

For Immediate Release

A HKSH-HKU Joint Study Finds Nearly 98% of the First Batch of People with History of Allergies Screened by Vaccine Allergy Safety (VAS) Clinics were Eventually Recommended for Vaccination
Proper Guidelines are Needed to Avoid Unnecessary Referrals and Delays in Vaccination

(16 February 2022, Hong Kong) A recent study by Hong Kong Sanatorium & Hospital (HKSH) and LKS Faculty of Medicine, The University of Hong Kong (HKUMed) reveals that 98% of the allergic patients previously deemed to be at risk of COVID-19 vaccine-associated allergy were recommended for vaccination after allergist evaluation at Vaccine Allergy Safety (VAS) clinics between February and June 2021.

The research team found that COVID-19 vaccination has been proven to be safe for patients who were previously deemed at higher risk of vaccine-associated allergic reactions. Unnecessary referrals for VAS screening would cause long waiting time for assessment and delays in vaccination. They also advised the concerned authorities the pressing need to reform the workflow of suspected COVID-19 vaccine-associated allergies including updating the current Hong Kong Institute of Allergy (HKIA) and Department of Health (DoH) guidance to remove non-COVID19 vaccine (or related excipient) associated anaphylaxis as a precaution for COVID-19 vaccination. In light of this finding, the HKIA subsequently updated its guidance¹.

The specialists also implored that full excipient lists for all registered drugs should be mandated in Hong Kong at the soonest possible. In the interim term, a comprehensive list of potentially cross-reactive formulations of drugs containing common excipients to COVID-19 vaccines should be made readily accessible for cross-referencing by healthcare professionals. Finally, they call for interdisciplinary collaboration in allergy services between primary care and specialists so as to allow scarce specialist resources to focus on patients at genuine higher risk of COVID-19 vaccine allergy.

Led jointly by Dr Philip LI, Specialist in Immunology & Allergy and Clinical Assistant Professor, Department of Medicine, HKUMed, and Dr LEE Tak-hong, Specialist in Immunology & Allergy, Director of the Allergy Centre at HKSH and Honorary Clinical Professor at Department of Medicine, HKUMed, the research team attempted to evaluate the clinical outcomes of the patients with suspected COVID-19 vaccine or excipient-associated allergic reactions and analyse the barriers to vaccination.

The study investigated the first 1,127 patients attending VAS clinics of both the public and private healthcare services between February and June of 2021. Given the Hospital Authority Hong Kong West Cluster (HKWC) and HKSH are the only public and private hospitals, respectively, with Specialists in Immunology & Allergy in Hong Kong; and likely represent

¹ Updated Consensus Statements on COVID-19 Vaccine Allergy Safety in Hong Kong by Chiang et al. Asia Pac Allergy. 2022 Jan;12(1):e8. <https://apallergy.org/DOIx.php?id=10.5415/apallergy.2022.12.e8>

most patients undergoing COVID-19 VAS assessment during the study period. The team reviewed all the available medical records of the VAS screened patients from HKWC cohort and HKSH cohort.

The findings showed that close to 98% (1,102) patients could proceed with COVID-19 vaccination after allergist evaluation. Of the patients recommended for vaccination and were able to be contacted after allergist evaluation, more than 80% confirmed that they had been vaccinated but no significant allergic reactions occurred after vaccination. The remaining patients had not yet booked their vaccinations in the study period despite recommendation.

Of the 25 patients (about 2%) who were recommended to defer COVID-19 vaccination, 21 were suggested not to vaccinate because it was not possible to confidently exclude possible excipient allergies based on prior history of multiple suspicious drug reactions. Two of them had positive skin tests to polyethylene glycol (PEG) and one had a positive basophil activation test (BAT) to PEG. One post-vaccine case was diagnosed with Fosun Pharma BioNTech Comirnaty (BT) anaphylaxis and recommended to complete COVID-19 vaccination with Sinovac CoronaVac (SV) as an alternative.

The study also revealed that males were significantly more likely to be recommended for COVID-19 vaccination, while a female predominance for suspected drug allergies has been well reported.

“There was no association between having a prior history of suspected anaphylaxis or a history of multiple drug allergies, co-existing asthma, eczema, food allergies, rhinitis, or urticaria with recommendation for COVID-19 vaccination. With strongly supportive data, we recommended that history of non-COVID19 vaccine (or related excipient) associated anaphylaxis, a history of multiple drug allergies and other co-existing allergic diseases should be removed as a precaution or contraindication to COVID-19 vaccination. This aligns with the recent updates in other international guidelines such as UK and Singapore,” remarked **Dr Philip LI, Specialist in Immunology & Allergy and Clinical Assistant Professor, Department of Medicine, HKUMed.**

“Moreover, registered drugs in Hong Kong are still not mandated to include excipient lists in product inserts. In the absence of this information, excipient allergies remain almost impossible to diagnose,” added Dr LI.

Dr LEE Tak-hong, Specialist in Immunology & Allergy, Director of the Allergy Centre at HKSH and Honorary Clinical Professor at Department of Medicine, HKUMed said, “The HKWC cohort analysis revealed that most patients referred for suspected history of ‘anaphylaxis’ did not meet the criteria of anaphylaxis and more than half of all patients referred to the HKWC VAS Clinic could have been directly vaccinated without prior allergist evaluation. To enhance the efficiency of evaluation and to avoid unnecessary delays in vaccination, we call on primary care and family physicians to conduct an initial triage based on objective clinical criteria provided by DoH and HKIA. We also urge for closer collaboration in allergy services between primary care and specialists.”

The study is published in *World Allergy Organization Journal* (Chiang et al., 2022) 15:100622, <http://doi.org/10.1016/j.waojou.2021.100622>.

About the research team

This study was jointly led by Dr Philip LI, Specialist in Immunology & Allergy and Clinical Assistant Professor, Department of Medicine, HKUMed and Dr LEE Tak-hong, Specialist in Immunology & Allergy, Director of the Allergy Centre at Hong Kong Sanatorium & Hospital and Honorary Clinical Professor at the Department of Medicine, HKUMed. Dr Valerie CHIANG of Division of Immunology, Department of Pathology, Queen Mary Hospital was the first author. Other collaborators include Dr Elaine AU Yuen-ling, Consultant, Division of Clinical Immunology, Department of Pathology at Queen Mary Hospital; Ms Sabrina MOK and Ms June CHAN of Hong Kong Sanatorium & Hospital Allergy Centre; Ms LEUNG Wai-yan, Dr Carmen HO Tsz-kwan, Consultant and Chief of Division (Tung Wah Hospital/Queen Mary Hospital/Grantham Hospital); and Professor LAU Chak-sing, Daniel C K Yu Professorship in Rheumatology and Clinical Immunology, Chair of Rheumatology and Clinical Immunology, Head of the Department of Medicine, HKUMed and Chief of Service (Medicine), Queen Mary Hospital.

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About HKSH Medical Group

Officially launched in September 2017, HKSH Medical Group promotes public health and advanced medicine through a multi-faceted, coordinated approach in clinical services, medical education, scientific research and public health education. Members of the Group, including Hong Kong Sanatorium & Hospital, HKSH Healthcare and HKSH Eastern Medical Centre, are dedicated to offering top-quality holistic care to patients, upholding the motto “Quality in Service, Excellence in Care”.

About Hong Kong Sanatorium & Hospital

Hong Kong Sanatorium & Hospital is one of the leading private hospitals in Hong Kong. With the motto “Quality in Service Excellence in Care”, the Hospital is committed to serving the public as well as promoting medical education and research.

About HKSH Allergy Centre

The Allergy Centre at Hong Kong Sanatorium Hospital was established in March 2012. It was the first time such a Centre had been created in a private and public hospital in Hong Kong. The Centre provides a patient orientated, comprehensive, holistic and multi-professional clinical service of excellence. It educates the profession and allied health professionals about allergies. It engages the public and undertakes clinical research.



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About LKS Faculty of Medicine, The University of Hong Kong (HKUMed)

The LKS Faculty of Medicine of The University of Hong Kong (HKUMed) is the oldest local institution of higher education in Hong Kong. It was founded as the Hong Kong College of Medicine for Chinese in 1887, was renamed the Hong Kong College of Medicine in 1907 and became the premier founding Faculty when the University was established in 1911. From its modest beginnings, the Faculty has grown to become the largest faculty of the University.

Teaching is conducted by more than 390 full-time, highly qualified teaching staff, alongside about 3,000 honorary teachers, most of whom are doctors in public hospitals or private practitioners. The excellence of the education we provide can be seen in our graduates, who have gone on to be leaders in their fields, in Hong Kong and the world.

HKUMed is comprised of one department and five schools - namely, School of Biomedical Sciences, School of Chinese Medicine, School of Clinical Medicine, School of Nursing, School of Public Health - and a number of strategic centres of research excellence. For more information about LKS Faculty of Medicine, please visit: www.med.hku.hk.