gift to Humanity"	Orator : Prof Yeoh Eng Kiong

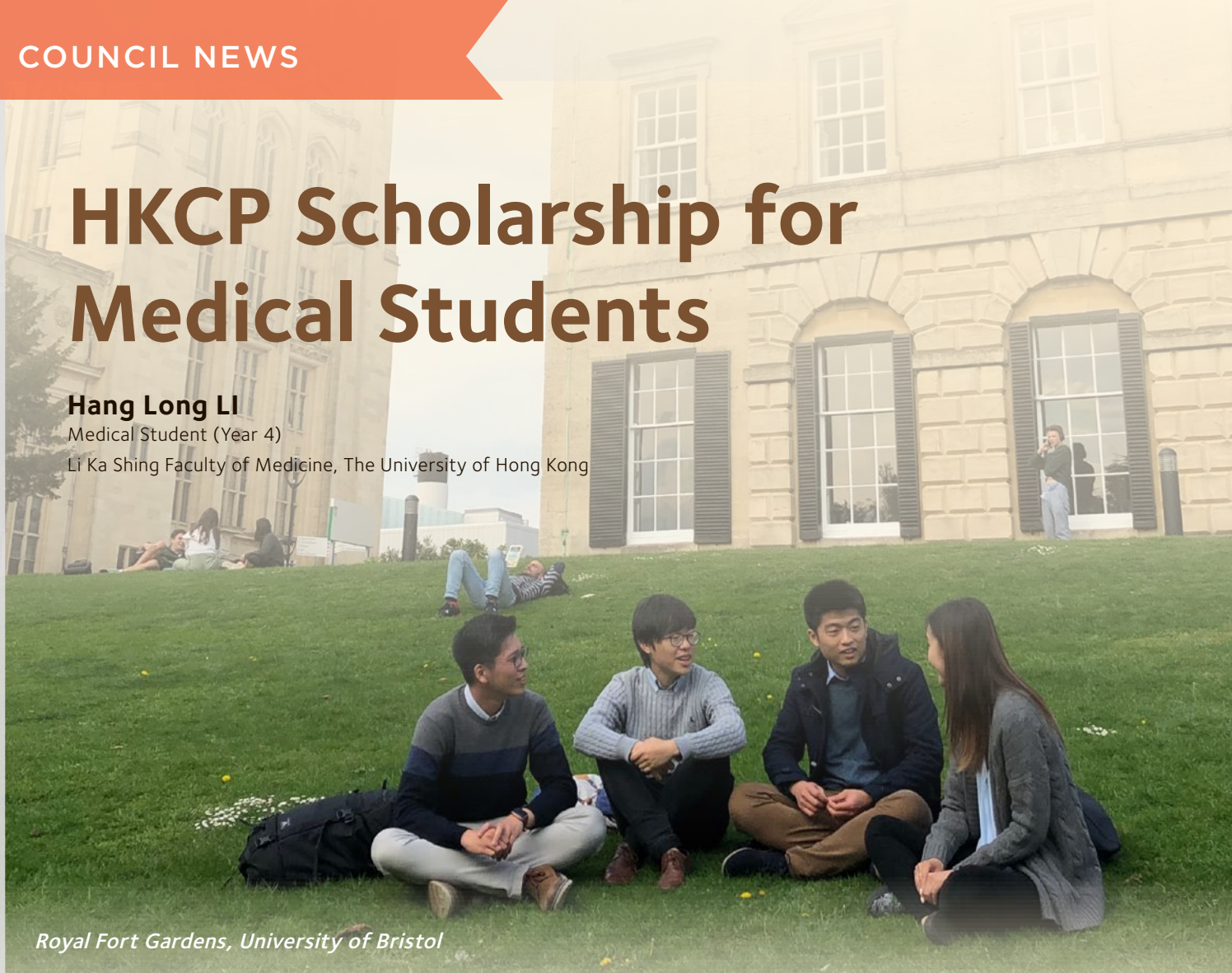
Annual Scientific Meeting 2020

18th October, 2020 Sunday

8:45 a.m.	**Registration**	
9:15 – 9:55	**Distinguished Research Paper Award for Young Investigators 2020**	Chairman : Prof David Hui
	Awardees:	
	Positive Hepatitis B Core Antibody Is Associated With Cirrhosis and Hepatocellular Carcinoma in Nonalcoholic Fatty Liver Disease	Dr Chan Ting Ting (PWH)
	Diabetes Increases Risk of Gastric Cancer After Helicobacter pylori Eradication: A Territory -Wide Study With Propensity Score Analysis	Dr Cheung Ka Shing Michael (QMH)
	Diverse effects of hepatic steatosis on fibrosis progression and functional cure in virologically quiescent chronic hepatitis B	Dr Mak Lung Yi (QMH)
9:55 – 10:00	**Prize presentation** - Young Investigator Research Grant - Highest score in AIM - Highest score of PACES	
10:00 – 10:30	**Richard Yu Lecture**	Chairman : Prof TM Chan
	Gut Microbiota: New Frontier in Understanding Human Health	Speaker : Prof Ng Siew-Chien (PWH)
10:30 – 10:45	**Coffee Break**	
10:45 – 12:00	**Symposium 3. "Novel treatments of medical diseases"**	Chairman : Prof YH Leung, Dr Choi Cheung Hei
10:45 – 11:10	3.1 **"Novel treatment for SLE"**	Dr Mok Chi Chiu (TMH)
11:10 – 11:35	3.2 **"Novel treatments in dermatological diseases"**	Dr Cheung Man Tung Christina (PWH)
11:35 – 12:00	3.3 **"'At the forefront of immunotherapy: CAR-T cells for haematological malignancies"**	Dr Chan Sau Yan Thomas (QMH)
12:00	**Closing Remarks**	

HKCP Scholarship for Medical Students

Hang Long LI
Medical Student (Year 4)
Li Ka Shing Faculty of Medicine, The University of Hong Kong



Royal Fort Gardens, University of Bristol

It is my honour to be awarded the Hong Kong College of Physicians Scholarship for Medical Students, which supported me to undertake a research attachment at the Henry Wellcome Laboratories for Integrative Neuroscience & Endocrinology at the University of Bristol in summer 2019.

The laboratories are run by Prof. Stafford Lightman, Professor of Medicine from University of Bristol. He is a world-renowned endocrinologist with a research focus on the dynamics of stress hormone. His ground-breaking discovery on the shift in hypothalamic signalling from corticotropin-releasing hormone (CRH) to vasopressin during chronic stress has brought us to a better understanding of the dynamics and regulation of stress hormone secretion. To further characterize the circadian and ultradian rhythms of hormones, his research group utilized a technique called microdialysis, which involves inserting a catheter with a semi-permeable membrane into subcutaneous tissue for continuous automated sampling of tissue fluid. Human volunteers are recruited to wear the microdialysis device, allowing us to evaluate the hour-to-hour, or even minute-to-minute variation in hormone levels. With my prior interest in how hormones interact and exert important regulatory effects on homeostasis, I am especially thankful for the opportunity to conduct research at Prof Lightman's laboratories to dig deeper into the sophisticated endocrine system.

In the past decade, there has been a growing trend towards a personalized approach in prescribing thyroid hormone replacement therapy for patients with hypothyroidism. Therefore, it is important to acquire more knowledge on the metabolism of thyroid hormones, particularly at the tissue level, which can be achieved using novel techniques such as the microdialysis technique. During my two-month attachment, I worked at the benchside to evaluate how the sampling and recovery of thyroid hormones using the microdialysis technique could be improved. A major part of my research was to immerse the microdialysis catheters into solutions containing thyroid hormones, followed by adding different substances to the microdialysate to evaluate whether the recovery of tissue fluid and thyroid hormones could be improved.

My supervisor, Dr Thomas Upton, was kind and offered me with ample hands-on opportunities to design new and self-directed experiments. There was a wide variety of practical hurdles I encountered when I carried

out the experiments, such as to firmly secure a mobile microdialysis catheter in a moving water bath. Instead of helping me to solve these problems straight away, Dr Upton gave me hints and guided me to create my own solutions, which helped develop my problem-solving skills. There were several instances when I failed to carry out the experiments properly, but he still trusted me and mentored me to the correct way by showing me in detail how each procedure should be performed. While I am grateful for Dr Upton for his professional guidance, this experience also led me to realize the importance of being attentive to details at the benchside: even a slight mistake could lead to inaccurate and misleading results.

Apart from having my laboratory skills improved, my horizons were broadened through participation in weekly research meetings. By joining intellectual discussions within the team, during which Prof Lightman critically evaluated the experimental designs and interpreted the findings presented by other team members, I again realized that well-designed experiments are the cornerstones to successful laboratory research. Furthermore, the discussions have taught me that disappointing research results do not necessarily equate failure; it may in turn open up another exciting research field which has never been studied. Having an open mind when interpreting experiment results is critical. Moreover, by appreciating other research projects, I also understood that laboratory research is actually inextricably linked to clinical practice. Carrying out benchside experiments is one of the essential steps for us to understand how our body works and to evaluate how treatments for various diseases can be improved. In addition to developing critical and analytical thinking skills, interacting with people from different background also improved my communication skills, a key quality for clinician-scientists and physicians.

Aside from working at the benchside, I also had the opportunity to follow Dr Upton and his research nurses to attend clinical sessions where microdialysis catheters were inserted into volunteers' abdominal subcutaneous fat. Initially, it sounded to me like a simple procedure to perform, but after witnessing how it was done, I realized that the procedure required a high level of dexterity and meticulosity. Not only should the abdomen and the apparatus be properly disinfected before insertion, the tubes and catheters must also be appropriately connected to the sophisticated microdialysis device. Any deviation from the standard protocol would result in suboptimal recovery of hormones, wasting resources, and more importantly, our volunteers' kind contribution. Furthermore, since volunteers had to carry the long tubes and a relatively heavy device for more than 24 hours, specially designed clothing and tapes were used to reorganize the parts. Although researchers' main interests are on the research findings, we should also try our best to minimize discomfort and the disturbances to the participants' daily lives caused by the experiment. We must be grateful to volunteers who agree to participate in clinical studies, who trust researchers and are willing to sacrifice their time, and possibly health, to help us and contribute to the advancement of medical research.

To conclude, the research attachment at the University of Bristol was a rewarding experience for my professional development. This invaluable experience has allowed me to improve my laboratory and communication skills which are essential qualities as a clinician-scientist. The opportunity to immerse myself into the world of medical research also allowed me to develop critical and analytical thinking skills and to gain insights into how research breakthroughs are made step-by-step. This amazing journey has equipped me with core skills to face upcoming challenges and cultivated my interest in medical research, which inspired me to contribute to society by utilizing my medical knowledge and research skills. Again, I would like to express my sincerest gratitude to the Hong Kong College of Physicians for supporting my research attachment at the University of Bristol. Lastly, I would also like to thank Prof Lightman and Dr Upton for offering me such a precious opportunity and providing professional guidance.

A photo taken with Prof Lightman

Passing Rates: Joint HKCPIE / MRCP (UK) Part I Examination 2002 – 2018

	Sitting	Pass
September 2002	100	33 (33%)
January 2003	124	55 (44%)
May 2003 (SARS Special)	21	7 (33%)
September 2003	54	29 (54%)
January 2004	93	39 (42%)
September 2004	29	16 (55%)
January 2005	96	68 (70.8%)
September 2005	24	15 (62.5%)
January 2006	95	74 (80%)
September 2006	21	13 (62%)
January 2007	87	67 (77%)
September 2007	23	12 (52%)
January 2008	56	38 (68%)
September 2008	47	32 (68%)
January 2009	59	47 (80%)
September 2009	47	28 (60%)
January 2010	45	28 (62%)
September 2010	62	39 (63%)
January 2011	44	23 (52%)

	Sitting	Pass
September 2011	64	49 (77%)
January 2012	45	28 (62%)
September 2012	80	59 (74%)
January 2013	41	22 (54%)
September 2013	76	60 (79%)
January 2014	30	20 (67%)
September 2014	84	64 (76%)
January 2015	29	20 (69%)
September 2015	100	71 (71%)
January 2016	33	18 (55%)
September 2016	84	63 (75%)
January 2017	36	19 (53%)
September 2017	69	56 (81%)
January 2018	25	12 (48%)
September 2018	108	74 (69%)
January 2019	43	19 (44%)
September 2019	96	64 (67%)
January 2019	41	20 (49%)

HKCP Career Talk 2020

Dr Heyson Chi Hey CHAN
Chairman
Young Fellows' Committee

The HKCP Career Talk for Medical Students is an annual event of the Young Fellows' Committee aiming to attract medical graduates to embark on a career in internal medicine.

Amid COVID-19, the format of the Career Talk has been changed to take place on an online platform to comply with infection control measures. In spite of this, the Career Talk was still well attended by more than 80 graduates from both medical schools.

As in previous years, Prof Philip Li gave a welcoming speech to all attendees. Several seminars followed, including one on "Introduction to Internal Medicine" which outlined the journey as a physician trainee, another one on "Tips of CV Writing and Interview Skills" which aimed to equip attendees with the essential skills in job hunting, and a third one on "Houseman Survival Guide", which focused on practical aspects of surviving the internship year illustrated with many commonly encountered scenarios.

The Career Talk was concluded by highly acclaimed interactive sharing sessions in which participants were joined by representatives from various subspecialties. Although without a physical meeting, the participation was no less overwhelming and lasted for more than an hour.

The Young Fellows' Committee would like to express our sincere appreciation to the Council of the Hong Kong College of Physicians and the secretariat for their unfailing support. We would also like to thank the Academy IT team for technical support. Last but not least, I would also like to thank all the representatives from various subspecialties for their selfless sharing and all our Committee members who have worked hard to iron out the logistics of the new format of the Career Talk.

My Reflection from Bird Watching

Dr Tze Hoi KWAN
Department of Medicine & Geriatrics
Tuen Mun Hospital

A gentleman appreciating the Black-Faced Spoonbill through my telescope during Mai Po visit organized by Hong Kong Society of Nephrology as a patient rehabilitation activity in 2002

Thanks Prof Philip Li for inviting me to write an article in the Synapse concerning bird watching. It is indeed a precious tradition for Synapse to invite fellows to share their experience in life beyond the practice of medicine.

I was often asked how I started bird watching. Back to the nineties, I was struggling as a father who was exhausted of helping my children to cope with the stress from schooling. It was out of sheer coincidence that I discovered my then 6-year-old son's special talent in recognizing birds and wildlife in Kowloon Park on Sunday morning when we were waiting for his sister to finish the swimming lesson there. From then on, we started discovering wild birds in Kowloon Park using a local guidebook on bird watching. That was an exciting journey of discovery indeed. Prior to that, my son was badly discouraged by his difficulties in mastering words and numbers at school. It is encouraging to notice his gradual regain in self-confidence through watching birds, an arena that he could excel at basing on his natural inclination and enthusiasm towards Nature.

There are many favorite sites for watching wild birds in Hong Kong, such as Tai Po Kau, Kam Tin, Mai Po and Long Valley. Nevertheless, it was Long Valley that transformed my son at the age of 10 in a miraculous way. Back in 2000, the government intended to build a railway spur line right across Long Valley connecting Sheung Shui to Lok Ma Chau. That proposal received lots of objections from environmental groups because the unique biodiversity of Long Valley would be disrupted irreversibly. My son, by then the youngest bird watcher within the birding community, was invited by the Chairman of the Hong Kong Bird Watching Society Dr. Lam Chiu Ying to participate in a TV program, sharing his weekly journal at school, appealing to the government to preserve the Long Valley for the sake of wild life protection. The appeal was supported by the Environmental Protection Department and the government finally opted for a much less environmentally disruptive option with the spur line going through Long Valley via an underground tunnel. Surprisingly, the participation of our family in the RTHK TV program made my son an environmental icon while earning substantial support from his classmates. Bearing in mind that he was often the object of bullying in view of his suboptimal academic performance beforehand. I am very grateful for the timely regain in confidence and consolidation of a positive self-image of my son through participation in bird watching.

Through networking with experienced birders, we even joined the Big Bird Race, a very interesting annual event organized by the World Wide Fund of Nature Hong Kong. This race essentially required the whole team members, usually about 5, to go around different habitats in

Hong Kong within 24 hours to record as many bird species as possible. The team that scored the highest number of bird species would win. In order to get a good performance in the race, one needs to be familiar with the habitats, behavior and calls of the birds with good observant eyes plus a little bit of luck as well. On top of that, prizes would also be given to the team that discovered the rarest or the most precious bird as decided by the adjudicators, we call it "Bird of the day" prize. Although our team did not score a lot in our first race, we encountered an unusual bird, a Forest Wagtail, that other teams could not find. That enabled our team to win the "Bird of the Day" prize in our first formal participation in the Big Bird Race. I could see my son's eyes glowing with the joy of affirmation when he, as the youngest bird watcher in the Race by then, represented our team to receive the Trophy for "Bird of the Day" prize from the late Mr. Gavin Cooper, the former Chairman of the Hong Kong Bird Watching Society back in 2001.

Following the Long Valley victory, that was indeed another precious affirmation from Heaven to boost up the self-confidence of a young boy who has been experiencing defeat and failure since his early childhood.

As a physician who was brought up from the grass root, I have a deep conviction that working hard and achieving good academic results is the only key to success. Having a high expectation of my children was almost an ingrained part of my mindset as a father who is himself a physician. When my son failed to reach my expectation despite having invested huge amount of time and effort to coach him, I ran into depression. How grateful I was when we discovered that bird watching has been invigorating my son's motivation to learn while forming a fair image of himself. I developed profound repentance when my wife subsequently told me about my daughter's consolatory remark to her on one day: "Mom, don't be so sad, smart guy like dad probably has difficulties understanding us!" How immature I was on that gloomy day when I was exasperated into fury while noticing that my coaching to my son was in vain, leaving my son and my wife weeping at home simultaneously! Thanks God for the revelation and inspiration subsequently that enabled me to see my weakness and prejudice in life. From then on, I decided to quit serving as the homework tutor for my son but resuming my noble status as his father, discovering the marvel of Nature with him through bird watching. I must thank my mentor Dr. Philemon Choi who was in the same church as my family. He often said: Impression without expression causes depression. Having witnessed the transformation and growth of my family, Dr. Choi strongly urged me to write up my experiences in parenting for the benefit of other families. As a result, my books titled: "子鳥深情 Profound Inspiration from Birds and my Children" and "陪孩子跑一場障礙賽Running with my children" were published through Breakthrough in 2003 and 2012 respectively.

A Brown Wood Owl
(Photo credit: Mr Kwan Long Hei Matthew)

Bird watching is even more precious if one could share the discovery with your family members. We often celebrated this by "give me five"! Each wild life encounter with your family is a unique and precious gift of memory shared amongst yourselves, a gift that couldn't be lost or stolen, but would be kept in your loving memory for the rest of your lives.

Apart from birding locally, we sometime also went birding outside Hong Kong. To me one of the most unforgettable birding experiences was watching the Giant Ibis, the national bird of Cambodia. In the recent years, Dr. Wong Kin Sing Paul has kindly invited me to participate in the teaching project for the University of Health Science in Phnom Penh, conducting lectures and workshops on renal medicine for the final year medical students. In year 2017, after finishing my teaching duties, I traveled to northern Cambodia with my family. The Giant Ibis was one of our target birds since it is a critically endangered species with an estimated number of just 200 in the wild because of diminishing habitat related to deforestation. The local guide took us to a spot waiting for it to return for roosting at dusk yet we failed to see it. We thought we were going to dip on this target species but alas, on the next day two of them suddenly flew out to the open sky above us glowing in the golden tinge of the setting sun, making their characteristic melancholic call like a crying baby! It was a surreal yet emotional experience to us, reminding us the tragic history of the Cambodian people when they experienced genocide under the tyranny of Pol Pot. I thank God for granting me this precious opportunity to appreciate this exceptional beauty in Nature with my family. With a thankful heart, I prayed for God's blessings to Cambodia, her people and the wild lives living in it. Birding can sometime be a very emotional experience.

While birding can be a superb hobby to relax your tense soul, it could sometime become an addictive activity, giving one relentless urge to find a rare bird. We even have a name for the guy who is so crazy about finding birds: a twitcher. There is no better way to illustrate twitching by a movie filmed in 2011 starred by Owen Wilson, Steve Martin and Jack Black. The movie is called: The Big Year and is talking about an even more crazy competition between individuals to go around the country within A YEAR, not a day! to spot as many bird species as possible. The most marvelous message from this touching movie emerged when one of the contestants was finding an extremely rare owl within the forest in a cold night with his dad. He searched and searched frantically but in vain, thinking that he would lose the game. Suddenly he noticed that his dad got lost and he decided to stop finding the bird but concentrate on finding his dad in the forest instead. To his surprise, he finally found his dad standing in the snow under a tree while the owl he dreamt of was perching perfectly above!

This movie is talking about what are the better things to cherish in life. The affection towards your loved ones is always more important than the excitement to win a competition or the pride to show your exceptional abilities. To a decent birder, there is a universal etiquette to respect the welfare of birds more than the personal motives to twitch. To me when I heard about the news that huge number of birders are visiting a remote forest site in Lam Tsuen where a family of Brown Wood Owl was nesting within a tree hole with chicks in it, I decided to defer my visit though I was also keen to see this big owl in the forest. As I did not want to disturb the family too much when there are young chicks inside the nest, because excessive human interference at this stage may cause the adult to abandon the chicks, a tragedy we want to avoid. Fortunately, the chicks grew well and I was told that they are ready to leave the nest soon. So I finally went and "tick" this species as my lifer (bird that you see it for the first time in your life)

The joy of birding not only involves seeing new species, but also more profound appreciation of your familiar birds. Sometime birds would bring about authentic inspiration that might even enrich your soul. The late Dr. John Stott (1921-2011), while being a well-known pastor in All Souls Church London, was also a very keen birder himself. He wrote a wonderful book: The Birds Our Teachers. This book illustrated many spiritual aspects that we may learn from birds. For instances, the way that some owl such as the Long-eared Owl can rotate her neck up to 270 degrees taught us the importance of looking back to the past with gratitude and on to the future with expectation. And the way that a robin defending her territory fiercely taught us the importance to maintain an appropriate boundary in a community so that we would be helpful to others yet understanding the importance of maintaining our privacy and personal lives so that we would not experience burnout.

In fact, there was an article in New England Journal of Medicine in March 2019; 380:997-999 by Joshua Schor MD titled: When Sparks Fly – Or How Birding Beat My Burnout. It was quoted in the heading that: "A physician takes up birding and finds that identifying a rare bird presents challenges not unlike those of deriving a diagnosis from a puzzling set of medical findings. Its rewards prove an effective treatment for what may have been a subclinical form of burnout." Birds identification in the field can sometime be very challenging requiring adequate background knowledge, accurate observation and candid analysis, when you finally solve the puzzle and decipher the

nature of the target bird you are watching, it's really gratifying. As physicians, one must restrain oneself for deriving too much pleasure on successful diagnosis of a rare condition in patients because you simply do not want your pleasure be built on the tragedy of your patients. This would lead to some form of psychological stress subconsciously. Instead, birding may serve as some form of nature therapy, enabling the physician to enjoy identifying rare species without bad feelings at all.

Another important aspect of birding is to share our marvel for Nature with others. I often lead birding groups in my church to the countryside. It is my conviction that children who love Nature would tend to grow up into a caring and benevolent individual. In year 2002, the Hong Kong Society of Nephrology collaborated with the World Wide Fund for Nature Hong Kong to organize a bird watching day for hundreds of renal patients and their families. It was unforgettable when I witnessed the joy of a renal patient, an elderly gentleman on CAPD in his seventies, rejoicing over his sightings of a Black-Faced Spoonbill through my telescope! Nature does have healing power on a heart battered by chronic illnesses.

During the Easter holiday in 2019, my son captured a video recording of huge flocks of water birds staying together in the Mai Po mudflat under an extremely adverse weather condition. The birds did not seek for shelter but simply stood strong against the rain storm while staying close to each other. A close up showed a sandpiper standing still in torrential downpour with dignity, yet remained vigilant and watchful while keeping its eyes open despite heavy rain, in case a peregrine falcon is near. After the rain has stopped, the birds used their beaks to preen the soaked feathers of their comrades nearby. The whole scene of water birds on mud flat during a rain storm is reminiscence of the resilience of our medical profession facing the immense challenges during the past two years in Hong Kong. You can watch this touching video by searching "Deep Bay in the Rain" via YouTube.

I am also grateful that both of my children eventually picked up a career chosen by themselves. My son pursued a career in Nature education. Having obtained his degree in visual arts and enrolled as a program officer for visual arts project for several years, he finally set up a NGO : PROJECT CROW with his wife, who is also a keen naturalist with special interest in insects. They would conduct workshops and field trips for individuals, families, schools and various organizations. He also works as designer and curator for exhibitions related to Nature while being a professional wild life photographer himself. My daughter, having experienced herself the impact about what kids with special educational needs can bring to families, decided to pursue a career as a teacher trained in special education.

Indeed, bird watching to me is not just a hobby, it is a way of life, a window to seek communion with mother Nature and the joy to share the marvel of Nature appreciation with others. To my family, it was the means for spiritual transformation and personal growth. Thanks God for his wonderful blessings on my family, may you also experience the joy of Nature, not necessary only through bird watching, but in various ways that suit you most.

A pair of Giant Ibis in Northern Cambodia
(Photo credit: Mr Kwan Long Hei Matthew)

Professor Andrew Francis GODDARD

MA, MD, PRCP, FACP (Hon)

John MACKAY

In October 2019 Professor Goddard came to Hong Kong to give the AJS McFadzean Oration at the annual meeting of the Hong Kong College of Physicians. He impressed us all with the energy and enthusiasm of his address to the young audience of newly elected Members and Fellows.

Andrew's parents were both doctors, his mother was an associate specialist in clinical pathology, and father a consultant in clinical chemistry. His decision to take up medicine as a career was partly influenced by seeing his parents enjoying their careers, despite having to work hard; and further influenced by his liking for biology at school and communicating with people.

He went to school at the coeducational City of London Freemen's School, founded in 1854. His main extracurricular interest was with the Boy Scouts rather than with sports. Academically he did well, gaining a scholarship to St. John's College at Cambridge University.

He justified his scholar's status by passing his BA in Medical Sciences with a First Class degree in 1988, and completing his clinical years two years later with MB, BChir. with Distinction. He also found time to plunge into College sports - cricket, rowing, and then for many years hockey.

During the next twelve years he built a clinical career culminating in his appointment as consultant in Gastroenterology at the Royal Derby Hospital in 2002, a position he still holds. These years were marked by academic degrees, MRCP(UK) in 1993, MA and MD(Cantab.) in 1997, and the award of FRCP(London) in 2005.

When asked about the people who had influenced his career, he told me; "As a clinical student and houseman I was inspired by Dr David Rubenstein who first got me into internal medicine. I was honoured that he was able to come to my presidential inauguration and hadn't changed a bit. As a trainee several people stood out: Dr Gervase Kerrigan, a gastroenterologist and physician in Bury St Edmunds who taught me to love gastroenterology; Dr Richard Long, a gastroenterologist and senior examiner for the RCP who first lit the RCP fire within me; Professor Robin Spiller who supervised my MD and was a great boss; and finally Dame Jane Dacre whom I was lucky to work with when she was president of the RCP".

Prof Goddard has published 61 peer-reviewed papers, 4 book chapters and 20 college reports. He has served or been Chair of a dozen national committees and is still on many other committees.

His main professional interest outside Gastroenterology is his involvement with the Royal College of Physicians. He was Chairman of the New Consultants Committee from 2005-2007, Director, Medical Workforce Unit, (2008-13); Registrar, (2014-18); Trustee from 2014.

In 2018 Professor Goddard was elected by an overwhelming majority of votes to be the 121st President, Royal College of Physicians. The youngest person, at 50, to be elected in 400 years.

From the views expressed in his McFadzean Oration we learned of his concerns regarding the expense of modern medicine and the inequality of delivery, the need to graduate more doctors and to support doctors who are under stress: and this was spoken just before the eruption of the Covid -19 epidemic. His travels to East, Central and Southern Africa impressed on him the difficulties of providing sophisticated medical care in countries with wide disparities between developed and undeveloped areas.

He regrets that he has to spend so much time during the week away from his home, in an attractive village on the River Trent, not far from Derby. He lives there with his wife Nicky, who trained and worked as a radiotherapy radiographer, and to whom he refers as "his rock" whose support is enabling him to have such a successful career.

They have two children, both at university in non-medical courses. He has a brother, also a gastroenterologist at the Royal Derby Hospital.

When he is at home he enjoys playing golf, handicap 15, and is serious about road cycling. The area in which he lives is rather flat so he has challenged himself this autumn to cycle on Alpe d'Huez, a mountain often part of the Tour De France bicycle race.

Professor Goddard's advice to doctors in Hong Kong.

"Work hard and be kind' would be my advice to any doctor anywhere. Hong Kong is going through some tough times at the moment and doctors have the ability to be influential leaders, so if people have the opportunity to make a difference they should take it. During COVID the importance of standing together as a profession has been shown to be as important as ever. Even when the world outside of medicine looks difficult, remember the difference we can all make to individual patients just by the simple things we say and do. Medicine is a brilliant job."

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