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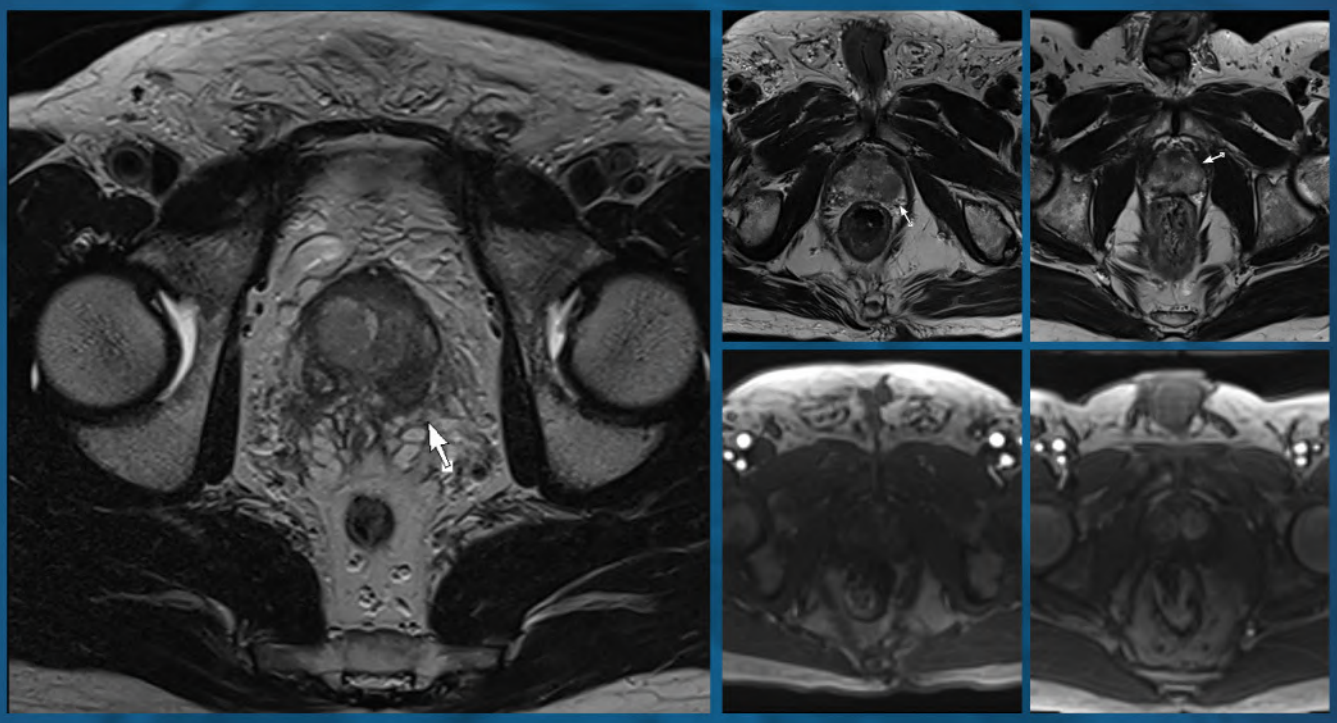
修女的話
疫情縱使無退減 愛與關懷可寄盼



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Sodium-glucose Cotransporter-2 (SGLT2) Inhibitors in the Treatment of Heart Failure with Reduced Ejection Fraction (HFrEF)

聖保祿醫院
St. Paul's Hospital

修女的話

疫情縱使無退減　愛與關懷可寄盼
在此我先祝賀各位龍馬精神、身心健康、主寵滿溢!

新一年，新的開始，我想大家可能有不少熱切期待的事想計劃去做。跟親人周遊列國？和好友看一齣舞台劇？還是只想一個人在百貨公司購物一番？這一切一切，現在就只能暫時放在我們的願望清單(wishlist)上，因為我們又要繼續努力抗疫，守衛生，減少外出。多姿多采的生活跟我們又要告別一會兒，但留下來的時間，可以做甚麼呢？

香港教區新主教周守仁在二零二一年的聖誕文告中提到「厄瑪奴耳—「天主與我們同在」（瑪一23），那就是，天主直接介入人類歷史當中，讓天主子降生成人，與我們同行，即使今天我們再不能親眼目睹祂的肉身。」現代人生活繁忙，除了日復一日，為生活打拼，餘下的時間就是想想到那裡消遣遊樂，尋求肉身的歡愉和滿足，卻有時忽略了跟家人相處的時間。人生只有短短數十載，在有限的時間，不妨多點照顧、愛護你的父母，畢竟他們把你帶到這個世界，也曾用雙手帶著你一步一步地往前走；對於和你一起生活的伴侶，不如花點心思每天給他們在家做一頓晚餐，簡簡單單回顧美麗的生活點滴，因為伴侶就是生活上的扶持，他以包容和愛，跟你一起走過人生的高低起跌；至於你的子女，請以愛和陪伴去填滿他們的童年吧！孩子只有感受到你的付出，才會把這份愛延續至下一代，這比所有的物質和奢侈品來得更實在。那種既親近又緊密的關係，就如天主與人之間的關係，處於幽谷時，人可以倚靠天主；攀上高山峻嶺時，我們也是偕同天主結伴前行。我深信祂從來沒有離棄過我們，我們應當效法天主，花時間去陪伴我們所愛的人。

農曆新年又到了，期盼疫情的離去，亦期待與家人好友的相聚。就讓我們成為天主的傳訊者，以愛和希望，融化身邊有需要的人，把這行動轉為恆常的活動，多點慰問和關顧愛你的近人吧！

感謝大家過去一年辛勤的工作。

在此我再次祝福大家新的一年身體健康，甜蜜幸福，主佑各位！

張柱見修女

MESSAGE
From The Chief Medical Executive

Dr. William Ho
Chief Medical Executive

Battling the Pandemic One Day at a Time

At the time of writing, Hong Kong just reported a record 4,285 new Covid cases, with 7,000 more preliminary positive infections identified. When will it peak out and at what horrific figure cannot be known until after the fact. President Xi has spoken out, to emphasize that the Hong Kong Government holds "main responsibility" to control the situation, while pledging full support from the country. It remains the case that we have had two years already to learn, not only from previous waves locally but also the myriads of approaches adopted across the world, their successes and failures. Even for different parts of the Mainland, the Wuhan experience was certainly vastly different from the Shanghai experience in controlling the epidemic. It therefore begs the question on what contingency planning under different scenarios, all predictable ones, had been done and executed all this time.

Be that as it may, we at St. Paul's will take things one day at a time, aiming to nimbly respond to the ever-changing situation. It means almost daily situation appraisal and frequent Emergency Task Force meetings to set and revise hospital policies as deemed fit. First and foremost is to keep the hospital safe, thus all the Covid screening for admitted patients, and strict infection control practices among staff and visitors. Once a member of staff tests positive, his/her colleagues who are close contacts will have to observe home quarantine for 2 weeks even when there is no transmission. This can easily lead to severe drain of staff during a time when there is shortage in many ranks. We had to temporarily cut evening service in the OPD and reduce bookings for the cardiac catheterization laboratory just for this reason.

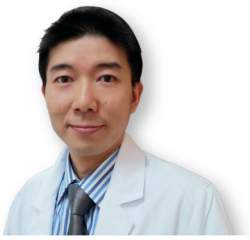
Given the numerous invisible transmission chains lurking in the community these days, it's inevitable that staff testing positive will pop up now and then. If all staff had been on PPE all the time, there should be zero "close contacts". But one loophole is when they have to eat together at meal breaks with masks off. Hence we have greatly spaced out tables in the hospital canteen, and strictly implement recording of in/out time and table number by diners. This will enable traceability and minimize "close contact" to one other at most. Everybody is reminded to eat fast, remain silent while eating, and quit the canteen or staff pantry quickly.

Hitherto, we have struck a reasonably good balance between risks and restrictions. Services can be maintained, visiting hours not over-restrictive, and admission hurdles generally acceptable. No outbreak has occurred in the hospital despite occasions of patients or staff tested positive. Staff vaccination rate approaches 98%, and for visiting doctors, virtually 100%. The rest will have to demonstrate negative PCR tests once every 3 days. Stricter measures on visitor will soon follow.

Let's pray to Almighty God that we will see the end of the tunnel in the not too distant future, and everybody stays safe!

MEDICAL
ARTICLE

Dr. Chan Kam Wai
Head of Radiology Department
Staff Consultant in Radiology



MRI Prostate with Prostate Imaging-Reporting and Data System (PI-RADS)

According to the Hong Kong Cancer Registry, prostate cancer (PCa) is the 3rd commonest malignancy in Hong Kong among men.

Diagnosis of PCa has traditionally relied on prostate-specific antigen (PSA) levels, digital rectal examination (DRE), and systematic transrectal ultrasound (TRUS) - guided biopsy; however, there is increasing evidence that the pre-biopsy multiparametric (mp) magnetic resonance imaging (MRI) outperforms systematic TRUS-guided biopsy and can lead to an increased detection of clinically significant PCa whilst at the same time reducing overdiagnosis of clinically insignificant cancer.

As a result, there has been a steady increase in the use of mpMRI, and particularly pre-biopsy mpMRI, which is now being performed in up to 75% of men with suspicion of PCa in the UK.

Given the central role of mpMRI in PCa management pathway, imaging of the highest quality is essential.

The success of the technique is heavily dependent on high-quality image acquisition, interpretation and report communication. Thus, Prostate Imaging-Reporting and Data System (PI-RADS) is developed. Numerous studies have validated the approach, but the widespread adoption of PI-RADS study has also highlighted inconsistencies and limitations, particularly relating to interobserver variability for evaluation of the transition zone. Thus, revision of PI-RADS is required from version 1 in 2012, version 2 in 2016 and most recent released version 2.1 which was released in 2019.

In 2020, 34 patients with both prostatic biopsy and pre-biopsy mpMRI prostate were performed in St. Paul's Hospital. Therefore, we conduct an audit to review the correlation between mpMRI prostate and result of prostatic biopsy.

28 out of 34 patients had both systemic and target/fusion biopsies done and 6 out of 34 patients had systemic biopsy only.

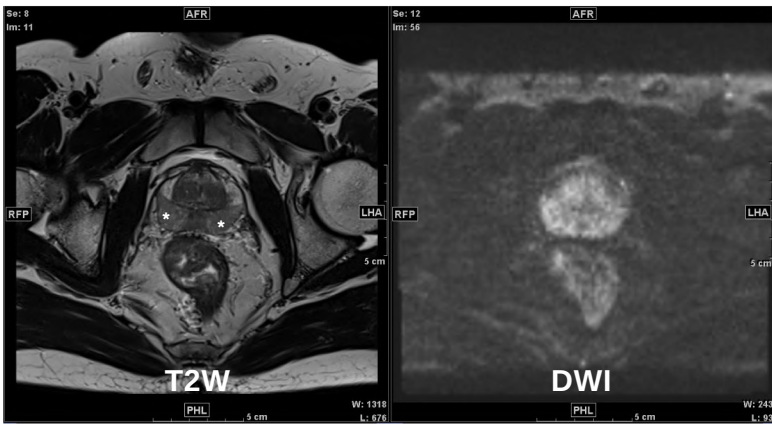
The biopsy result & prostate zonal involvement in MRI are summarised as follows:

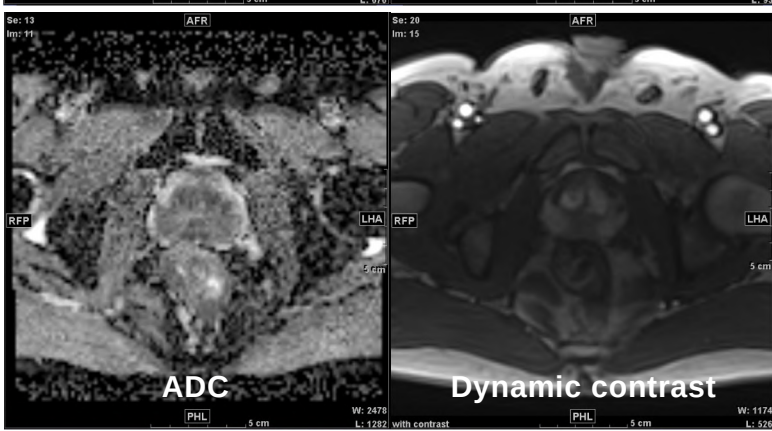
	PZ Only	TZ Only	Both TZ & PZ/CZ	CZ Only
All Bx –ve	1	4	14	1
FBx +ve Only	0	0	2	0
Both Bx +ve	2	0	5	0
Sys Bx +ve Only	0	0	1	0
Sys Bx +ve without FBx	1	0	3	0

PZ: Peripheral zone
TZ: Transition zone
CZ: Central zone

FBx: Fusion biopsy
Sys Bx: Systemic biopsy

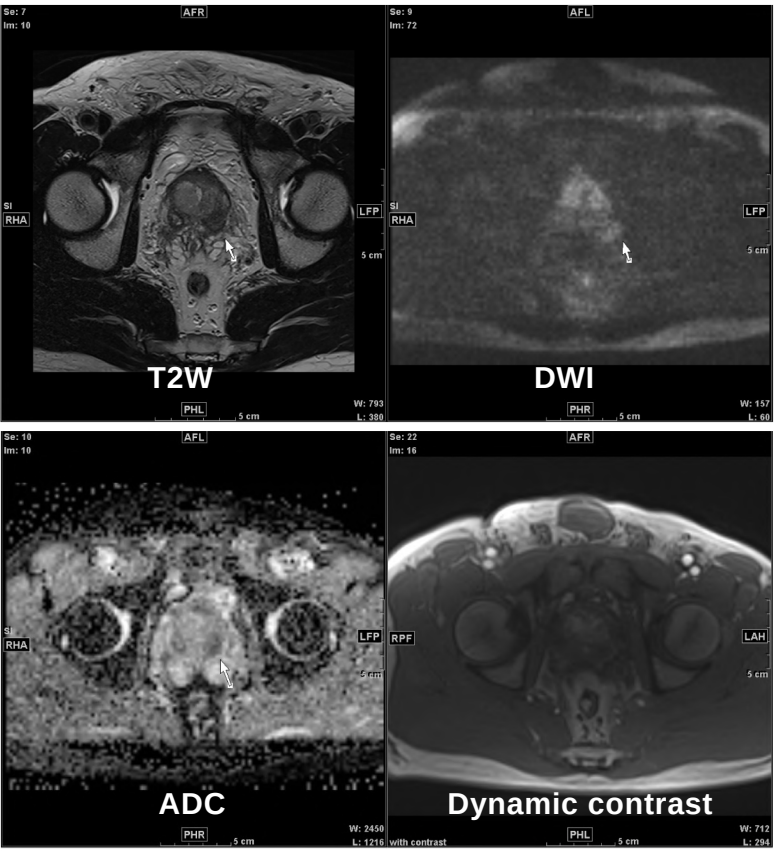
The following is the image of the patients with negative biopsy





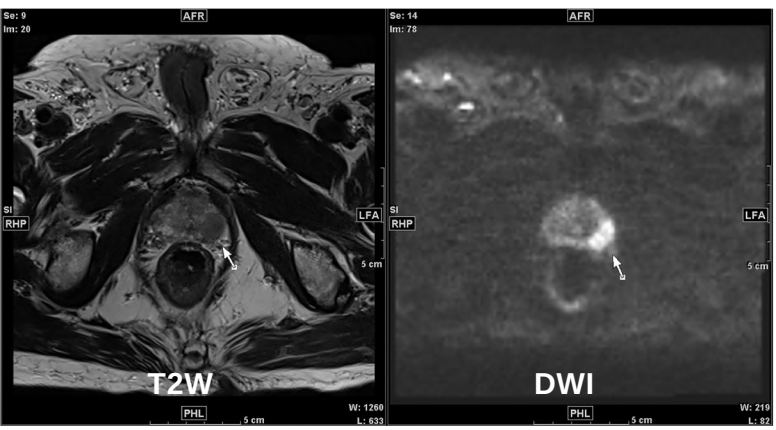
The MRI revealed geographic T2 hypointense areas at bilateral PZs are only moderately ADC hypointense and initially graded as PI-RADS 3 (*). Apparent early contrast enhancement is noted in dynamic scan. Thus, the lesion is upgraded to PI-RADS 4. Final biopsy is negative.

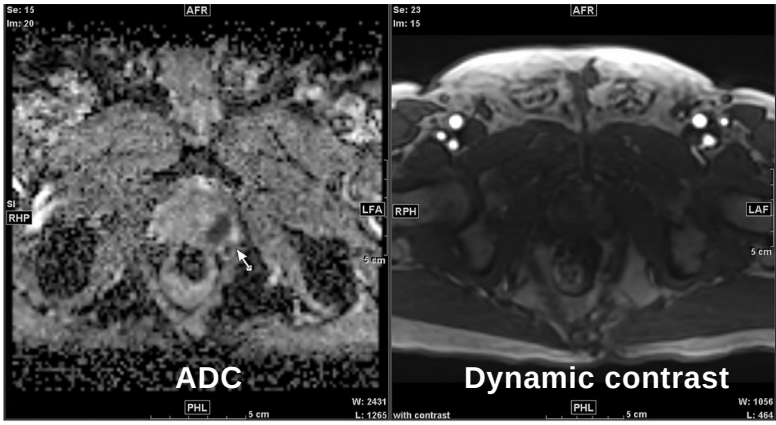
Another patient with negative biopsy with CZ involvement only in MRI



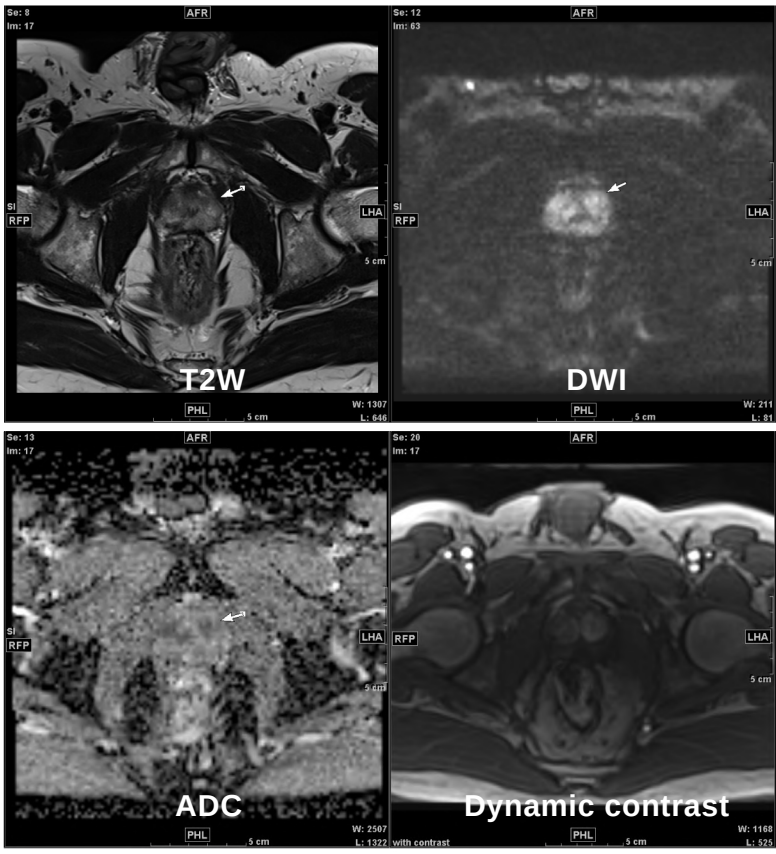
The MRI revealed lenticular non-circumscribed homogeneous T2 hypointense lesion with moderately ADC hypointense signal & mild to moderately DWI hyperintense signal, at the left CZ of the base of prostate gland (arrow) without early enhancement. The nodule is graded as PIRADS 4. Final biopsy is negative. CZ is one of well known normal anatomic structure that may be mistaken for tumor [1,2].

The following images are patients with positive biopsy findings.





MRI revealed left PI-RADS 5 lesions from base to apex. Smaller right PI-RAD 4 lesion at right PZpl is also found in MRI (not shown). Multiple biopsies are positive at both sides and are more extensive at left lobe (Gleason scores from 3+3 to 4+4).



MRI reveal at PI-RADS 3 nodule at left TZ at mid/base of prostate (arrow). Only fusion/target biopsy at this PI-RADS 3 nodule is positive (Gleason score 3+3). All other biopsies are negative.

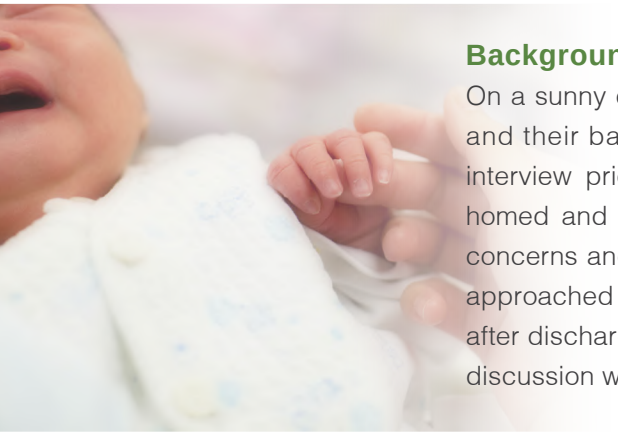
References:

1. AJR 2014, 202: 109 -120
2. Hong Kong J Radiol. 2018;21:280-91

Ms Ip Sek Lan
RN, IBCLC, Trainer (WHO BF course)

Obstacles faced by private hospital in COVID – 19 situations

SPH Nursery Department



Background

On a sunny day in April 2021, I set foot in nursery and looked for my clients—mothers and their babies. As a part-time lactation consultant in a private hospital, I put my interview priorities to those who will soon be discharged. These mothers would be homed and take care of the babies by themselves. It is imperative to address their concerns and empower them with knowledge, particularly on babies' feeding. Before I approached my clients, my colleagues told me that client Ms A refused to breastfeed after discharge, as she complained her baby boy was not feeding well. Despite lengthy discussion with my colleague, client A was still reluctant for breastfeeding.

Case history

Ms A was a young, first-time mother who gave birth to a baby boy at 38th weeks of gestation three days ago. She opted for direct breastfeeding on day one and learned positioning of the baby. Latching on was successful. Ms A's feeding techniques were satisfactory, with baby's deep suckling seen. However, Ms. A reckon that her milk production was insufficient, as her breast was soft. With the query in mind, Ms A tried to express breastmilk through pump and hand expression, which yielded only drops. She became frustrated and started to question how much the baby would have gotten from previous breast-feeding. She was upset and believed that her supply was inadequate, or even none. As a result, Ms A requested breastmilk substitute as a supplement to her baby.

It is vital to address milk supply issue, before considering additional supplements for the baby, as would halt the baby from natural breastmilk feeding, leading to a vicious cycle of depending on milk supplements.

I went through the input/output chart thoroughly. It revealed a satisfactory output from the mother.

As it was the first time I saw Ms A, I asked her regarding the baby's feeding and listened to her side of the story. She confessed that she had increasing frustration over the past three days, as milk output seemed highly insufficient through hand expression. She was not convinced her baby's intake was sufficient solely by the evidence of satisfactory suckling.

Before the baby was born, Ms A worked as hard as she could, since she was concerned about being sacked due to the outbreak of Coronavirus. Facing a stagnating economy, Ms A was under tremendous stress. She was also worried that clinic consultation might poses risk of being infected by the virus. Therefore she turned to online platform and searched for feeding related information in online forums. She noted some of the mothers shared that milk supply would be adequate till milk come in.

A systematic review and meta-analysis on educational and supportive intervention for primiparous women on breast-feeding (2021) (1) stated that both antenatal and postnatal breastfeeding education are effective to increase the level of breastfeeding self-efficacy and promote exclusive breastfeeding rate at <=2M and 6 months. It was supported by Araban et al. (2018), which illustrated that theory-based intervention in the forms of direct face-to-face group antenatal education, individual coaching and post-natal telephone follow-ups could increase mothers' knowledge, which in turn help them to react positively with challenges, such as perceived insufficient breastmilk. However, during the coronavirus outbreak, all the antenatal workshops and peer group gatherings were withheld. Information that was solely obtained from the online forums and chat room could lead to misconceptions for mothers. The crisis was not only involving women who had delivered during the COVID-19 outbreak, but also those who were pregnant during this period.

As healthcare professionals, we should be more alert to the difficulties our clients are facing and be more patient when communicating with them in order to explore their concerns. It is understandable that some new mothers might ask the same question repeatedly, as it was their first time digesting these feeding concepts. To facilitate their understanding, messages should be communicated with the aid of non-verbal expression such as body language, tone of voice, gestures. (2)

Case Management

Addressing client's concerns before saying what needs to be said increases the chance of acceptance. (1) During the conversation, healthcare professionals should show empathy, explore client's feelings through active listening and avoid being judgmental even if we do not agree with the patient. It is also important that we convey the advantages of breast feeding. Reassuring our clients, who struggled to breastfeed, blindly, such as saying 'it doesn't matter if you breastfeed or not – your baby will do just fine.' would be misleading. We shall all bear in mind, as health care professionals, information needs to be evidence-based. (2) In an one-on-one conversation, we should try our best to provide tailor-made information.

When I coached Ms A, I first praised her achievement on comfortable positioning where baby's attachment and suckling were both up to standard. I ensured sufficient time for Ms A to ventilate her anxiety concerning the milk supply and reasons for introducing breast milk substitutes to baby. Then I demonstrated to her the way to observe the difference between deep and shallow suckling, stressing on the importance of ensuring the baby's sustained rhythmic suckling in the majority of the feeding time— as it implies effective milk transfer. Once she learned these skills, she started to regain confidence in judging the baby's feed—whether it is good to continue feeding or it is time to wake the baby up by burping, instead of using a rigid countdown principle. I continued my consultation by conferring Ms A tips on how to observe for baby's sign of satiety cues, and how baby should fall asleep on a relaxed arm. Ms A nodded and understood.

Just when I started to introduce responsive feeding toeinforce what she has learned, the baby's mouth was released from breast and it was seen completely filled with milk with dribbling. Ms A was astonished, and she immediately took photos to record this treasurable moment. She even dabbed the baby's mouth to check if the milky liquid was indeed breastmilk. At that point, both of us were very relieved, as seeing is believing— the mouthful of breastmilk was the best proof to clear Ms A's greatest anxiety. I rsuggested her to monitor the output of urine and stool to ensure baby was taking enough milk,

with leaflets for her reference. I explained if the output was inadequate, she has to review baby's intake and seek help form us. I further recommended having the baby sleep in a cot by her bedside, so that she could respond to the baby's needs.

Before I left, I summarized all the key points and asked Ms A to verbalized how she could know baby has adequate breastmilk. She answered with confidence and promised to try breastfeeding exclusively.

Ms A's case has shined light on mothers' needs during the COVID-19 situation. In this difficult time, may all health care professionals show our support and provide evidence-based information so that mothers could be empowered to make informed decision on infant feeding.

Key messages:

1. Pregnant women are encountering difficulties in accessing educational classes with babies born during COVID-19 outbreak period due to the anti-pandemic measures such as curbs on public gathering, leading to cessation of antenatal classes.
   孕婦在新型冠狀病毒疫情期間，由於防疫措施，如限聚令的執行，引致產前班停辦，因此，他們難於接受到實體的教育課程。
2. During postnatal period, health care professionals shall be more patient during education and coaching to empower mothers, especially to new mothers on exclusive breastfeeding.
   在產後期間， 醫護人員需更有耐心去教育和指導媽媽，尤其是支持新手媽媽作全母乳餵哺 。
3. Effective communication is crucial for mothers to make informed decision
   有效的溝通， 對於媽媽作出明智的決定至關重要。

References:

1. Mew Sze Wong, Huanyu Mou, Wai Tong Chien. Effectiveness of educational and supportive intervention for primiparous women on breastfeeding related outcomes and breastfeeding self-efficacy: A systematic review and meta-analysis. International Journal of Nursing Studies 117 (2021) 103874
2. UNICEF UK. Having meaningful conversations with mothers, Guidance for antenatal and postnatal conversation,http://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2018/10/Having-meaningful-conversations-with-mothers.pdf (Oct/2018)

Sodium-glucose Cotransporter-2 (SGLT2) Inhibitors in the Treatment of Heart Failure with Reduced Ejection Fraction (HFrEF)

SPH Pharmacy Department

It is well established that type 2 diabetes mellitus (T2DM) is associated with an increased risk of cardiovascular disease (CVD). Being a major cause of mortality among patients with T2DM, the risk of CVD is an important concern in the treatment of T2DM [1]. In 2007, a controversy involving rosiglitazone, a thiazolidinedione, was triggered following the publication of a meta-analysis that found increased risks of myocardial infarction and cardiovascular (CV) death when used in the treatment of T2DM. In response, the United States Food and Drug Administration (FDA) released a guidance document in 2008 to establish new expectations in the development of glucose-lowering agents that aimed to ensure CV safety of new glucose-lowering therapies in patients with T2DM [2].

Sodium-glucose cotransporter-2 (SGLT2) inhibitors belong to a class of glucose-lowering agents that were originally developed for treating T2DM. In 2013, Invokana (canagliflozin) was the first drug of its class to be approved for the treatment of T2DM. Following FDA 2008 guidance, trials were undergone to investigate the CV safety concern of this new glucose lowering therapy. Paradoxically, initial studies showed that apart from reducing blood glucose SGLT2 inhibitors also reduce the combined endpoint of myocardial infarction, stroke, CV death, hospitalization from heart failure (HF), and occurrence of renal failure in patients with known CV disease or at high risk of developing CV disease. A systematic literature search was conducted in PubMed from 2015 to 2020 where a total of 6 randomized, placebo-controlled CV and kidney outcomes trials of SGLT2 inhibitors in patients with TD2M were identified [3]. In this meta-analysis, SGLT2 inhibitors were suggested to be associated with a reduced risk of major adverse CV events and significant heterogeneity in associations with CV death.

Glucose-lowering agents listed in the market that were more potent than SGLT2 inhibitors failed to demonstrate CV risk reduction, especially in relation to HF. In addition, at lower estimated glomerular filtration rate (eGFR), the CV benefits of SGLT2 inhibitors were preserved despite a reduction in their glucose-lowering efficacy. Although the mechanisms accounting for the cardioprotective effects of SGLT2 inhibitors remain unknown, several key theories have been proposed, including improved myocardial energetics, improved myocardial ionic homeostasis, autophagy induction, and altered adipokine regulation [4].

Clinical Data

Empagliflozin Cardiovascular Outcome Event Trial in Type 2 Diabetes Mellitus Patients (EMPA-REG OUTCOME) trial conducted in 2015 was the first trial to assess the CV outcomes of SGLT2 inhibitors in patients with T2DM. In the EMPA-REG OUTCOME trial, 7020 patients were randomized to receive empagliflozin (4687 patients) or placebo (2333 patients) in addition to the standard of care therapy for diabetes. In patients with T2DM and at high CV risk, empagliflozin reduced the risk of 3-point major adverse cardiovascular events (MACE) namely myocardial infarction, stroke, and CV death, all-cause death, and hospitalization for HF in comparison with the placebo [5]. The CV benefit of SGLT2 inhibitors in T2DM patients were further confirmed in additional large-scale CV outcomes trials [6,7]. The investigators in these trials found that SGLT2 inhibitors demonstrated a similar and robust reduction in the risk of HF hospitalizations. However, most of the patients in the trials did not have HF at the time of enrollment, and the phenotype of HF was not well-characterized.

It was unclear if the effect of these drugs to reduce HF events applied to patients with a reduced or preserved ejection fraction. Besides, their beneficial effects on reducing HF hospitalization are unlikely to be directly related to glycaemic control, suggesting that the benefits could also extend to patients without diabetes.

Further to the exploration, researches regarding whether SGLT2 inhibitors can be used for treatment of HF in T2DM patients with reduced ejection fraction and if their beneficial effects are useful for patients without T2DM as well were conducted in two large clinical trials in patients with HFrEF, with or without T2DM. The Dapagliflozin in Patients With Heart Failure and Reduced Ejection Fraction trial (DAPA-HF) [8] and Empagliflozin Outcome Trial in Patients With Chronic Heart Failure and a Reduced Ejection Fraction trial (EMPEROR-Reduced) [9] both enrolled patients with classes II, III, and IV heart failure due to an ischemic or non-ischemic cardiomyopathy who were routinely treated with diuretics, angiotensin-converting enzyme inhibitors (ACEI), angiotensin receptor-neprilysin inhibitor (ARNI), beta-blockers and mineralocorticoid receptor antagonists (MRA). Half of the patients in each trial did not have T2DM. The DAPA-HF trial showed that dapagliflozin was superior to placebo among patients with HF at preventing CV deaths and HF while the EMPEROR-Reduced trial showed that empagliflozin was superior to placebo in improving HF outcomes among patients on excellent baseline guideline-directed medical therapy (GDMT) with symptomatic stable HFrEF (defined as ejection fraction ≤40%). Both trials supported FDA's approval of Forxiga (dapagliflozin) and Jardiance (empagliflozin) in the treatment of HFrEF and regardless of their diabetic status (Table 1).

Trial name	DAPA-HF	EMPEROR-Reduced
Medications being studied	Dapagliflozin (n = 2373) vs placebo (n = 2371)	Empagliflozin (n = 1863) vs placebo (n = 1867)
Major inclusion criteria	LVEF ≤ 40%, New York Heart Association (NYHA) II-IV, presence or absence of T2DM	LVEF ≤ 40%, NYHA II-IV, presence or absence of T2DM
Primary Endpoints#		
Cardiovascular death or hospitalization for heart failure	16.3% (dapagliflozin) vs 21.2% (placebo) 0.74 (0.65-0.85)	19.4% (empagliflozin) vs 24.7% (placebo) 0.75 (0.65-0.86)
First hospitalization for heart failure	10% vs 13.7% 0.7 (0.59-0.83)	13.2% vs 18.3% 0.69 (0.59-0.81)
Other Endpoints#		
Worsening renal function	1.2% vs 1.6% 0.71 (0.44-1.16)	1.6% vs 3.1% 0.5 (0.32-0.77)
Death from any causes	11.6% vs 13.9% 0.83 (0.71-0.97)	13.4% vs 14.2% 0.92 (0.77-1.10)
Remarks	The primary outcome was the same in prespecified subgroups, including according to diabetes status	The effect of empagliflozin on the primary outcome was consistent in patients regardless of the presence or absence of diabetes

Treatment effects are shown as hazard ratios and 95% confidence intervals for the comparison of the SGLT2 inhibitor and placebo

Table 1: Major clinical trials involving SGLT2 inhibitor interventions in patients with HFrEF [8,9]

2021 European Society of Cardiologists (ESC) Updates on Heart Failure with Reduced Ejection Fraction (HFrEF) Guidelines

Until recently, the pharmacological therapy for patients with established HFrEF involved mainly three drug classes: ACEI, beta-blockers, and MRA. These were previously the only drug classes with class 1 recommendation [10]. In 2017, the addition of Entresto (sacubitril-valsartan), an ARNI, to the American College of Cardiology/American Heart Association HF guideline update was the most notable change in recent years regarding the pharmacological therapy for HFrEF [11].

A breakthrough in the pharmacological treatment of HFrEF came in August 2021 where two SGLT2 inhibitors, dapagliflozin and empagliflozin were added to the class 1 recommendation in the updated ESC guideline [12,13]. Dapagliflozin or empagliflozin are recommended, in addition to optimal medical therapy (OMT) with ACEI/ARNI, beta-blocker and MRA, for patients with HFrEF regardless of diabetes status.

Licensed SGLT2 inhibitors and comparison

Currently, two SGLT2 inhibitors have been approved by the FDA for the treatment of adults with HFrEF to reduce the risk of CV death and hospitalization for HF. In 2020, dapagliflozin became the first SGLT2 inhibitor approved for this indication, followed by empagliflozin in August 2021. The starting and target dose for HF for both medications are 10mg daily and they are available as 10mg tablets in St. Paul's Hospital (see Table 2 for detailed drug comparisons). Empagliflozin is also available as 25mg tablets but it is only licensed for treatment of T2DM.

The road ahead for SGLT2 inhibitors

Besides their cardioprotective effects, SGLT2 inhibitors have further developments in other indications. In April 2021, the FDA approved dapagliflozin for the treatment of chronic kidney disease in patients at risk of progression, regardless of T2DM status. In September 2021, the FDA granted the "breakthrough therapy" designation for empagliflozin in the treatment of HF with preserved ejection fraction (HFpEF). This designation is given to "a drug that treats a serious or life-threatening condition and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement on a clinically significant endpoint(s) over available therapies". However, it still remains uncertain that whether dapagliflozin is also useful for patients with HFpEF. In addition, it is undetermined that if it is a class effect for other SGLT2 inhibitors (e.g. canagliflozin) to replicate those positive HF impacts on patients with HFrEF regardless of presence of diabetes. Moreover, it would be interesting for more ongoing head-to-head comparison trials to evaluate which SGLT2 inhibitor would induce more superior HF benefits over another in patients with HFrEF. The role of SGLT2 inhibitors continues to expand and offer important breakthroughs that provide hope to patients in need.

Pharmacist's point of view

As suggested by ESC guideline, SGLT2 inhibitors (canagliflozin, dapagliflozin, empagliflozin, ertugliflozin) are recommended in patients with T2DM at risk of CV events to reduce hospitalizations for HF, major CV events, CV death, and end-stage renal dysfunction. Currently, dapagliflozin and empagliflozin become new standard of care in addition to OMT therapy with ACEI, ARNI, beta-blocker and MRA to reduce the risk of CV death and worsening HF in patients with HFrEF, irrespective of diabetes status. Further large-scale clinical trials are expected to provide more roles of SGLT2 inhibitors in the treatment of HF.

Name	Forxiga (dapagliflozin) [14]	Jardiance (empagliflozin) [15]
Image		
Starting/ target dose for HF	10 mg daily	
Indications	To reduce the risk of CV death and hospitalization for HF in adults with HFrEF (NYHA class II-IV) with or without type 2 diabetes	To reduce the risk of CV death and hospitalization for HF in adults with HFrEF and HFpEF (off label use) with or without type 2 diabetes
Limitations of use	Not indicated for the treatment of type 1 diabetes mellitus or diabetic ketoacidosis	
Contraindications	Patients on dialysis	Patients on dialysis
Considerations	• No dosage adjustment in liver failure; lack of supporting evidence in severe hepatic impairment • No dosage adjustment is needed for patients with eGFR ≥25 mL/min/1.73m^2 • Initiation of therapy for patients with eGFR <25 mL/min/1.73m^2 is not recommended in the manufacturer's labeling, but patients already on dapagliflozin may continue 10 mg once daily treatment	• No dosage adjustment for patients with hepatic impairment. • Can be used for HFrEF in patients with eGFR ≥20mL/min/1.73m^2

Table 2: Comparison of SGLT2 inhibitors approved for HFrEF

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NEW DRUG APPROVAL

Following Drug and Therapeutics Committee meeting in January 2022, the following drugs have been approved and added to the formulary at SPH:

Drugs	Indication (s)	Usual dosage	Remarks
Cetraxal Plus (ciprofloxacin 3mg/ml and fluocinolone acetonide 0.25mg/ml) ear drops solution	• Acute otitis externa • Acute otitis media in patients with tympanostomy tubes (AOMT)	Instill the contents of one single-dose container (0.25ml) into affected ear(s) every 12 hours	N/A
Atectura Breezhaler 150/80mcg, 150/160mcg, 150/320mcg (indacaterol (as acetate), mometasone furoate)	Asthma maintenance treatment in adults & adolescents ≥12 yr inadequately controlled with inhaled corticosteroids & inhaled short-acting β_2-agonists	1 cap once daily (using the provided inhaler)	Administered at the same time each day
Enerzair Breezhaler 150/50/160mcg (indacaterol (as acetate), glycopyrronium, mometasone furoate)	Asthma maintenance treatment in adults inadequately controlled with a maintenance combination of a long-acting β_2-agonist & a high-dose inhaled corticosteroid who experienced ≥1 asthma exacerbations in the previous year	1 cap once daily (using the provided inhaler)	Administered at the same time each day

2021年 長期服務獎頒發儀式

為表揚和感謝員工多年來的努力耕耘及貢獻，聖保祿醫院於12月10日假本院演講廳舉行2021年長期服務獎頒發儀式。今年共9位同事獲得三十年長期服務獎及5位同事獲得二十年長期服務獎，而獲得十年長期服務獎的同事有41位之多。此外，院方更是首次有1位同事獲得四十年長期服務獎。院方致送紀念水晶及獎狀給得獎者表達謝意，部門同事亦紛紛送上鮮花和禮物祝賀。院方今年共送出了超過400份幸運禮物，並在儀式的尾聲舉行終極幸運抽獎，台上各幸運兒得獎時心情興奮，場面高興熱鬧。

為迎接普天同慶的聖誕節，聖保祿醫院於12月10日假本院餐廳舉行聖誕聯歡會，讓員工暫時放下繁忙的工作，一同享受一頓豐富的自助餐，彼此聯誼，送上問候祝福。當天院方亦安排了攤位遊戲，參加者均童心未泯，投入於各個遊戲中，四周不時傳來歡笑聲，充滿著熱鬧的節日氣氛，眾同事均盡興而歸。