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聖保祿醫院
St. Paul's Hospital

NewsLetter 院訊

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Hospital Updates:

- Advances in the Treatment of Hepatitis C: Viekira Pak & Harvoni
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Dr. William Ho
Medical Superintendent

Our Medical Team

When patients come to our hospital, no doubt their number one concern is the doctors they are going to see. Indeed many of us do get a lot of enquiries from friends and relatives: I have such and such symptoms, which doctor would you recommend?

Compared with the public system, the main attractions of private hospital care are really the choice of doctors, immediate access, and a more personalized care environment. In the old days, almost all are Visiting doctors. Over the years however, private hospitals have generally been increasing their number of Resident doctors. The usual model is that of Staff doctor i.e. full time employees with sharing of doctor's fee with the hospital, and taking turns for call duties to provide 24 hour coverage. But in some hospitals, there are also doctors who are non-staff, hence no sharing of doctor's fee, but who practice exclusively there. Still others may be partners of a company or doctor group that provides services for the hospital under a contract. Recently, some hospitals have asked their Staff doctors to become self-employed and deal with their companies instead of individuals.

This multifarious and evolving landscape is shaped by economic, social, and health system forces. It is in the interest of private hospitals to hire their own doctors. Economics is only part of the reason. Teamwork and organizational consideration on quality is another. Many Visiting doctors do contribute their expertise in providing professional advice to the hospital, and work very closely with the multi-disciplinary team. But these are voluntary and out of goodwill, in contrast to Staff doctors who have the responsibility say to organize QA meetings, compile audits, support committees, and work with others in the hospital integrally on a daily basis.

Yet doctors also have their choices. Hence the ultimate model for the individual's engagement depends on concordance of mutual interest. Our longest-serving Staff doctor has worked more than two decades here, versus turnover at 2-5 years for significant others. The latter may have established themselves after a period in the hospital, then accord higher priority to family time and personal freedom. But many still come back frequently as Visiting doctors, actively participate in quality work, and even take up specialty calls.

From the Hospital Management's point of view, engagement of doctors is crucial to providing high quality, patient-centered care with teamwork. For Staff doctors, we will continue to recruit the very best available to us, in terms of knowledge and skills, attitude to patients and other team members, willingness to learn and improve, and culturally fit for our organization. Our monthly Staff Doctor Meeting is an important forum for two-way communication, sharing pitfalls and experiences, solving operational issues, as well as building up team spirit and trust. Indeed, many of our Staff doctors joined us because they heard about the "brotherhood spirit" here.

At the same time, we continue to welcome Visiting doctors who are admitting the bulk of inpatients. As there are over 1,700 on the list, we have a set of credentialing criteria for approving hospital privileges based on individual doctor's training and experience. In view of the complexity of medical care, we have experts in our 11 Clinical Advisory Committees to give advice and decide on applications through peer consensus of the specialty/practice area concerned. As medical care is more than just technical care, Hospital Management will also take into account the applicant's conduct. Ongoing feedback from nursing staff as well as information from disciplinary authorities would be important to our consideration.

Communication with the large number of Visiting doctors is a challenge. We utilize email, Newsletter and verbal communication in the ward through nursing staff as far as possible to promulgate hospital policies and messages. The other way round, I very much welcome and do receive phone calls and emails from Visiting doctors on issues of their concern, which invariably I will revert after due investigation and consideration. We also have professional platforms of the Clinical Advisory Committees and QA meetings for communication. There were indeed instances where concerns raised in these forums led to appropriate changes of hospital policy.

The significant effort spent in such work is just to ensure that patients admitted to St. Paul's Hospital receive safe and appropriate care by competent clinicians, who work well with others in the multi-disciplinary team to provide high quality care. Being a Catholic hospital, we also champion ethical and spiritual care, and take complaints on behavior including charging disputes seriously.

Referring back to the question posed by friends and relatives on which doctor to consult, it illustrates what health economists would call "information asymmetry". The purchaser (patient) does not know what product (services) to purchase by virtue of their lack of adequate medical knowledge, and the complexity of medical specialization/sub-specialization. Patients admitted into our hospital have put their trust in us, as well as in their doctors. To say the least, the hospital bears vicarious liability when something happens and people ask what system has the hospital put in place to ensure things are done properly. The recent trend, which will soon be turned into mandatory requirement, of external accreditation of all private hospitals also brings the issue of clinician credentialing and clinical governance to the forefront.

St. Paul's Hospital will soon be entering a new phase after completion of our hospital redevelopment project. We will certainly continue to work closely with our doctors, whether Staff or Visiting, to offer our very best to patients and the community.

Dr. Lau Wai Ling, Peggy
Head, Health Centre
St Paul's Hospital

Update on Pneumococcal vaccination and Herpes zoster vaccination

Pneumococcal vaccination

Pneumococcal infection is caused by the bacteria Streptococcus pneumoniae.

Pneumococci are commonly found in nose and throat of healthy people and are spread by coughing, sneezing, or contact with respiratory secretions.

Pneumococci can cause a wide range of diseases including mild illness such as sinusitis or otitis media .it may also cause severe or even life-threatening invasive pneumococcal disease (IPD) such as pneumonia, meningitis and sepsis. IPD is more common among young children, elderly and persons with weakened immunity, chronic illness or with cochlear implants. In Hong Kong, the annual incidence of IPD ranged from 1.7 to 2.5 per 100000 from 2007 to 2014. The problem of increasing resistance of the bacterium to antibiotics makes prevention of pneumococcal infections important. As there are over 90 serotypes of pneumococcus, previous infection of a serotype may not confer immunity to other serotypes.

Table 1. Serotypes covered and childhood immunization program for pneumococcal vaccines in HK

Vaccine	Serotypes Covered	Introduction to childhood immunization program in HK
PCV7	4, 6B, 9V, 14, 18C, 19F, 23F	Sept 2009 (Available from 2005)
PCV10	+1, 5, 7F	Oct 2010
PCV13	+3, 6A, 19A	Dec 2011 (Available from 2010)
Pneumococcal polysaccharide vaccine (23vPPV)	1,2,3,4,5,6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19F, 19A, 20, 22F, 23F, 33F	

(Adopted from Centre for Health Protection, Department of Health, HKSAR)

Pneumococcal vaccination is recommended for children under 2 years of age, persons age 65 years or above and persons age between 2 to 64 years with additional high risk conditions such as history of clinical IPD, immunocompromised states, with chronic disease (chronic heart, pulmonary, liver, renal disease, diabetes mellitus) or with cochlear implants.

There are two types of pneumococcal vaccines available in the markets:

- 23-valent pneumococcal polysaccharide vaccine (23vPPV) consists of pneumococcal capsular polysaccharides for 23 pneumococci serotypes.
- Pneumococcal conjugate vaccine (PCV) consists of pneumococcal capsular polysaccharides conjugated to carrier protein. PCV initially marketed as a 7-valent which was later replaced by PCV 13 consisting of antigens against 13 pneumococci serotypes.

Both 23vPPV and PCV13 are safe and effective in preventing invasive pneumococcal diseases (IPD). Recent Clinical studies showed that PCV13 has a better efficacy against non-invasive pneumococcal pneumonia when compared with 23vPPV. PCV13 also has better immunogenicity in infants and toddlers and so it is recommended in this age group. 23vPPV contains 11 additional serotypes and theoretically offers extra protection.

The Scientific Committee on Vaccine Preventable Diseases (SCVPD) of the Centre for Health and Protection of Hong Kong recommends children under 2 years of age to receive PCV under the Hong Kong Childhood Immunisation Programme. The standard regime includes a primary series of 3 doses at 2, 4 and 6 months and a booster dose at 12-15 months.

The recommendation of pneumococcal vaccination for the high-risk individuals 2 to 64 years of age and elders 65years of age or older was updated in December 2014.

For adults 65 years of age and older, SCVPD recommends either a single dose of PCV13 or 23vPPV. For those with additional high risk conditions, revaccination may be considered 5 years after the first dose. It is worth knowing that the Advisory Committee on Immunisation Practices (ACIP) of the Centers for Disease Control and Prevention(CDC), USA, currently recommends that both PCV13 and 23vPPV be given in series to all immnunocompetent adults aged >=65 (PCV13 first followed by 23vPPV 6-12 months apart).

High-risk individuals aged 2-64 years should receive a single dose of PCV13, followed by a single dose of 23vPPV 6-12 months later or at least 2 months later. For those who have already received 23vPPV, PCV13 should be administered at least 1 year later.

Both PCV13 and 23vPPV can be given together with influenza vaccine with different syringe and administered at a different injection site. Local data

shows that dual vaccination can lower the risk of hospitalisation and mortality among old people.

Patients undergoing splenectomy should receive pneumococcal vaccines 2 weeks before the procedure if possible. Pneumococcal vaccines should not be given during chemotherapy or radiotherapy for cancer.

History of severe allergic reaction following the prior pneumococcal vaccine or to the vaccine ingredient is a contraindication to further doses of vaccine. It is safe to receive the vaccine during minor illness such as upper respiratory tract infections. The safety of pneumococcal vaccines during pregnancy is not known.

Table 2. Recommended use of PCV 13 and 23vPPV for personal protection in high-risk individuals 2 to 64 years of age and elders 65 years of age older

Risk Groups	Pneumococcal Vaccine
High risk individuals aged 2 to 64 years who have not received any pneumococcal vaccines	One dose of PCV13 followed by one dose of 23vPPV at least 2 months after the previous PCV13 vaccination.
High risk individuals aged 2 to 64 years who have received 23vPPV	Single dose of PCV13 at least one year after previous 23vPPV vaccination. Additional dose of 23vPPV is not recommended.
High risk individuals aged 2 to 64 years who have received PCV13	Single dose of 23vPPV at least 2 months after previous PCV13 vaccination. Additional dose of PCV13 is not recommended.
Elders aged 65 years and above	Either a single dose of PCVl3 or a single dose of 23vPPV. For those with additional high risk conditions, one-time revaccination may be considered 5 years after the first dose, depending on clinical judgment.

(Adopted from Centre for Health Protection, Department of Health, HKSAR)

Herpes zoster (shingles) vaccine

Herpes zoster is a common painful neurocutaneous syndrome resulting from reactivation of varicella-zoster virus (VZV) that remained latent in sensory ganglia after primary VZV infection (chickenpox).

Herpes zoster (HZ) is characterized by a painful, unilateral vesicular eruption, which usually occurs in a restricted dermatomal distribution. Frequency and severity of HZ and its most common debilitating complication, postherpetic neuralgia (PHN), increase with age. Age-related increase in disease correlates closely with the decline in VZV-specific T cell-mediated immunity that accompanies aging.

Zoster vaccinations reduce the risk of developing shingles by 51% and PHN by 67% based on a large study of more than 38000 adults aged 60 years or older. Research suggests that protection from vaccine lasts for about 5 years. The duration of protection beyond 5 years is uncertain and the need for revaccination is not clear.

Zoster vaccine has been used since 2006. It is a live vaccine given as a single injection subcutaneously or intramuscularly. The United States Advisory Committee on Immunization Practices (ACIP) recommends the use of zoster vaccine for people aged 60 years or older. NHS of UK recommends routine use of zoster vaccine in age group 70 to 79. Based on a large study showing that the vaccine reduced the risk of zoster by approximately 70%, the United States FDA has expanded the age indication of the Zoster vaccine to include people 50-59 years old. However, adults vaccinated before age 60 years might not be protected later in life when the risk for shingles and its complications are greatest. Doctors consideringzoster vaccine for certain people 50-59 years old should discuss the risks and benefits of vaccination with their patients.

Persons with previous history of shingles can still receive zoster vaccine to help prevent future occurrences of the disease.

Contraindications for zoster vaccination include history of severe reaction to gelatin or neomycin, immunocomprimised conditions and women who are or might be pregnant since it is a live attenuated vaccine.

The zoster vaccine is generally well tolerated. The most common side effect is pain, redness, swelling or itching at the injection site. Although some people will develop shingles despite vaccination, the vaccine may reduce the severity and duration of it. There is no documentation of a person getting chickenpox from someone who has received zoster vaccine.

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Advances in the Treatment of Hepatitis C: Viekira Pak & Harvoni

SPH Pharmacy Department

Hepatitis C therapy is undergoing revolution in recent years. Until 2011, the standard-of-care (SOC) treatment for chronic hepatitis C virus (HCV) infection was the combination of weekly pegylated interferon-alpha (pegIFNα) and daily ribavirin (RBV) for 48 weeks. This dual pegIFN/RBV therapy treats approximately half of the patients by suppressing the HCV load to non-detectable level. However, the dual therapy caused frequent and sometimes life-threatening adverse reactions such as neutropenia and thrombocytopenia, which often led to premature discontinuation of therapy. Patients who have resistance to the dual therapy or who have discontinued therapy prematurely have little other choices in treatment. Today, there are new and promising antiviral drugs available for prescribers and patients. These newer oral agents, called direct-acting antivirals (DAAs), provide more effective, safer and better-tolerated interferon-free regimens for treating HCV infection. In 2015, two innovative pharmaceutical products combining multiple DAAs were launched in Hong Kong. How do they work and how effective are they? Let's review these two products.

Viekira Pak (Ombitasvir, Paritaprevir, Ritonavir tablets; Dasabuvir tablets)

Viekira Pak is a combination product indicated for treatment of chronic HCV genotype 1 (HCV GT1) infection, including patients with compensated cirrhosis. Each pack contains 2 tablets of dasabuvir 250mg and 2 combination tablets (each fixed-dose tablet contains ombitasvir 12.5mg/paritaprevir 75mg/ritonavir 50mg) (see Image 1). It is usually prescribed together with ribavarin for HCV treatment. The product is made up of a combination of 3 DAAs – dasabuvir, ombitasvir and paritaprevir, which target different stages within the HCV life cycle to eradicate the virus. Dasabuvir belongs to a group of agents called non-nucleoside NS5B RNA polymerase inhibitors and it inhibits HCV replication through blocking the catalytic function of the polymerase enzyme for viral replication. Ombitasvir is an HCV NS5A protease inhibitor which binds to domain 1 of the NS5A protein and blocks its ability to regulate HCV replication within the replication complex and virion assembly. Paritaprevir is another protease inhibitor which binds into the catalytic site of the NS3/4A protease and blocks post-translational processing of the viral polyprotein to prevent the release of functional proteins. Ritonavir is a HIV protease inhibitor which has no activity against HCV. Instead, it is a potent inhibitor of cytochrome P450 3A4 enzyme and is used as a booster for paritaprevir levels as the NS3/4A inhibitor is mainly metabolized via CYP3A4. Viekira Pak is one of the few drugs which received the U.S. Food and Drug Administration (FDA) breakthrough therapy designation due to its distinct mechanisms of action and potentially substantial treatment advantages over existing therapies.

Image 1 Viekira Pak

Viekira Pak has demonstrated excellent efficacy and safety for treating patients with HCV GT1 infection. In the randomized clinical trials performed on HCV GT1 infected patients without cirrhosis, the SAPPHIRE and PEARL studies, a 12-week course of Viekira Pak with RBV showed at least 95% sustained virologic response (i.e. rates of infection cure) 12 weeks after the end of treatment (SVR12) in patients with HCV GT1a infection and 97% SVR12 in those with HCV GT1b infection, no matter whether the patients were treatment-naïve or treatment-experienced. For the patients with compensated cirrhosis, the results of TURQUOISE-II trial demonstrated 96% SVR12 in patients treated with Viekira Pak plus RBV in 24-week courses.

The most common adverse effects (> 5%) with using Viekira Pak include nausea, pruritus and insomnia. When ribavirin is added, fatigue, other skin reactions and asthenia are also commonly reported. Another adverse effect of the drugs (with or without ribavirin) is the elevation of ALT to greater than 5 times the upper limit of normal, which occurred in about 1% of patients in the clinical trials. The ALT elevation is

significantly more frequent in females using medications containing ethinyl estradiol such as combined oral contraceptives (COCs) and drugs for hormone replacement therapy. Therefore, these medications should be discontinued before starting Viekira Pak and alternative methods of contraception are recommended for women taking COCs.

In October 2015, FDA released a Drug Safety Communication warning that Viekira Pak can cause serious liver injury mostly in patients with underlying advanced liver disease. Thus, it is recommended that hepatic laboratory testing should be closely monitored during the initial 4 weeks of therapy. Also, patients are to be reminded to consult healthcare professionals immediately if symptoms of liver injury or worsening of liver disease appear (such as fatigue, weakness, loss of appetite, ascites, jaundice and discolored faeces).

(Please refer to Table 1 for a brief summary of the prescribing information of Viekira Pak)

Harvoni (Ledipasvir, Sofosbuvir tablets)

Harvoni is another combination product approved for treatment of chronic HCV infection genotype 1, 4, 5 or 6. It contains ledipasvir 90mg and sofosbuvir 400mg as a fixed dose combination tablet. Ledipasvir is an NS5A inhibitor which works similarly as ombitasvir. The other active ingredient, sofosbuvir, is a nucleotide analogue NS5B polymerase inhibitor which inhibits HCV RNA replication. Harvoni is also a breakthrough therapy designated drug approved by the FDA due to its conspicuous advantages over existing therapies.

Harvoni has demonstrated high efficacy and safety in the treatment of HCV infection. In the treatment of HCV GT1 infection, use of the drug in the ION studies showed that a 12-week course of Harvoni resulted in 95 – 98% SVR12 in treatment-naïve patients with or without cirrhosis and a 24-week course resulted in 99% SVR12 in patients with or without cirrhosis who failed prior therapy. Addition of ribavirin was not shown to increase response rates in the ION studies. Meanwhile, the recent double-blind placebo-controlled SIRIUS trial has shown that Harvoni plus ribavirin for 12 weeks and Harvoni alone for 24 weeks provided similarly high SVR12 (96% v.s. 97%) in treatment-experienced patients with HCV GT1 and compensated cirrhosis. Therefore, ribavirin may be used together with Harvoni for a shorter course of treatment in treatment-experienced patients with cirrhosis and this shorter regimen may be useful for patients if longer-term treatment is undesirable or not tolerated. In the treatment of HCV GT4 and GT5 infections, the open-label study, Study 1119, has shown that a 12-week course of Harvoni provided overall 93% SVR12 in treatment-naïve and treatment-experienced patients with HCV GT4 or GT5 infections. Another open-label study, ELECTRON-2 trial, has also demonstrated excellent efficacy of Harvoni in treating HCV GT6 infection. An overall 96% SVR12 was observed in treatment-naïve and treatment-experienced patients, with or without cirrhosis. Harvoni is generally well tolerated, with fatigue, headache and asthenia as the most commonly reported adverse effects.

There is no absolute contraindication to Harvoni. However, it should be noted that both ledipasvir and sofosbuvir are substrates for the drug transporter P-glycoprotein (P-gp). The concomitant administration of Harvoni and P-gp inducers, such as rifampicin and St. John's Wort, may significantly reduce the plasma level as well as the therapeutic effect of Harvoni. There are also reports of severe symptomatic bradycardia when amiodarone and Harvoni were coadministered. ***(Please refer to Table 1 for a brief summary of the prescribing information of Harvoni)***

Choice of DAAs

Deciding which regimen is optimal for patients with chronic HCV infection requires consideration of several key baseline parameters such as genotype subtype, prior treatment history and presence of cirrhosis. While both Viekira Pak and Harvoni are associated with promising efficacy, safety and tolerability during the clinical trials, currently there is no data on head-to-head comparison between these two products. Moreover, with the limited outcomes from clinical trials, long term use and adverse effects are not fully understood. Which regimen is optimal could be predominantly dependent on patient characteristics and preferences and physician experience. The joint American Association for the Study of Liver Diseases (AASLD)/Infectious Diseases Society of America (IDSA) HCV Guidance recommends both combination products for the treatment of HCV GT1a and GT1b infections (Class I Recommendation, Level A Evidence) and does not mention any preference for one over another. The issue of drug-drug interactions and treatment adherence needs to be considered as well. Prescribers are reminded to keep pace with the latest guidance as the optimal regimen for each subgroup will change when more data, new DAAs and regimens become available.

Since these newer oral DAAs are now available in the market, the SOC treatment for HCV infection has changed significantly. In comparison with interferon, Viekira Pak and Harvoni have higher efficacy, lower toxicity, require a shorter course of therapy and less monitoring. Currently there are many DAAs under development and clinical trials. Hopefully when more new drugs are available in the market, patients with HCV infection can receive the most appropriate and tolerable treatment.

Viekira Pak was approved for use by SPH's Drug and Therapeutics Committee (DTC) in September 2015 and is available only upon request; however, a 12-weeks course of therapy costs approximately a half million Hong Kong dollars. Harvoni is currently registered in Hong Kong but is not available at SPH.

Table 1 Summary of prescribing information for Viekira Pak and Harvoni

Brand Name	Viekira Pak *(available at SPH per request)*	Harvoni *(currently not available at SPH)*
Ingredients	Ombitasvir/Paritaprevir/Ritonavir 12.5/75/50 mg tablets Dasabuvir 250 mg tablets	Ledipasvir/Sofosbuvir 90/400 mg tablets
Dosing	Two Ombitasvir/Paritaprevir/Ritonavir tablets once daily One dasabuvir tablet twice daily *Plus* weight-based ribavirin (except GT1b without cirrhosis)	One Ledipasvir/Sofosbuvir tablets once daily *Plus* weight-based ribavirin (only for GT1 with cirrhosis)
Duration	GT1a without cirrhosis: 12 weeks GT1a with cirrhosis: 24 weeks GT1b without cirrhosis: 12 weeks GT1b with cirrhosis: 12 weeks	GT1: Treatment-naïve with or without cirrhosis: 12 weeks Treatment-experienced without cirrhosis: 12 weeks Treatment-experienced with cirrhosis: 24 weeks (Harvoni only) or 12 weeks (Harvoni + ribavirin) GT4/5/6: Treatment-naïve and treatment-experienced, with or without cirrhosis: 12 weeks
Renal adjustment	No dosage adjustment Ribavirin needs dosage adjustment	No dosage adjustment for mild or moderate impairment No dosage recommendation for severe impairment or end-stage renal disease
Hepatic adjustment	Not recommended if Child-Pugh B Contraindicated if Child-Pugh C	No dosage adjustment
Major drug interactions	α_1-adrenoreceptor antagonist - alfuzosin Anticonvulsants - carbamazepine, phenytoin Antihyperlipidemic agent - gemfibrozil Antimycobacterial - rifampicin Ergot derivatives - ergotamine, dihydroergotamine HMG-CoA reductase inhibitor - lovastatin, simvastatin Phosphodiesterase-5 inhibitor - sildenifil (Revato) Sedatives/hypnotics – triazolam, midazolam	Acid reducing agents - antacids, H_2RA, PPIs Antiarrhythmics - amiodarone, digoxin Anticonvulsants - carbamazepine, phenytoin Antimycobacterials - rifabutin, rifampicin, rifapentine HMG-CoA reductase inhibitors - rosuvastatin HIV antiretrovirals - efavirenz, emtricitabine HCV direct acting antivirals - simeprevir Herbal supplements - St. John's Wort

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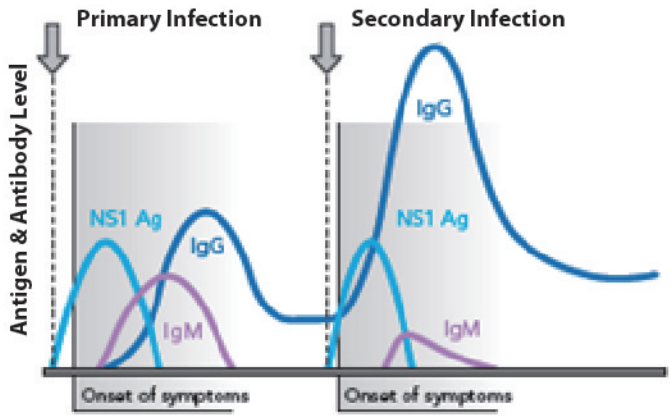
New Dengue fever screening kit

SPH Pathology Department

Introduction:

Dengue has emerged as a worldwide problem only since the 1950s and is a statutory notifiable disease in Hong Kong. As many as 400 million people are infected yearly (1) and in year 2015 Taiwan has a Dengue fever outbreak.

There are not yet any vaccines to prevent infection with dengue virus and the most effective protective measures are those that avoid mosquito bites. Once infected by the virus, early recognition and prompt supportive treatment can substantially lower the risk of medical complications and death.



NS1 Antigen
Common to all dengue serotypes and can be used to detect either primary or secondary infections.

Primary Infection
IgM antibodies appear approximately 5 days after the onset of symptoms, followed by IgG at about 14 days post-onset. IgM levels peak after 1 to 2 weeks, but may be elevated for 2 to 3 months after illness.

Secondary Infection
IgF rised rapidly within 1 to 2 days of symptoms and often exceeds previous levels; IgM may not appear for up to 20 days and may be undetectable in 20-30% of secondary infections.

NS1 antigen

NS1 antigen test (Platelia Dengue nonstructural protein 1 Ag assay) is a test for dengue introduced in 2006. It allows rapid detection on the first day of fever, before antibodies appear some 5 or more days late (2).

Detection of specific IgM antibodies for early diagnosis of Dengue fever infection is important for clinical needs. However, IgM antibodies develop only after 4 to 5 days of infection. Other methods for early diagnosis include virus isolation and reverse transcriptase polymerase chain reaction (RT-PCR) which need a sophisticated laboratory. NS1 antigen gives a good sensitivity of 71-100%, while testing for dengue IgM has a sensitivity of only 0% to 50% in this period (3, 4).

Laboratory Guidance and Diagnostic Testing

Centers for Disease Control and Prevention suggested detecting the presence of NS1 antigen in early Dengue infection because of its high sensitivity. The NS1 assay may also be useful for differential diagnosis between flaviviruses because of the specificity of the assay (5). According to the American society for Microbiology (6), the new NS1 antigen test kit gives the highest specificity compared to other brands.

The Department of Pathology right now uses the SD Dengue NS1 + Antibody Combo kit and the result can be reported within 4 hours. This new screening kit has a higher sensitivity in detecting early infection and higher specificity to rule out the non-specific circulating flaviviruses.

	Sensitivity	Specificity
NS1 antigen	92.4-98.8%	98.3-98.4%
Dengue IgG/IgM	86.0-94.2%	82.8-96.4%

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New Drugs available at SPH

The following new drugs were approved in the Drug and Therapeutics Committee (DTC) Meeting in March 2016:

Approved drugs	Indication(s)	Usual dosage	Note
Praxbind (idarucizumab) injection	In patients treated with Pradaxa when reversal of the anticoagulant effects of Pradaxa is needed: - For emergency surgery/urgent procedure - In life-threatening or uncontrolled bleeding	Intravenous administration at the dose of 5g as 2 separate vials each containing 2.5g/50mL Praxbind. Can be given as two consecutive infusions or bolus injection by injecting both vials consecutively one after another syringe.	Currently Praxbind is an unregistered pharmaceutical product in Hong Kong and it is ordered on a named patient basis only. Please contact Pharmacy Department if you would like to prescribe Praxbind.
Jardiance (empagliflozin) tablet	Treatment of type 2 diabetes mellitus for the improvement of glycaemic control in adults as monotherapy or add-on combination therapy (including insulin).	Starting dose of 10mg daily; can increase to 25mg daily if tighter glycaemic control is needed.	

CME ANNOUNCEMENT

聖保祿醫院
St. Paul's Hospital

CME/CPD/CNE Programme 2016

Update on Evolving Role of Nutrition Therapy for our patients

Speakers: **Prof. Jonathan M. Asprer**
Professor, Department of Surgery, University of Santo Tomas Hospital, Manila, Philippines
Ms Silvia Kwan
Registered Dietitian (Canada), Accredited Dietitian (HKDA)

Chairman: **Dr. Ng Wing Chiu, Lawrence**
Staff Consultant General Surgeon, St. Paul's Hospital

Date: **10 May 2016 (Tuesday)**

Time:

7:00 pm – 7:30 pm	Reception (light refreshment provided)
7:30 pm – 8:15 pm	"Update on Evolving Role of Nutrition Therapy for our patients" by Prof. Jonathan M. Asprer
8:15 pm – 8:45 pm	"Malnutrition and Nutrition Support" by Ms Silvia Kwan
8:45 pm – 9:00 pm	Q & A Session

Venue: **Conference Room, 2/F, St. Paul's Convent**
(Entrance via St. Paul's Hospital, No.2, Eastern Hospital Road, Causeway Bay)

Registration & Enquiry:
(First-come-first-serve)

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CME / CPD/ CNE Accreditation for all Colleges (Pending approval)

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2016年聖保祿醫院週年退省 (15-03-2016)

在慈幼會修院院長吳多祿神父帶領下，聖保祿醫院的週年退省活動已於二零一六年三月十五日圓滿結束。退省地點為筲箕灣慈幼會修院，那兒地處高丘，環境清幽，實為退省的理想地方。退省於九時半正式開始，參加人數約有五十人，除了修女、現職醫護人員及部門員工外，參加者還包括過往曾在本院服務的職員。他們對醫院懷有深厚的感情，經常參與和支持醫院的活動。

當天退省內容十分豐富，有神父講道、恭唸玫瑰經、彌撒、拜苦路、小組討論分享等；各人都積極參與，全心投入祈禱氣氛中。適逢今年是天主教的「慈悲特殊禧年」，我們便以「如同天父滿懷慈悲」為退省主題。吳神父引用教宗及各聖人賢士的言行及榜樣，鼓勵我們要努力培育慈悲的精神與涵養。吳神父更分享了他的親身經驗，說他曾用了很長的時間來苦練親切的笑容、柔和的態度，讓接觸他的人能體會天父的溫良、包容與忍耐。在午間的小組討論，參加者也各抒己見，互相分享如何在生活中實踐慈悲，如多花時間在家人身上，珍惜親子時間；投入義工服務，不參與是非；多關心弱小、關注生態環保等社會問題。靈修方面：勤辦修和聖事，恆心祈禱，效法良善心謙的耶穌等等。

在退省活動結束前，張杜見修女也透過個人經驗的分享，給予我們一點心得，好使我們在日常生活中能實踐慈悲，彰顯天父慈悲的面貌。向神父致謝後，張修女送贈各人顯靈聖牌及書籤，以作紀念。希望退省活動的參加者能有所得著，善渡四旬期，以迎接復活節的來臨。


午餐吃得津津有味


分享個人心得


吳多祿神父講道


在彌撒中...
大家靜心聆聽聖言


參加者一同拜苦路


午餐前來個大合照

APPOINTMENT
Of New General Manager

Mr. Lee Yip Hung, Gilbert
General Manager
St Paul's Hospital

Mr. Gilbert Lee has been appointed as the General Manager of St. Paul's Hospital with effective on 17th March 2016. Mr. Lee embarked his career in St. Paul's Hospital as the Department Manager of Diagnostic and Interventional Radiology Department since June 2010. He has over 30 years of extensive experience of clinical and administrative management in both public and private healthcare sectors. We are looking forward to his close collaboration with us to lead the Hospital into a new era in pursuit of excellence in the provision of service to our clients.

Personal Contact Details Update

To ensure you receive important updates from St. Paul's Hospital, Please complete and return the following form to us (Email: vmo@stpaul.org.hk; Fax: 2837 5241) if you have updated or changed any of your previous information. Information collected will be used for Hospital communications only. Please note that it takes about ten working days to update your contact information in our system.

Personal Particulars

Name of Physician: (IN FULL NAME)

English: _____ Chinese: _____ Physician Code: _____

Correspondence (Please write down changed items only)

Address:

Phone: _____ Pager: _____ Mobile: _____

Fax: _____ Email: _____ Effective Date: _____

Others: _____

Signature: _____

Please return the completed form by

1) Fax: 2837 5241 2) Email: vmo@stpaul.org.hk

3) Post: 2 Eastern Hospital Road, Causeway Bay, Hong Kong (Attn: Hospital Management Department)

Thank you!