

# 香港感染及傳染病醫學會

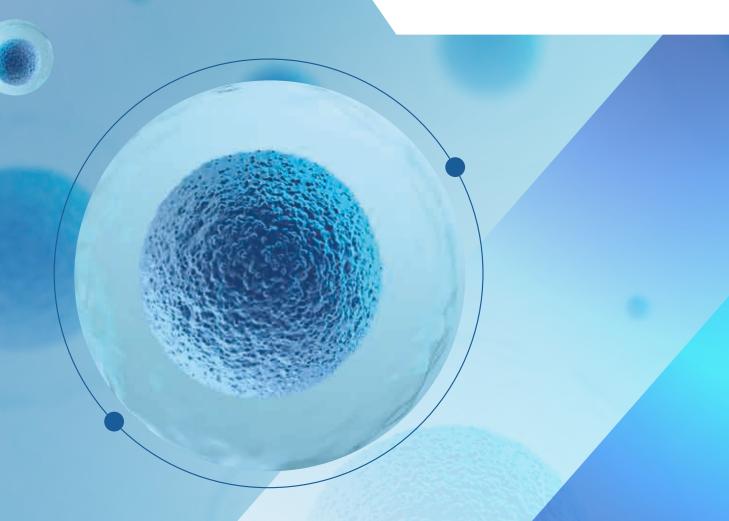
The Hong Kong Society for Infectious Diseases www.hksid.org

# Infections in Oncology Patients

# 25<sup>th</sup> Annual Scientific Meeting 16 July 2022 (Saturday)

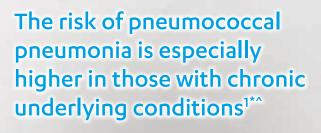
# Co-organizer:





Don't Leave Vulnerable Adults
Open To Other Vaccine-preventable
Respiratory Disease





Chronic lung disease<sup>1</sup>

Chronic heart disease<sup>1</sup>

Rheumatoid Arthritis<sup>1#</sup> **4-4.4x** 

Diabetes<sup>1</sup> **2.8-3.1x** 

Several International Health Institutions Have Issued Specific Recommendations for Pneumococcal Vaccine Under the COVID-19 Pandemic<sup>2-5</sup>







World Health Organization

\* 18 years old or above; ^Relative to their healthy counterparts; # Including Crohn's and Lupus; COVID-19 – Coronavirus Disease 2019

References: 1. Shea KM, Edelsburg J, Weycker D, et al. Rates of Pneumococcal Disease in Adults with Chronic Medical Conditions. Open forum infect Dis. 2014 May1(1): 1-9. 2. World Health Organization. Coronavirus diseases (COVID-19) advice for the public: Myth Busters, Available at https://www.Who.in/temergencias/diseases/novel-coronavirus-2019/advice-for-public/myth-busters, Accessed 15. July 2012. 1. S. Perndan Mullen, ACC CLURICAL BULLETIN COVID-19 Clinical Guidance For the CV Care Team, American College of Cardiology, review and updated on March 6, 2020, Accessed 15. July 2012. 1. A. Immunization Action Coalition.

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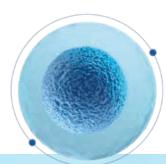
5. A 6.8 p. F. W. 14. 18C. 19A. 19C and 28F in adults and children aged more than 6 weeks of ago. The immunisation schedules for Prevent 13 and 3 m. 1, upon international profit of the first does usually open a series ago with a minimal or morth. The primary inflant series consists of three does, with the first does usually given as early as as weeked of ago. A fourth (boosted) does in control to primary inflant series consists of three does, each of 1.5 m., with the first does usually given as early as as weeked of ago. A fourth (boosted) does in control to primary inflant series consists of three does, each of 1.5 m., with the first does usually given as early as as weeked of ago. A fourth (boosted) does in control to primary inflant series consists of three does, each of 1.5 m., with the first does usually given as early as as weeked of ago. A fourth (boosted) does in encommended between 11 and 1.5 m. or the first of previous control three does, each of 1.5 m., with the first does, usually given as early as as weeked of ago. A fourth (boosted) does in encommended between 11 and 1.5 m. or the first does usually given as early as as weeked of ago. A fourth (boosted) does in encommended between 11 and 1.5 m. or the first does usually given as early as as weeked of ago. A fourth (boosted) does in encommended between 11 and 1.5 m. or the first does usually given as early as a series as a fourth (boosted) does in encommended between 11 and 1.5 m. or the first does usually given as a fourth (boosted) does in the first does usually given as a fourth (boosted) does in the first does usually given as a fourth (boosted) does in the first does usually given as a fourth (boosted) does in the first does usually given as a fourth (boosted) does in the first does usually given as a fourth (boosted) does in the first does usually given as a fourth (boosted) does in the first does usually given as a fourth (boosted) does in the first does usually given as a fourth (boosted) does in the first does usually given as a fourth (bo

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Acknowledgements



# **WELCOME MESSAGE**

Dear distinguished guests, members and colleagues,

On behalf of The Hong Kong Society for Infectious Diseases, I welcome you all to our twenty-fifth Annual Scientific Meeting (ASM).

For the past two decades, our annual meetings have been the prime event for the healthcare professionals in Hong Kong to keep abreast of the latest update and cutting edge-advancement in scientific and clinical practice as well as the public health impact in infectious diseases. We staged last year's meeting to an on-line virtual platform to cope with the COVID-19 "new normal". This year, we are happy to continue to provide our virtual meeting as a platform to exchange ideas and experience with experts in the management of infection.



The main theme of ASM this year is on infections in oncology patients. We are honoured to have Dr. Wong Sin Yew from Singapore to share with us latest updates on COVID-19 prevention in oncology patients beyond vaccinations. As for the local experiences, we are privileged to have Dr. Eugenie Hui to give us an overview on treatment for HIV-related malignancies, Dr. Jonpaul Zee to share his experience in the diagnostics of infections in oncology patients, and Dr. Wilson Lam to bring us discussions on prevention of infections in oncology patients by vaccinations. Apart from lectures, this year we are resuming the clinical case presentation with on-line polling so that we can interact with you on the cases.

I would like to take this precious opportunity to express my heartfelt appreciation to our co-organizer Hong Kong Society of Medical Oncology, our invited oversea as well as local speakers, and all chairpersons for their invaluable contributions to the programme. The Society would also like to thank the industry for their unfailing support for making this event possible. Last but not least, my sincere thanks to the hard work of the organizing committee and meeting secretariat and your participation.

I wish all of you having a fruitful and enjoyable meeting today.

**Dr. Ada Lin** President

The Hong Kong Society for Infectious Diseases

# COUNCIL



# The Hong Kong Society for Infectious Diseases (April 2022 - March 2024)

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Dr. Anthony Raymond Tam

Dr. Joseph Kay-yan Tsang

Dr. Bonnie Chun-kwan Wong

# PROGRAMME ]

Time	Programme
13:45 - 13:50	Welcome Speech Dr. Ada Lin, President, The Hong Kong Society for Infectious Diseases
13:50 - 15:00	Symposium I Chairpersons: Dr. Ada Lin and Dr. Lam Yim Kwan
	COVID-19 Prevention in Oncology Patients: What Else Beyond Vaccination? Dr. Wong Sin Yew Infectious Disease Specialist Infectious Disease Partners Pte Ltd, Gleneagles Medical Singapore
	Q & A
	Overview on Treatment for HIV-Related Malignancies Dr. Eugenie Hui Consultant Department of Medicine Queen Elizabeth Hospital, Hong Kong
	Q & A
15:00 - 15:15	Break
15:15 - 16:05	Symposium II Chairpersons: Dr. Jacky Chan and Dr. Bryan Li
	Diagnostics of Infections in Oncology Patients Dr. Jonpaul Zee Honorary Consultant in Infectious Disease
	Department of Pathology Hong Kong Sanatorium and Hospital, Hong Kong
	Prevention of Infections in Oncology Patients by Vaccinations Dr. Wilson Lam Specialist in Infectious Disease Private Practice Hong Kong
	Q & A
16:05 - 16:45	Clinical Case Presentation Chairperson: Dr. Winnie Sin Presenters: Dr. Chris Choi and Dr. Fion Luk Panelists: Dr. Helen Chan and Dr. Eugenie Hui
16:45 - 16:50	Closing Speech Dr. Wilson Lam, Vice-president, The Hong Kong Society for Infectious Diseases

# ACADEMIC ACCREDITATIONS

Organization	Points Accredited
Hong Kong College of Community Medicine	2
Hong Kong College of Emergency Medicine (Cat B)	2.5
The Hong Kong College of Family Physicians (Cat 5.2)	2
The Hong Kong College of Obstetricians and Gynaecologists	2.5
The Hong Kong College of Otorhinolaryngologists (Cat 2.2)	3
Hong Kong College of Paediatricans (Cat A)	3
The Hong Kong College of Pathologists (passive)	3
Hong Kong College of Physicians (passive)	2.5
Hong Kong College of Radiologists (Cat B)	2.5
The College of Surgeons of Hong Kong	3.5
MCHK Programme	3

# **FACULTY**

# The Council of the Society would like to thank the faculty members for their invaluable contributions to the 25<sup>th</sup> Annual Scientific Meeting

# Dr. Helen Chan

Associate Consultant, Infectious Diseases Team, Department of Medicine, Queen Elizabeth Hospital, Hong Kong

# Dr. Jacky Chan

Consultant, Department of Medicine and Geriatrics, Princess Margaret Hospital, Hong Kong

# Dr. Chris Choi

Resident, Department of Medicine & Geriatrics, Princess Margaret Hospital, Hong Kong

# Dr. Eugenie Hui

Consultant, Department of Medicine, Queen Elizabeth Hospital, Hong Kong

# Dr. Wilson Lam

Specialist in Infectious Disease, Private Practice, Hong Kong

# Dr. Lam Yim Kwan

Consultant, Department of Medicine and Geriatrics, United Christian Hospital, Hong Kong

# Dr. Bryan Li

Associate Consultant, Department of Medical Oncology, Queen Mary Hospital, Hong Kong

# Dr. Ada Lin

Director of Medical Education and Resident Medical Services, Specialist in Infectious Disease, HKSH Medical Group Limited, Hong Kong

# **Dr. Fion Luk**

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# Dr. Winnie Sin

Associate Consultant, Division of Infectious Diseases, Department of Medicine, Alice Ho Miu Ling Nethersole Hospital, Hong Kong

# Dr. Wong Sin Yew

Infectious Disease Specialist, Infectious Disease Partners Pte Ltd, Gleneagles Medical, Singapore

# Dr. Jonpaul Zee

Honorary Consultant in Infectious Disease, Department of Pathology, Hong Kong Sanatorium and Hospital, Hong Kong

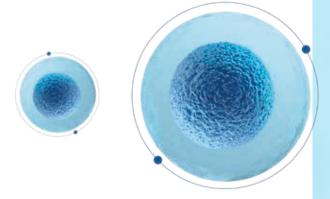
# **SYMPOSIUM I**

# COVID-19 Prevention in Oncology Patients: What Else Beyond Vaccination?

Dr. Wong Sin Yew

Infectious Disease Specialist, Infectious Disease Partners Pte Ltd, Gleneagles Medical, Singapore

While Coronavirus Disease 2019 (COVID-19) continues to threaten international health, vaccination against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has demonstrated to reduce the burden of disease. Nevertheless, vulnerable populations including immunocompromised persons (in particular patients with haematological malignancies and oncology patients on active chemotherapy) remain at risk for severe COVID-19. Monoclonal antibodies, offering rapid protection against COVID-19 irrespective of immune system status, are potential options for COVID-19 immuno-prophylaxis. Some combinations of monoclonal antibodies and antiviral therapies are already in use through emergency or temporary authorization for pre-exposure prophylaxis against COVID-19 or treatment of mild to moderate disease. These additional COVID-19 therapeutic options could provide potential solutions to mitigate the risk for severe outcome in the vulnerable population.



# SYMPOSIUM I

# **Overview on Treatment for HIV-Related Malignancies**

# Dr. Eugenie Hui

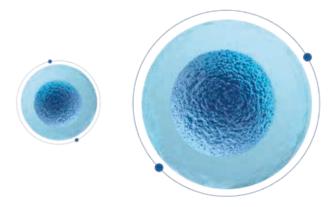
Consultant, Department of Medicine, Queen Elizabeth Hospital, Hong Kong

People with HIV (PWH) and AIDS have a higher incidence of malignancies as compared with the general population. HIV attacks and compromises the host immune system, making them susceptible to certain types of infections and cancers. AIDS-defining cancers, namely aggressive non-Hodgkin lymphoma, Kaposi sarcoma and invasive cervical cancer, are significantly more common in PWH due to their heavily suppressed immune system, commonly at diagnosis of HIV before treatment.

In the past two to three decades, with the advancement and wider availability of combination antiretroviral therapy (cART) and appropriate supportive measures, many PWH are now ageing with the infection. Longer life expectancy leads to increased exposure to carcinogens and cancer-related viruses, making them also more vulnerable to develop other cancers that are not well-known to be strongly associated with AIDS.

Cancer treatment in PWH can be challenging. Their cancer journeys require expert and multidisciplinary specialist input in managing complex drug-drug interactions, multiple comorbidities, co-infections/opportunistic infections and complicated social dilemmas. With prompt initiation of cART and appropriate prophylactic therapies, most cancers in PWH can be managed similarly to that as in the general population with comparable survival rates.

The world of evolving cancer therapies offers a better chance of survival for cancer patients. New technologies like immunotherapy and cell-based therapy involving manipulation of the hosts' immune system may seem controversial in this special population with already compromised immunity. However, recent experience shows that some of these therapies are not only feasible, but also safe and promising in optimizing cancer control and improving survival in this subgroup of cancer patients.



# SYMPOSIUM II

# **Diagnostics of Infections in Oncology Patients**

# Dr. Jonpaul Zee

Honorary Consultant in Infectious Disease, Department of Pathology, Hong Kong Sanatorium and Hospital, Hong Kong

Rapid and accurate identification of the invading pathogen and antimicrobial susceptibility are of utmost importance in improving outcome of oncology patient with infection. Blood culture is still the gold standard for diagnosis of blood stream infection (BSI), although its sensitivity is affected by many factors, such as fastidiousness of the pathogen and prior antibiotic exposure. In recent years, Matrix-Assisted Laser Desorption Ionization Time-Of-Flight Mass Spectrometry (MALDI-TOF MS) has provided a rapid solution for pathogen identification, omitting the time-consuming subculture routines and phenotypic testing. To supplement MALDI-TOF MS, commercial multiplex PCR platforms are now available to screen multiple targets simultaneously, including gram-negative/ positive bacteria, fungi and antimicrobial resistance genes with rapid turnaround-time. "Pre-culture" direct molecular detection is not widely used due to their lower sensitivity and specificity.

Commercial multiplex PCR platforms are also available for syndromic testing of varies body fluid, including respiratory tract specimen, stool, cerebral spinal fluid and joint fluid. However, the presence of pathogen nucleic acid does not equal to active infection, clinical judgement is needed when interpreting these results.

In the absence of a positive culture, invasive fungal disease (IFD) can be difficult to diagnosed in oncology patients. EORTC/MSGERC consensus definitions of IFD is now revised as more data on clinical features, performance of fungal markers (Galactomannan and BDG) and fungal PCR (Aspergillus and Pneumocystis jirovecii) are available.

Finally, broad-range PCR combined with metagenomics is a useful tool for culture negative specimen due to unusual organism or prior antibiotic exposure. However, their sensitivity and specificity are limited by the presence of human/environmental DNA and other PCR inhibitors.

# SYMPOSIUM II

# **Prevention of Infections in Oncology Patients by Vaccinations**

# Dr. Wilson Lam

Specialist in Infectious Disease, Private Practice, Hong Kong

Prevention is better than cure. And curing cancers is already a daunting task let alone doing that with background noises of nasty infections. Oncology patients are immuno-compromised to different degrees because of their underlying malignancies and treatment and hence are highly susceptible to various infectious diseases. Some of those infections are readily vaccine-PREVENTABLE but somehow vaccination is an often neglected area of clinical management. Prevention of common infectious diseases like influenza, pneumococcal infection, herpes zoster lead to better outcomes in terms of morbidities and mortalities. Furthermore, disruption of cancer treatment by even not severe infections is always a nuisance to both oncologists and patients and bring along unnecessary anxiety and inconveniences.

However, recommending immunizations for oncology patients are difficult as cancer treatment has changed substantially over the years and we often need to extrapolate already limited data from clinical studies to ensure we do the best to protect our patients, who are not well known to elicit strong immunological responses to vaccines in general. Also, there is a limited window period of time (i.e. before commencement of cancer treatment) which we can apply knowledge of immunisation in order to bring out the best of vaccines used in oncology patients.

In this talk, we shall discuss the general considerations of vaccination in oncology patients. We would all discuss about recommendations of different vaccines and their use with regard to oncology patients in Hong Kong. And it is inevitable that use of COVID-19 vaccines in immuno-compromised patients would be touched upon briefly as well.

# **ACKNOWLEDGEMENTS**

The Council of the Society would like to extend their heartfelt thanks to the sponsors for their generous support to the 25<sup>th</sup> Annual Scientific Meeting

# AbbVie Limited

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# NOTE

# NOTE



# **NOW CURE\*** 4 WEEKS SOONER WITH MAVIRET $^{\scriptscriptstyle{f 0}}$

MAVIRET® offers a pangenotypic 8-week duration for treatment-naïve HCV patients<sup>1†</sup>



TREATMENT **COMPLETED 4 WEEKS SOONER** 

8-week duration for treatment-naïve patients1

**HIGH CURE\*** RATES (ITT)

treatment-naïve (n=2,100/2,149)24



ONCE-DAILY DOSING

(3 tablets with food)18

**AASLD AND EASL** RECOMMEND

**TREATMENT SIMPLIFICATION** 

with 8-week MAVIRET®3,4II



# MAVIRET $^{\circ}$ is indicated for the treatment of chronic HCV infection in adults and adolescents aged 12 to <18 years.

- \* SVR12, defined as HCV RNA less than the lower limit of quantification at 12 weeks after the end of treatment and was the primary endpoint in all the studies.

  Refers to GT1-6 patients, excluding decompensated cirrhotic patients and liver or kidney transplant recipients. MAVIRET® is not indicated in decompensated cirrhosis. The recommended duration of MAVIRET® is 12 weeks in liver or kidney transplant recipients, with or without cirrhosis.
- \*2,149 HCV patients were included in a pooled analysis, whereas data were pooled from 10 phase 3 clinical trials of treatment-naïve patients with HCV GT 1-6 without cirrhosis/with compensated cirrhosis (treatment adherence analysis) and 13 phase 3 clinical trials of all patients with HCV (interruption analysis).

  \*\* Tables must be swallowed whole with food, Do not chew, crush, or break the tablets as this may after the bioavailability of the agents.

  \*\* Simplified treatment is recommended in treatment-naïve patients with or without compensated cirrhosis, where no RAS-testing/genotyping/subtyping is required.

AASLD=American Association for the Study of Liver Diseases. EASL=The European Association for the Study of the Liver. GT=genotype. HCV=hepatitis C virus. ITT=intention-to-treat. RAS=resistance-associated substitution. RNA=ribonucleic acid. SVR12=sustained virologic response at 12 weeks

MAVIKE: Paparevated Presenting information: Tablets glecaprevit/pibrentasvir: 100mg/40 mg Indication: Treatment of adult and adolescents, aged 12 to <18 years old, patients with chronic hepatitis C virus (HCV) Dosage: Three tablets once daily with food. Refer to package insert for treatment regimen and duration by specific patient populations. Contraindications: patients with severe hepatic impairment; concomitant use with atazanavir containing products, atorvastatin, sinvastatin, dabigatran etexilate, ethinyl oestradiol-containing products, strong P-gp and CVP3A inducers (e.g., rifampicin, carbamazepine, St. John's wort, phenobarbital, phenytoin, and primidone). Precautions: Hepatitis B virus (HBV) reactivation; Moderate hepatic impairment; patients who failed a prior regimen containing an NSSA-andro an NSSIA-andro an NSSIA-andro an NSSIA-andro an NSSIA-andro an NSSIA-andro an NSSIA-andro and analysis of the patients who failed a prior regimen containing and advantage of the patients which are the patients with rare hereidilary problems of galactose indicency or glucose-galactose malabsorption. Interactions: angleotens in Ir except biolockers (e.g. losartan, valant,) antitionylinings (e.g. dabigatran etexilate), anticonvulsants (e.g. carbamazepine, phenytoin, phenobarbital, primidone), aritimycobacterials (e.g. rifampicin), ethinyl-cestradiol-containing products (e.g. ethinyloestradiol/norgestimate, ethinyloestrad

The Market Hong Kong Prescribing information 2020. 2. Zamor PJ, et al. High sustained virologic response rates of Giecaprevir/Pibrentasvir in patients with dosing interruption or suboptimal adherence. Am J Gastroenterol. 2021;116:1896–1904. 3. AASLD and IDSA. HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C. Available at: https://www.hcvguidelines.org/. Accessed 9 February 2022. 4. European Association for the Study of the Liver. EASL recommendations on treatment of repatities C: Final update of the series. J Hepatol 2020;73:1170–1218.

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# References:

- Data on file at Baxter, available on www.stabforum.com
   Dominique Thiveaud, et al Comparison of the performance of four elastomeric devices European Journal of Hospital Pharmacy Practice P.2 2005.

HK-MD16-210001



# The BioFire® FilmArray® Pneumonia plus Panel

1 Test. 34 Pathogens. ~1 Hour.

# BioFire Pneumonia plus Panel Targets

# **BACTERIA**

# (Semi-quantitative)

Acinetobacter calcoaceticusbaumannii complex

Enterobacter cloacae complex

Escherichia coli

Haemophilus influenzae

Klebsiella aerogenes

Klebsiella oxytoca

Klebsiella pneumoniae group

Moraxella catarrhalis

Proteus spp.

Pseudomonas aeruginosa

Serratia marcescens

Staphylococcus aureus

Streptococcus agalactiae

Streptococcus pneumoniae

Streptococcus pyogenes

# ATYPICAL BACTERIA

(Qualitative)

Chlamydia pneumoniae Legionella pneumophila Mycoplasma pneumoniae

# **VIRUSES**

Adenovirus

Coronavirus

Human Metapneumovirus

Human Rhinovirus/Enterovirus

Influenza A

Influenza B

Middle East Respiratory

Syndrome Coronavirus (MERS-CoV)

Parainfluenza Virus

Respiratory Syncytial Virus

# ANTIMICROBIAL RESISTANCE GENES Carbapenemases

IMP

**KPC** 

NDM

OXA-48-like

VIM

# **ESBL**

CTX-M

# **Methicillin Resistance**

mecA/C and MREJ (MRSA)

# Stop the Guessing Game

The lower respiratory tract has a complex microbiology and separating colonizing organisms from true pathogens is challenging. The BioFire Pneumonia *plus* Panel offers 15 semi-quantitative bacteria—indicating not only what pathogen is detected, but also how much is present. Organism concentrations are calculated in DNA copies/mL and rounded to the nearest whole one-log "bin," making it easier than ever to know how much organism is in a sample.<sup>1</sup>

# **Semi-quantitative bin results**







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# THE US CDC RECOMMENDS SHINGRIX AS THE PREFERRED VACCINE FOR THE **PREVENTION OF SHINGLES**



✓ patients 50 years of age or older
✓ patients who previously received zoster vaccine (live)

Safety information: SHINGRIX is indicated for prevention of herpes zoster (HZ) and post-herpetic neuralgia (PHN), in adults 50 years of age or older. For intramuscular injection only. SHINGRIX is given as a 2-dose series. The second dose can be administered as soon as 2 months after the first dose (and if necessary, anytime between 2-6 months). Most frequently reported side effects include pain at the injection site, myalgia, fatigue and headache. Most of these reactions were not long-lasting.

CDC = Centers for Disease Control and Prevention

There are Inhited data on vaccination with SHINGRIX in patients previously vaccinated with ZVL. No apparent safety differences were observed between study groups within 30 days post-dose 2 of SHINGRIX, Solicited local and systemic symptoms were similar between study groups: the levels of antibodies and immune cells that correlate with protection against shingles have not been clearly defined. There are no head-to-head clinical trials companing the efficacy and safety of SHINGRIX to ZVL.

There are no head-to-head clinical trials companing the efficacy and safety of SHINGRIX to ZVC.

Abbreviated Prescribing Information

Name of the Medicinal Products: Shingrix vaccine powder and suspension for injection, Herpes zoster vaccine (recombinant, adjuvanted) Qualitative and Quantitative Composition: After reconstitution, 1 dose (0.5 ml) contains 50 micrograms of gE antigen adjuvanted with ASOIB, Varicella Zoster Virus (VZV) glugoprotein E (gE) produced by recombinant DNA technology in Chinese Hamster Ovarian (CHO) cells. The GlaxoSmithKiline proprietary, ASOI<sub>8</sub>, Adjuvant System is composed of the plant extract Cuillaja saponaria Molina, retaction 2 (105-27) (50 micrograms) and 3-0-deseage) 4-4-monophosphorylipia d, MiPL. Throm Salmonella minnesotis is indicated for prevention of herpes zoster (HZ) and post-herpetic neural gale (PHN) in adults 50 givers age or older. Postology and Administration: The primary vaccination schedule consists of two doses of 0.5 ml each: an initial dose followed by a second dose 2 months later. Method of administration: Internuscular injection. Contraindications: Hypersensitivity to the active substances with only a contraindications and administration in the vaccine, secondation with Shingirs should be postponed in subjects suffering from an acute severe febrile illness. However, the presence of a minor infection, such as a cold, should not treat oil vaccination. As with any vaccine and as should be given with caution to individuals with thromocytopenia or any capacitation disorders instrused as a psychogenic response to the needle injection. This can be accompanied by several neurological signs such as transient visual disturbance, parasethesia and tonic-clonic limb movements during recovery, lit is important that procedures are in place to disturbance and parasethesia and tonic-clonic limb movements during recovery, lit is important that procedures are in place to disturbance, parasethesia and tonic-clonic limb movements during recovery, lit is important that procedures

References: 1, GSK, SHINGRIX Hong Kong Prescribing Information GDS03. 2, MSD. Zoster live, attenuated vaccine Product Circular. 3. Centers for Disease Control and Prevention. Recommendations of the Advisory Committee on Immunization Practices for zoster vaccines. MMWR. 2018 Jan;67(3):103-8.

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- VEKLURY® (n=541) significantly reduced time to recovery# by a median of 5 days compared with placebo (n=521) in the overall study population\*\*1
- Sped up recovery# by a median of 1 week vs placebo in patients who received oxygen support at baseline (11 days vs 18 days; RR: 1.31; 95% CI: 1.12—1.52)<sup>+1</sup>
- Shortened the period to receive oxygen by a median of 8 days (13 days vs 21 days) in patients who received oxygen support at baseline<sup>11</sup>
- \* The median time to recovery\* was 10 days for VEKLURY® but 15 days for placebo (RR for recovery: 1.29; 95% Cl: 1.12–1.49; p < 0.001).¹
  † ACTT-1 was a double-blind, multicenter, randomized, placebo-controlled trial that compared the efficacy and safety of VEKLURY® and placebo in adult patients hospitalized with COVID-19 and lower respiratory tract infection. Of total 1,062 patients, they were randomly assigned in a 1.1 ratio to VEKLURY® or placebo. All received supportive care according to the standard of care for the trial site hospital. The primary outcome was the time to recovery.\* The key secondary outcome was clinical status at Day 15, as assessed on the ordinal scale. Other outcomes included period with supplemental oxygen up to day 29 if it was being used at baseline.
- Since available information on the efficacy and safety of this drug in connection with the SARS-CoV-2 infection is extremely limited, careful determination should be made as to need for administration considering the latest information.3
- <sup>5</sup> In line with the majority of use in clinical trials to date, in principle VEKLURY® should be used for SARS-CoV-2 infections in severe patients whose oxygen saturation of ≤ 94% (room air), requiring supplemental oxygen, under ECMO introduction, or under invasive mechanical ventilation.
- \*The primary outcome was the time to recovery, defined by either discharge from the hospital or hospitalization for infection control or other non-medical reasons. Recovery RR > 1 indicate a benefit for VEKLURY®.

Cl=confidence interval; COVID-19=coronavirus disease 2019; ECMO=extracorporeal membrane oxygenation; RR=rate ratio; SARS-CoV-2=severe acute respiratory syndrome coronavirus 2

References: 1. Beigel JH, et al. N Engl J Med. 2020;383:1813-1826. 2. VEKLURY® Hong Kong Prescribing Information. [RDV-MAY20 (v1.0)]

# VEKLURY® Abbreviated Prescribing Information (Version: RDV-MAY20 v1.0)

Presentation: Veklury concentrate for solution for infusion 100 mg/20 mL; Each vial contains 100 mg of remdesivir. Colourless to clear yellow solution. Veklury powder for concentrate for solution for infusion 100 mg/20 mL; Each vial contains 100 mg of remdesivir. Colourless to clear yellow solution. Veklury powder for concentrate for solution for infusion 100 mg/20 mL; Each vial contains 100 mg of remdesivir. Presentation: Veklury concentrate for solution for influsion 100 mg of remdesivir. Colourless to clear yellow solution. Veklury powder for concentrate for solution for influsion 100 mg of remdesivir. White to off-white to yellow solid. Indications: SARS-CoV-2 Infection. In principle remdesivir should be used for SARS-CoV-2 infections in severe patients whose oxygen saturation of ≤ 94% (room air), requiring supplemental oxygen, under ECMO introduction, or under invasive mechanical ventilation. Dosage: Adults and pediatrics with body weight ≥40 kg: Single dose of remdesivir 200 mg IV injection on Day 1 followed by once-daily doses of remdesivir 100 mg IV injection from Day 2. Pediatrics with body weight between 3.5 kg and ≤40 kg: One dose of remdesivir 5 mg/kg IV injection on Day 1 followed by remdesivir 2.5 mg/kg IV injection from Day 2. Solution for concentrate for influsion is not recommended for pediatric between 3.5 kg and ≤40 kg: One dose of remdesivir 5 mg/kg IV injection on Day 1 followed by remdesivir 2.5 mg/kg IV injection from Day 2. Solution for concentrate for influsion is not recommended for pediatric between 3.5 kg and ≤40 kg: One dose of remdesivir 5 mg/kg IV injection on Day 1 followed by remdesivir 2.5 mg/kg IV injection from Day 2. Solution for concentrate for influsion is not recommended for pediatric between 3.5 kg and ≤40 kg: One dose of remdesivir 5 mg/kg IV injection on Day 1 followed by remdesivir 5 mg/kg IV injection on Day 1 followed by remdesivir 5 mg/kg IV injection on Day 1 followed by remdesivir 5 mg/kg IV injection on Day 1 followed by remdesivir 5 mg/kg IV injection from Day 2. Pediatrics with 5 mg/kg IV injection on Day 1 followed by 5 mg/kg IV injection from Day 2. Solution for concentrate for influsion in the followed by 5 mg/kg IV injection from Day 2. Pediatrics with 5 mg/kg IV injection from Day 2. Pediatrics with 5 mg/kg IV injection from Day 2. Pediatrics with 5 mg/kg IV injection from Day 2. Pediatrics with 5 mg/kg IV injection from Day 2. Pediatrics with 5 mg/kg IV inje Should be administered only if the therapeutic benefits outweigh the risks for patients with ALT levels are <5 times the Upper Limit of Normal Range. Contraindications: Hypersensitivity to the active substances or to any of the excipients. Warnings and Precautions: Patients should be closely monitored by appropriate clinical and laboratory monitoring during treatment with remdesivir. Laboratory values should be monitored on a daily basis. If any adverse drug reactions are observed, administration should be continued only if it is determined that the therapeutic benefits outweighs the risks. Kidney and liver function tests should be performed daily before and during administration and the patient's condition should be carefully monitored. The patient's condition should be carefully monitored. administration should be immediately discontinued and appropriate measures should be taken if any abnormalities are observed. Adverse reactions: Information on the safety of remdesivir is extremely limited, and such information is still being collected. Clinically significant adverse reactions include acute renal impairment, hepatic impairment and infusion reactions (hypotension, nausea, vomiting, sweating and tremor).

Drug interactions: In vitro studies have shown that remdesivir is a substrate for CYP2C8, CYP2D6 and CYP3A4, as well as OATP1B1 and P-gp, and, in addition, is an inhibitor of CYP3A4, OATP1B1, OATP1B3, BSEP, MRP4 and NTCP. No clinical drug-drug interaction studies have been conducted.

Before prescribing, please consult full prescribing information which is available upon request. Veklury, Gilead, Veklury logo and Gilead logo are registered trademarks of Gilead Sciences, Inc., or its related companies,

For medical enquiries, please send your request to asiamedinfo@gilead.com or call 800 908 348 (toll-free number)

In Hong Kong, the product is conditionally approved with very limited safety, efficacy, and quality data for public health emergency to satisfy local unmet medical need and the registration status is subjected to be reviewed by the Pharmacy and Poisons (Registration of Pharmaceutical Products and Substances: Certification of Clinical Trial/Medicinal Test) Committee. The product can only be supplied to designated institutions.



Room 2603, 26th Floor, Hysan Place, 500 Hennessy Road, Causeway Bay, Hong Kong



# THE BEAUTY OF WHAT IS POSSIBLE

BIKTARVY® is a powerful STR that combines the DESCOVY® (FTC/TAF)\* backbone with bictegravir, a novel and unboosted INSTI<sup>1,2</sup>

# **DHHS & IAS RECOMMENDED**

AS AN INITIAL REGIMEN FOR MOST PEOPLE WITH HIV3,4

# **EACS RECOMMENDED**

AS AN INITIAL REGIMEN FOR ART-NAÏVE ADULT HIV-POSITIVE PERSONS⁵

# BIKTARVY® is a small STR with once daily dosing<sup>1,2</sup>







**Active against** HBV†



Low potential for DDIs



Once-Daily small STR<sup>§</sup>



Taken Any Time of Day



No Food Requirements





# **Enough said, Trusted care**

Learn if BIKTARVY\* is right for your patients.

The image is shown for illustration purpose only. It does not represent the actual size of the tablet.

'emtricitabine 200 mg/tenofovir alafenamide 25 mg.'

BIKTARVY' contains TAF, which is active against HBV. Discontinuation of BIKTARVY' therapy in patients co-infected with HIV and HBV may be associated with severe exacerbations of hepatitis. Patients co-infected with HIV and HBV may be associated with severe exacerbations of hepatitis. Patients co-infected with HIV and HBV may be associated with severe exacerbations of hepatitis. Patients co-infected with HIV and HBV may be associated with severe exacerbations of hepatitis. Patients are considered with discontinue BIKTARVY' should be closely monitored with both clinical and laboratory follow-up for at least several months after stopping treatment.'

BIKTARVY' is contraindicated with dofetilide, rifampin and St John's Wort. 

BIKTARVY is contraindicated with dofetilide, rifampin and St John's Wort. 

BIKTARVY is contraindicated with dofetilide, rifampin and St John's Wort. 

BIKTARVY is contraindicated with dofetilide.

Each BIKTARVY tablet is approximately 15 mm x 8 mm.

CrCl, creatinine clearance; DDIs, drug-drug interactions; DHHS, Department of Health and Human Services; EACS, European AIDS Clinical Society; FTC, emtricitabine; HBV, hepatitis B virus; HIV, human immunodeficiency virus; IAS, International AIDS Society; INSTI, integrase strand transfer inhibitor; PLHIV, people living with HIV; STR, single-tablet regimen; TAF, tenofovir alafenamide.

References: 1. BIKTARVY Hong Kong Prescribing Information (HK-JUN19-EU-MAY19). 2. Deeks ED. Bictegravir/emtricitabine/tenofovir alafenamide: A review in HIV-1 infection. Drugs 2018; 78(17): 1817-28. 3. Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in adults and adolescents with HIV. Department of Health and Human Services. Available at: http://aidsinfo.nih.gov/contentfiles/lyguidelines/AdultandAdolescentGL.pdf. (Accessed November 21, 2020). 4. Saag MS, Gandhi RT, Hoy JF, et al. Antiretroviral Drugs for Treatment and Prevention of HIV Infection in Adults: 2020 Recommendations of the International Antiviral Society-USA Panel. Jama 2020; 324(16): 1651-69. 5. The EACS treatment guidelines 10.1 October, 2020. Available at: https://www.eacsociety.org/files/guidelines-10.1\_5.pdf (accessed November 21, 2020). 6. Di Perri G. Clinical pharmacology of the single tablet regimen bictegravir/emtricitabine/ tenofovir alafenamide (BIC/FTC/TAF). Infez Med 2019; 27(4): 365-73.

(accessed November 21, 2020). 6. Di Perri G. Clinical pharmacology of the single tablet regimen bictegravir/emtricitabine/ tenofovir alafenamide (BIC/FTC/TAF). Infez Med 2019; 27(4): 365-73.

BIKTARVY\* Abbreviated Prescribing Information (Version: HK\_JUN19-EU-MAY19)
Presentation: Each film-coated tablet contains bictegravir sodium equivalent to 50 mg of bictegravir, 200 mg of emtricitabine, and tenofovir alafenamide fumarate equivalent to 25 mg of tenofovir alafenamide. Purplish-brown, capsule-shaped, film-coated tablet debossed with "GSI" on one side and '9883" on the other side of the tablet. Each tablet is approximately 15 mm x 8 mm. Indications: Biktarvy is indicated for the treatment of adults infected with human immunodeficiency virus-1 (HIV-1) without present or past evidence of viral resistance to the integrase inhibitor class, emtricitabine or tenofovir. Dosage: Adults: One tablet to be taken once daily with or without food. Elderly: No dose adjustment is required. Renal impairment. No dose adjustment for patients with estimated creatinine clearance (CrCl) a 30mL/min. Hepatic impairment: No dose adjustment for patients with bild or moderate hepatic impairment (Child-Pugh-Turcotte [CPT] Class A or B). Not recommended in patients with severe hepatic impairment: No dose adjustment for patients with mild or moderate hepatic impairment (Child-Pugh-Turcotte [CPT] Class A or B). Not recommended in patients with severe hepatic impairment: One administration with reflamation and St. John's Wort (Hypericum perforatum). Warnings and Precautions: Patients with file population; The safety and efficacy in children and adolescents aged less than 18 years not yet been established. Contraindications: Hypersensitivity to the active substances or to any of the excisions of hepatitis. Patients with file patients with chronic hepatitis and a file patient and patients. Co-infected with HIV and HBV may be associated with severe action in the read manual patients. Co-infected with HIV and HBV may be associated with severe ach

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class, lamivudine, or tenofovir

Abbreviations: ART: Antiretroviral therapy; CVD: Cardiovascular disease; HIV: Human immunodeficiency virus; RNA: Ribonucleic acid; NNRTI: Non-nucleoside reverse transcriptase inhibitor

References: 1. Kumar P, et al. Switching to DOR/3TC/TDF Maintains HIV-1 Virologic Suppression Through Week 144 in the DRIVE-SHIFT Trial. J Acquir Immune Defic Syndr 2021;87:801–805 2. European AIDS Clinical Society. EACS Guidelines. October 2021. Version 11.0. 3. Delstrigo Hong Kong Product Circular.

Delstrigo Selected Safety Information
Indications: Delstrigo (doravirine 100 mg/lamivudine 300 mg/tenofovir disoproxil fumarate 300mg) is indicated for the treatment of adults infected with HIV-1 without past or present evidence of resistance to the NNRTI class, lamivudine, or tenofovir.
Contraindications: +Hyersensitivity to the active substances or to any of the excipients. Co-administration with medicinal products that are strong cytochrome P490 (CYPISA enzyme inducers is contraindicated as significant decreases in doravirine plasma concentrations are expected to occur. For the list of contraindicated medicines, please consult the full prescribing information. concentrations are expected to occur. For the list of contraindicated medicines, please consult the full prescribing information. Precautions: • NNRTI substitutions and use of doravirine - Doravirine has not been evaluated in patients with previous virologic failure to any other antiretroviral therapy. There is not sufficient clinical evidence to support the use of doravirine in patients infected with HIV-1 with evidence of resistance to the NNRTI class. - Severe acute exacerbation of hepatitis B in patients co-infected with HIV-1 and HBV - All patients with HIV-1 should be tested for the presence of hepatitis B virus (HBV) before initiating antiretrovirial therapy, Patients who are co-infected with HIV-1 and HBV should be closely monitored with both clinical and laboratory follow-up for at least several months after stopping treatment with Delstrigo. • New onset or worsening renal impairment - Delstrigo should be avoided with concurrent or recent use of nephrotoxic medicinal products (e.g., high-dose or multiple NSAIDs). Persistent or worsening bone pain, pain in extremitles, fractures, and/or muscular pain or weakness may be manifestations of proximal renal tubulopathy and should prompt an evaluation of renal function in at risk patients. • Bone loss and mineralisation defects. The effects of tendrovir (discovery) as a function to the path and future fracture is the content of tendroviries and provinced markers on function the path and future fracture is the content of tendroviries. tubulopathy and should prompt an evaluation of renal function in at risk patients. \* Bone loss and mineralisation defects - The effects of tendrovir disporped associated changes in BMD and biochemical markers on long-term bone health and future fracture risk rac unknown. Assessment of BMD should be considered for HIV-1 infected adult patients who have a history of pathologic bone fracture or other risk factors for osteoporosis or bone loss. \* Co-administration with other antiviral products - Oravirnnealamivudine/tendrovir disoproxid, or tendrovir alafanamide, or with adefovir dipioval \* Use with CYP3A inducers - Caution should be given to prescribing doravirine vinnume reactivation syndrome has been reported in patients treated with combination antiretroviral therapy. \* Lactose - Delstrigo contains factose monohydrate, Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or queness-enablescriptons should not take his medicine.

iency or glucose-galactose malabsorption should not take this medicine.

Adverse events: • The most frequently reported adverse reactions considered possibly or probably related to doravirine were nausea (4%) and headache (3%). Other common adverse events (≥1% to <10%) associated with doravirine lamivudine/tenofovir

disoproxil include abnormal dreams, insomnia, headache, dizziness, somnolence, cough, nasal symptoms, nausea, diarrhoea, abdominal pain, vomiting, flatulence, alopecia, rash, muscle disorders, fatique, fever and alanine aminotransferase increased. For detailed side effects, please consult the full prescribing information.

Drug interactions: Deletring is a complete regimen for the treatment of HIV-1 infection; therefore, Delstrigo should not be administered with other antiretroviral medicinal products. Effects of other medicinal products on doravirine, lamivudine, and tendervir disoproxil. Doravirine: Doravirine is primarily metabolised by CYPSA, and medicinal products that induce or inhibit CYPSA are expected to affect the clearance of doravirine: Lamivudine: Because lamivudine is primarily eliminated by the kidneys through a combination of glomerular filtration and active tubular secretion, co-administration of doravirine/lamivudine/enofovir disoproxil eliminated in and active tubular secretion and active tubular secretion co-administration of doravirine/lamivudine/enofovir disoproxil with medicinal products that reduce renal function or compete for active tubular secretion via Opani and the products of the discretion of doravirine/lamivudine/enofovir disoproxil with medicinal products that reduce renal function or compete for active tubular secretion via OATI, DAT3 or MRP4 may increase serum concentrations of tenderiv. Effects of doravirine. Jamivudine, and tendovir disoproxil on other medicinal products but are dependent on transport proteins for absorption and/or elimination or that are metabolised by CYP enzymes.\* Lamivudine does not inhibit or induce CYP enzymes.\* Enrolovir is a does not inhibit or induce CYP enzymes.\* Isamivudine involving tendovir with other medicinal products that are dependent on transport proteins for absorption and/or elimination or that are metabolised by CYP enzymes.\* Lamivudine does not inhibit or induce CYP enzymes.\* Enrolovir is add on the results of in vitro experiments and t









# Indicated for<sup>1</sup>



Complicated intra-abdominal infection

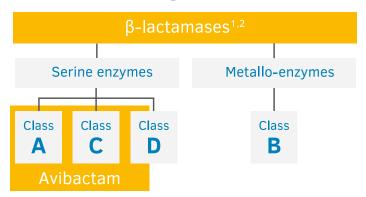


Complicated urinary tract infection, including pyelonephritis



Hospital-acquired pneumonia, including ventilator-associated pneumonia

# **Novel β-Lactamases Inhibitor** with Breakthrough Inhibition<sup>1,2</sup>



Avibactam inhibits both Ambler class A and class C β-lactamases and some class D enzymes, including: 1\* ESBLs
 KPCs
 OXA-48 carbapenemases
 AmpC enzymes

# ZAVICEFTA ABBREVIATED PACKAGE INSERT

1. TRADE NAME: ZAVICEFTA 2, PRESENTATION: Powder for concentrate for solution for infusion 2g ceftazidime/0,5g avibactam 3, INDICATIONS: Indicated in adults for: (a) complicated intra-abdominal infection (cIAI); (b) complicated nary tract infection (cUTI), including pyelonephritis; (c) hospital-acquired pneumonia (HAP), including ventilator associated pneumonia (VAP) 4. DOSAGE: 2.5g Q8H for 2 hours. Refer to full PI for duration of therapy. 5. CONTRAINDICA TIONS: Hypersensitivity to active substances, to any of the excipients or to any cephalosporin antibacterial agent. Severe hypersensitivity (e.g., anaphylactic reaction, severe skin reaction) to any other type of β-lactam antibacterial agent (e.g., penicillins, monobactams or carbapenems) 6. WARNINGS & PRECAUTIONS: Hypersensitivity reactions; clostridium difficile-associated diarrhea; in patients with renal impairment; nephrotoxicity; direct antiglobulin test (DAGT or COOMBs test) seroconversion and potential risk of haemolytic anaemia; in patients with controlled sodium diet. Ceftazidime may interfere with copper reduction methods (Benedict's, Fehling's, Clinitest) for detection of glycosuria leading to false-positive results. Ceftazidime does not interfere with enzyme-based tests for glycosuria. (Please refer to the full Prescribing Information for details) 7. INTERACTIONS: Probenecid and chloramphenicol. Concurrent treatment with high doses of cephalosporins and nephrotoxic medicinal products such as aminoglycosides or potent diuretics (e.g., furosemide) may adversely affect renal function. 8. PREGNANCY AND LACTATION: Should only be used during pregnancy only if the potential benefit outweighs the possible risk. Ceftazidime is excreted in human milk in small quantities and a decision must be made whether to discontinue breast feeding or to discontinue/abstain from ceftazidime/au-bactam therapy taking into account the benefit of breast feeding for the child and the benefit of therapy for the woman. 9. SIDE EFFECTS: Very Common: Coombo direct test positive. Common: Candidiasis (including vulvovaginal candidiasis and oral candidiasis), eosinophilia, thrombocytosis, thrombocytopenia, headache, dizziness, diarrhea, abdominal pain, nausea, vomiting, alanine aminotransferase increased, aspartate aminotransferase increased, blood alkaline phosphatase increased, gammaglutamyltransferase increased, blood lactate dehydrogenase increased, rash maculopapular, urticaria, pruritus, infusion site thrombosis, infusion site phlebitis, pyrexia. Reference: HK PI (version date/LPD date) OCT 2018 Date of preparation: MAR2019 Identifier number: ZAVI0319 FULL PRESCRIBING INFORMATION IS AVAILABLE UPON REQUEST.

<sup>\*</sup> Avibactam does not inhibit class B enzymes (metallo-β-lactamases) and is not able to inhibit many class D enzymes. ESBL, extended-spectrum β-lactamase; KPC, Klebsiella pneumoniae carbapenemase.



# TAKE ON THE **CHALLENGES** OF COVID-19



TEST. TREAT. TAKE CHARGE.

# molnupiravir

Reference: 1. molnupiravir US EUA Product Insert.

# MOLNUPIRAVIR Selected Safety Information

- 1. Molnupiravir is authorized for use under an Emergency Use Authorization (EUA) for the treatment of mild-to-moderate coronavirus disease 2019 (COVID-19) in adults:
  - with positive results of direct SARS-CoV-2 viral testing, and
  - who are at high risk for progression to severe COVID-19, including hospitalization or death, and
- for whom alternative COVID-19 treatment options approved or authorized by FDA are not accessible or clinically appropriate
- 2. Molnupiravir is not approved for any use, including the treatment of COVID-19, but is authorized for emergency use by the FDA under an Emergency Use Authorization (EUA).
- The emergency use of molnupiravir is only authorized for the duration of the declaration that circumstances exist justifying the authorization of the emergency use of drugs and biological products during the COVID-19 pandemic under Section 564(b)(1) of the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 360bbb-3(b)(1) unless the declaration is terminated or authorization revoked sooner

# Limitations of Authorized Use

- Molnupiravir is not authorized:

  - for use in patients who are less than 18 years of age for initiation of treatment in patients hospitalized due to COVID-19. Benefit of treatment with molnupiravir has not been observed in subjects when treatment was initiated after hospitalization due to COVID-19
  - for use for longer than 5 consecutive days
  - or pre-exposure or post-exposure prophylaxis for prevention of COVID-19
- Molnupiravir may only be prescribed for an individual patient by physicians, advanced practice registered nurses, and physician assistants that are licensed or authorized under state law to prescribe drugs in the therapeutic class to which molnupiravir belongs (i.e., anti-infectives).

No contraindications have been identified based on the limited available data on the emergency use of molnupiravir authorized under this EUA.

- There are limited clinical data available for molnupiravir. Serious and unexpected adverse events may occur that have not been previously reported with molnupiravir use.
- $\label{lem:model} \mbox{Molnupiravir is not recommended for use during pregnancy. Based on findings from animal reproduction \mbox{\cite{Molnupiravir}}$ studies, molnupiravir may cause fetal harm when administered to pregnant individuals. There are no available human data on the use of molnupiravir in pregnant individuals to evaluate the risk of major birth defects, miscarriage or adverse maternal or fetal outcomes.
- Molnupiravir is authorized to be prescribed to a pregnant individual only after the healthcare provider has determined that the benefits would outweigh the risks for that individual patient. If the decision is made to use molnupiravir during pregnancy, the prescribing healthcare provider must document that the known and potential benefits and the potential risks of using molnupiravir during pregnancy were communicated to the pregnant individual.

- 10. Advise individuals of childbearing potential of the potential risk to a fetus and to use an effective method of contraception correctly and consistently during treatment with molnupiravir and for 4 days after the final
- 11. Prior to initiating treatment with molnupiravir, assess whether an individual of childbearing potential is pregnant or not, if clinically indicated.
- 12. Hypersensitivity reactions, including anaphylaxis, have been reported with molnupiravir. If signs and symptoms of a clinically significant hypersensitivity reaction or anaphylaxis occur, immediately discontinue molnupiravir and initiate appropriate medications and/or supportive care.
- 13. Molnupiravir is not authorized for use in patients less than 18 years of age because it may affect bone and cartilage growth. The safety and efficacy of molnupiravir have not been established in pediatric patients.

14. The most common adverse reactions occurring in ≥1% of subjects in the molnupiravir treatment group in the Phase 3 double-blind MOVe-OUT study were diarrhea (2% versus placebo at 2%),nausea (1% versus placebo at 1%), and dizziness (1% versus placebo at 1%) all of which were Grade 1 (mild) or Grade 2 (moderate). Serious adverse events occurred in 7% of subjects receiving molnupiravir and 10% receiving placebo; most serious adverse events were COVID-19 related. Adverse events leading to death occurred in 2 (<1%) of the subjects receiving molnupiravir and 12 (2%) of subjects receiving placebo.

15. No drug interactions have been identified based on the limited available data on the emergency use of molnupiravir. No clinical drug-drug interaction trials of molnupiravir with concomitant medications, including other treatments for mild to moderate COVID-19, have been conducted.

16. There are no data on the presence of molnupiravir or its metabolites in human milk. It is unknown whether molnupiravir has an effect on the breastfed infant or effects on milk production. Based on the potential for adverse reactions in the infant from molnupiravir, breastfeeding is not recommended during treatment with molnupiravir and for 4 days after the final dose. A lactating individual may consider interrupting breastfeeding and may consider pumping and discarding breast milk during treatment and for 4 days after the last dose of

# Males of Reproductive Potential

17. Nonclinical studies to fully assess the potential for molnupiravir to affect offspring of treated males have not been completed. Advise sexually active individuals with partners of childbearing potential to use a reliable method of contraception correctly and consistently during treatment and for at least 3 months after the last dose of molnupiravir. The risk beyond three months after the last dose of molnupiravir is unknown.

Before prescribing, please consult the full prescribing information.





Presentation: Quadrivalent influenza vaccine (recombinant, prepared in cell culture), solution for injection in pre-filled syringe. Indications: For active immunization for the prevention of influenza disease in adults. Dosage & Administration: One dose of 0.5 mL. For intramuscular injection only. Preferred site is in the deltoid muscle.

Must not be injected intravascularly and must not be mixed with other vaccines in the same syringe. Contraindications: Below 18 years of age. Hypersensitivity to active substances, to any of the excipients or to any trace residuals such as octylphenol ethoxylate. Precautions: Appropriate medical treatment and supervision be available in case of an anaphylactic event. Postpone vaccination in patients with acute febrile illness until the fever is resolved. Antibody response in patients with endogenous or latrogenic immunosuppression may be insufficient to prevent influenza. Flublok must be administered with caution to individuals with thrombocytopaenia or a bleeding disorder bededing may occur following an intramuscular administration. Procedures should be in place to prevent falling and injury and to manage syncope. Drug Interactions: If Flublok is to be given at the same time as another injectable vaccine, the vaccines should always be administered at different injection sites. Pregnancy and lactation: Assessment of risks and benefits should be performed by an HCP before administering Flublok to a pregnant or breast-feeding woman. It is not known whether Flublok vaccine is excreted in human milk. Undesirable effects: Most common reactions reported: Injection-site reactions (tendemess and pain). Other very common and common adverse reactions reported: Headache, Fatigue, Myalgia, Arthralgia, Nausea, Firmness/ Swelling, Redness, Fever, Shivering/ Chills. For other undesirable effects, please refer to the full prescribing information. Preparation: 1 x 0.5 m.L in pre-filled syringe without needle, 1 x 0.5 m.L in pre-filled syringe without needle, 1 x 0.5 m.L in pre-filled syringe without needle, 1 x 0.5 m.L in pre-filled syringe without needle, 1 x 0.5 m.L in pre-filled syringe without needle.



# Reference

1. Flublok® Quadrivalent (Influenza Vaccine) [Prescribing Information]. 2. Dunkle LM, Izikson R, Patriarca P, et al. Efficacy of recombinant influenza vaccine in adults 50 years of age or older. N Engl J Med. 2017;376:2427-2436.
3. Treanor JJ, et. al. Vaccine. 2011;29(44):7733-7739 (PSC04). 4. FDA. https://www.dra.gov/vaccines-blood-biologics/vaccines/flublok Accessed on 14Jan2022 5. US CDC. https://www.dra.gov/vaccines-blood-biologics/vaccines-flublok Accessed on 14Jan2022 5. US CDC. https://www.dra.gov/vaccines-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biologics/vaccines-flublok-document-blood-biolo





Presentation: Live attenuated Japanese Encephalitis Vaccine, powder and diluent for suspension for injection. Individuals 9 months of age and over; A.D.5 mL. single injection. Booster: Adult population (18 years of age and over). There is no need for a booster dose up to 5 years after the administration of air gae dose of IMOJEV. Paediatric population (18 years of age and over): There is no need for a booster dose up to 5 years after the administration of a single dose of IMOJEV. Paediatric population (18 years of age inclusive): One booster dose for hidden and adolescents 5 to 17 years of age have not been established. Any one with a historian of the decision of the decision of the vaccine or after previous administration, please refer to the full prescribing information. Contraindications: Anyone with a history of severe allergic reaction to any component of the vaccine or a vaccine containing the same components or constituents. Vaccination must be postponed in case of febrile or acute disease. Congenital or acquired immune deficient immunely information. Interaction or with asymptomatic HIV infection when accompanied by evidence of impaired immune function. Precautions: Appropriate medical treatment and supervision should always be readily available in case of a rare anaphylactic event following administration of the vaccine. Allergic to any component of the vaccine. Experienced allergic reactions or neurological disorders further to a previous vaccine injection. Pro details of the precautions, please refer to the full prescribing information. Interactions: in adults, IMOJEV may be administration of the vaccine, either standard allone or combined with numners and/or unclease a segletor segments of the vaccine and previous vaccine, either standard allone or combined with numners and/or unclease a segment prepared to the same time as measles vaccine, either standard allone or combined with thumps and/or un







For Healthcare Professionals Only Sanofi Hong Kong Limited

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38 Wong Chuk Hang Road, Wong Chuk Hang, Hong Kong





Abbreviated prescribing information

Dovato Each film-coated tablet contains 50 mg dolutegravir, 300 mg lamiwudine. Therapeutic indication: Indicated as a complete regimen for the treatment of human immunodeficiency virus type 1 (HIV-1) infection in adults with no antiretroviral reatment history and with no known substitutions associated with resistance to the individual components of Dovato. Posology and method of administration: Therapy should be prescribed by a physician experienced in the management of HIV infection. Or aliuse. Can be taken with or without food. Adults: Dovato ne 50 mg/300 mg tablet once daily. A separate preparation of dolutegravir is available where a dose adjustment is indicated due to drug-drug interactions (e.g. rifampicin, carbamazepine, oxerabazepine, phenytoin, phenobarbital, St., John's worr, tervarine (without boosted protesale inhibitors), elavirena, near/anjine, or triprana/arritoraviny, in these cases the physician should refer to the individual product information for dolutegravir. Whem of childbedings potential (MIDCBP) should undergo pregnancy testing before initiation of Dovato. WOCBP who are taking Dovato should use effective contraception throughout treatment. Missed doses: Take Dovato as soon as possible, providing the next dose is not due within 4 hours. If the next dose is due within 4 hours, the patient should have read the interaction of Dovato have a soon as possible, providing the next dose is one due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours, if the next dose is due within 4 hours

Safety information: Overall AE profiles were similar. There was a lower risk of drug-related AEs in the Dovato arm at week 96.

Please read the full prescribing information prior to administration. Full prescribing information is available on request from GlaxoSmithKline Ltd, 23/F, Tower 6, The Gateway, 9 Canton Road, Tsimshatsui, Kowloon, Hong Kong, Abbreviated Prescribing Information based on PI version HK122019 GDS01/EU20190701 For adverse events reporting, please call GlaxoSmithKline Limited at (852) 3189 8989 (Hong Kong) or (853) 2871 5569 (Macau) or email to HK Adverse Event mailbox: HKAdverseEvent@gsk.com

Reference: 1. Cahn P et al. Presented at: International AIDS Conference; July 21-24, 2019; Mexico City, Mexico. Slides WEAB0404LB. 2. Dovato Full Prescribing Information, HK122019.





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Vocabria (cabotegravir 30mg film-coated tablets and 600mg prolonged-release suspension for injection in 3ml.), and Rekambys (rilpivirine 900mg prolonged-release suspension for injection in 3ml.).

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\*\*Total Control Contr

Vocabria (cabotegravir 30mg film-coated tablets and 600mg prolonged-release suspension for injection in 3mL), indications cabotegravir in combination with injustine for freatment of HiV-1 in dusts who are virologically suppressed (HIV-1 RNA ±50 copies/mL) on a stable antiretroviral regimen without present or past evidence of virol resistance to, and no prior failure with agents of NNR11 and INI class. Desings #Adults (over 18 years) carefully selected who agree to the injection schedule and are counselled about the importance of adherence. An oral lead in prior to the initiation of Injections can be used to assess tolerability. For oral lead its report of past of the initiation of Injections can be used to assess tolerability. For oral lead its report of past of the initiation of Injections can be used to assess tolerability. For oral lead its report of the initiation of Injections and very a months interesting to the injections and very a months interesting to the injections of Vocabria and Relianthys, injections may be administrated up to 7 days before or after the due and extensive the injection injections of Vocabria and Relianthys, injections may be administrated up to 7 days before or after the prescribing of Vocabria and Relianthys. Injections may be administrated up to 7 days before or after the due and extensive the injection injections of Vocabria and Relianthys. Injections may be administrated up to 7 days before or after the due and extensive the injection injections of Vocabria and Relianthys. Injections may be administrated up to 7 days before or after the due of the reliant the injection injections of Vocabria and Relianthys. Injections may be administrated up to 7 days before or after the the presentation of the presentation injections of Vocabria and Relianthys injections may be administrated up to 7 days before or after the the presentation injections of Vocabria and Relianthys injections may be administrated up to 7 days before or after the the prescribed relianted by the presentation of the

VOCABRIA injection is indicated, in combination with REKAMBYS injection, for the treatment of HIV-1 infection in adults who are virologically suppressed (HIV-1 RNA <50 copies/mL) on a stable antiretroviral regimen without present or

past evidence of viral resistance to, and no prior virological failure with agents of the NNRTI and INI class. I HIV-1=human immunodeficiency virus type 1; INI=integrase inhibitor; NNRTI=non-nucleoside reverse transcriptase inhibitor.





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