







Baby's First Line of Defence – Genetic and Genomic Testing



保寶之旅

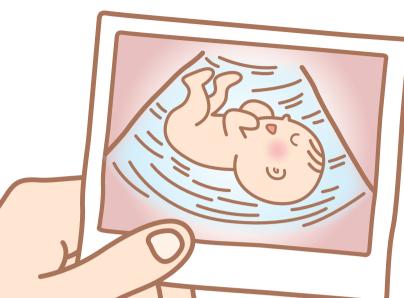
夫婦由 bingo (確認懷孕) 一刻起,便開始為寶寶在各方 面作最好安排。醫管局今年加強產前基因檢測服務,讓準 今天,保寶之旅不易走,既要努力確保寶寶在媽媽肚內健

Pregnancy with peace of mind



有意見或投稿,請電郵 ehaslink@ha.org.hk,傳真 2808 0242 或 郵遞醫管局大樓216N室《協力》編輯組收。

醫管局產前診斷服務 進入基因年代



為人父母[,]由懷孕一刻已開始 長憂九十九的旅程。最令父母擔 心的莫過於腹中胎兒會否有先天性 疾病或缺陷,例如唐氏綜合症、發育遲緩和器官及 骨骼問題等。猶幸隨著科技發展,我們可透過產前基因 檢測及早知道胎兒健康狀況,減少懷孕時的憂慮。

醫管局今年初成立遺傳及基因組服務督導委員會,制定相關醫療服務方向,並將發布《遺傳及基 因組服務策略》作為未來五至十年的規劃藍圖,包括發展產前診斷服務。

進入基因年代,首先要知道甚麼是基因組、染色體、遺傳基因和脱氧核醣核酸(DNA)。醫管局 遺傳服務中央委員會主席**梁永昌**醫牛説,人類的基因組就像一套由多冊書組成的圖書,每個染色 體代表一本書,書中由文字組成一個章節,正如多組 DNA 組成一個遺傳基因。

顧名思義,遺傳基因是決定生物遺傳各種功能的物質。人體估計約有三萬條遺傳基因分布在23對 染色體上,每個基因都有不同功能,包括控制胎兒發育成長、嬰兒出生後身體的新陳代謝、思想 性格和繁殖等活動。

基因對胎兒成長發展有很大影響,孕婦若在產前從安全而準確的基因檢測中,得知胎兒成長狀 況,可減少懷孕時的憂慮。醫管局今年6月推出胎兒基因晶片測試(CMA)新服務,第四季將推 出無創性胎兒染色體篩查(NIPT),有助父母盡早應變,對胎兒和孕婦都有保障。

2018年逾3.5萬名孕婦在公立醫院分娩, 梁醫生估計完善孕婦產前基因診斷服務 後,可篩檢超過50名嬰兒患唐氏綜合 症,以及超過100名患其他先天性疾病。

推出基因檢測服務同時,他強調不能忽 視檢測前後的輔導。「現時臨床醫學中, 仍有很多基因異常,未能確定會否影響 胎兒。所以檢測前要輔導和徵詢孕婦意 見,了解他們想知多少。」檢測後若發現 胎兒患先天性疾病,會由遺傳輔導專家 跟進,輔導孕婦及家人,協助他們了解 遺傳病的性質、復發率等,又會根據個 案的家庭結構狀況,協助他們有效地計 **劃生育,例如是否繼續懷孕、生育下一** 胎等。



梁永昌醫生(左)表示,醫管局除了拓展服務量外,亦與衞生署 臨床遺傳服務、香港大學醫學院和香港中文大學醫學院合作。 Dr Leung (left) indicates that while developing its own capacity of delivering G/G services, HA also collaborates with Clinical Genetic Service of Department of Health and the medical schools of the University of Hong Kong and The Chinese University of Hong Kong.



In early 2019, Hospital Authority set up a Steering Group on Genetic and Genomic Services to spearhead the overall development of G/G services in HA. Moreover, HA Strategic Service Framework for Genetic and Genomic Services will be released soon to map out the development of G/G services, including prenatal diagnosis, for the next five to ten years.

Dr Leung Wing-cheong, Chairman of Central Committee on Genetic Services, explains the relationship between genome, chromosome, gene and Deoxyribonucleic acid (DNA) with an analogy. Imagine human genome is a book series with each book equivalent to a chromosome. Chapters are made up of words, as genes are made up of DNA.

Genes are basic physical and functional unit of heredity, having great impact on the growth and development of foetus. It is estimated that every human being has about 30,000 genes distributed over 23 pairs of chromosomes. Each gene has a different function, and controls different kinds of biological activities including foetal growth, metabolism, personality, cognition, proliferation, etc.

Among 35,000 deliveries in public hospitals last year, Dr Leung estimates that comprehensive prenatal genetic testing will detect over 50 babies with Down syndrome and over 100 babies with other congenital diseases or abnormalities.

Moreover, Dr Leung emphasises the importance of pre-test and post-test counselling. "Currently, there are still many chromosome imbalances with unknown clinical significance. Therefore, we should discuss with the expectant mothers and their spouses to find out what they want to know before testing." Genetic counselling will be offered to the family whose baby is detected with congenital diseases or abnormalities. The goal is to help the family understand hereditary nature, the risk of occurrence of the disease, as well as helping the couple make informed decision on family planning regarding their family structure, not only for the affected pregnancy but also for future pregnancy.

3

New era of prenatal testing

Parenting is an arduous journey since the sparkling moment of conception. Parents often ride an emotional roller coaster when they learn about uncertainties of any congenital diseases or abnormalities such as Down syndrome, developmental delay, organ malformation or skeletal abnormalities. Fortunately, prenatal genetic and genomic (G/G) tests providing insightful information on the health and condition of the foetus are available to help make pregnancy journey less stressful.

Safe and accurate G/G testing gives every pregnant mother peace of mind in expecting her newborn. Two new services of prenatal diagnosis are introduced by HA this year, namely chromosomal microarray (CMA) in June and non-invasive prenatal testing (NIPT) in late 2019. These diagnostic tests assess the risk of having a baby with congenital abnormalities and enable early intervention, providing more protection to the foetus and the mother.

準媽媽產前診斷新流程

Process of new prenatal diagnosis for mums-to-be

所有孕婦 All pregnant women

第一層篩查:在第11至13周 照超聲波量度胎兒頸皮、檢驗媽媽血清標誌物 First-tier screening by ultrasound examination of foetal nuchal translucency which measures skin thickness at the back of a baby's neck: and maternal serum markers in the 11th -13th week

—— 高風險 High risk —— 低風險 Low risk

NEW! 第二層篩查: 無創性胎兒染色體篩查、 檢測媽媽血漿內的胎兒基因 Second-tier screening by non-invasive prenatal

• 抽絨毛膜或羊膜穿刺(俗稱抽羊水)作以下測試 - PCR 唐氏綜合症快速測試

testing (NIPT): test maternal plasma foetal DNA

- 傳統染色體核型分析:分析染色體缺失、易位及 遺傳病
- **NEW!** 胎兒基因晶片測試:診斷基因序列有否缺失和重複
 - 胎兒結構超聲波
 - Chorionic villus sampling or amniocentesis
 - PCR: rapid aneuploidy test for Down syndrome - Karyotyping: to detect aneuploidies, gross structural chromosomal abnormalities and translocations
- **NEW!** Chromosomal microarray (CMA): molecular karyotyping to detect microdeletions and microduplications
 - Foetal anomaly ultrasound examination

如有需要,轉介至遺傳輔導專家跟進 Refer to genetic counselling if necessary

一般會為35歲或以上的孕婦在 第18至22周進行胎兒結構超聲波 Foetal anomaly ultrasound examination offered to pregnant women aged 35 or above in the 18th - 22nd week

> 常規產檢 Routine antenatal care

預知未來 新添兩項產前檢測

政府去年施政報告宣布由政府資助,衞生署、醫管局、大學、私家醫院和科研界共同推行 「香港基因組計劃 |。與此同時,醫管局正提升相關基因檢測服務,包括今年6月增設胎兒基因 晶片測試 (CMA) 和第四季推行無創性胎兒染色體篩查 (NIPT),以更準確、更安全、更快捷的 方法,檢測胎兒患先天疾病的風險,預計每年各處理約1,600宗和3,000宗個案。



無創性胎兒染色體篩查利用次世代定序儀分析,檢驗孕婦血漿中胎兒 染色體數量,分析患上三體綜合症的風險。 Using next-generation sequencing technology, NIPT determines the amount of foetal chromosomes in maternal plasma and the risk of having common trisomy

NIPT: 重點檢測三體綜合症

More precise and safer screening for trisomy

醫管局的 NIPT 主要檢測胎兒是否患三體綜合症 (即某一對染色體多了一條), 包括唐氏綜合症 (T21)、愛德華氏綜合症(T18)和巴陶氏綜合症(T13)。此服務將由香港兒童醫院的六人篩查團隊 負責,成員包括病理科醫生、科學主任、生物資訊學家和三名醫務化驗師。該院病理學顧問醫生 **袁月冰**表示,NIPT 優點是準確度高達99%,假陽性風險低於1%,而且可避免在入侵性檢查時 (即孕婦子宮內抽取絨毛和羊水檢查)導致流產,提高產前檢測的安全和準確度,免卻孕婦承受 不必要的生理及心理壓力。

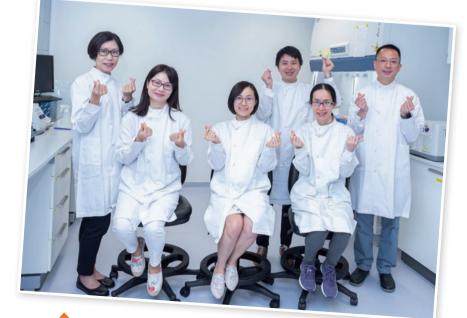
她解釋:「NIPT 是醫管局為孕婦提供的第二層篩查。若八間醫院的產科在第一層篩查發現胎兒屬 高風險,醫院會將孕婦血液樣本送過來。我們會利用次世代定序儀分析,檢測血漿內胎兒基因 篩出懷疑患病胎兒,10個工作天內完成報告,交回醫院跟進,考慮是否需再進一步抽絨毛或羊 水檢查。」

服務即將開展,團隊目前正進行前期工作,包括申請技術專利、購置儀器等,亦需與總辦事處 各醫院產科、資訊科技部等同事商討細節,作好準備

Three chromosomal disorders, also known as trisomy, occur when there is an extra chromosome. Trisomy can be detected in Down syndrome (caused by an extra chromosome 21), Edwards syndrome (caused by an extra chromosome 18) and Patau syndrome (caused by an extra chromosome 13). A 6-person team in Hong Kong Children's Hospital (HKCH), comprising a pathologist, a scientific officer, a bioinformatician and three medical technologists, is responsible for the new NIPT service in HA. Dr Liz Yuen, Consultant (Genetic and Genomic) from HKCH Department of Pathology, explains that NIPT test is 99% accurate and has a false-positive rate of less than 1%. Non-invasive procedure not only reduces the risk of miscarriage due to chorionic villus sampling or amniocentesis, but also avoids unnecessary physical and psychological stress of parents.

Dr Yuen elaborates, "In HA, NIPT is the second-tier screening for pregnant women whose foetus is screened high risk in the first-tier screening performed by any one of our eight obstetric clinics. After receiving the mother's blood sample from obstetric clinic, the team will test maternal plasma foetal DNA using next-generation sequencing technology. Report will be available within 10 working days and passed to respective clinic for follow-up, which may then consider the possibility of having a chorionic villus sampling procedure or amniocentesis."

With NIPT service commencing in late 2019, the team is actively preparing for patent application, purchase of equipment, and communication with HA Head Office, hospitals' Department of Obstetrics, and also IT departments on service details.



袁月冰醫生(左三)和 NIPT 團隊曾於威爾斯親王醫院培訓兩年半 跟隨發明 NIPT 技術的香港中文大學醫學院團隊學習。 Dr Liz Yuen (third left) and the NIPT team have been trained in Prince of Wales Hospital for two and a half years by The Chinese University of Hong Kong research team which invented NIPT

CMA: 檢測胎兒染色體先天缺陷 **Comprehensive DNA test for congenital** abnormalities

展遲緩。」

檢測方法是抽取孕婦的絨毛 或羊水後,樣本交由香港大 學及香港中文大學醫學院實 驗室或政府遺傳科的專家分 析,七至十個工作天內完成 報告。主診醫生會向孕婦和 家人解釋報告,若結果有 致病性或臨床意義不明,會 轉介個案接受臨床遺傳學家 諮詢服務。目前贊育醫院 衞生署遺傳輔導診所,以及 香港大學醫學院和香港中文 大學醫學院均提供相關輔導 服務。

Tech breakthrough bringsv. two new prenatal tests

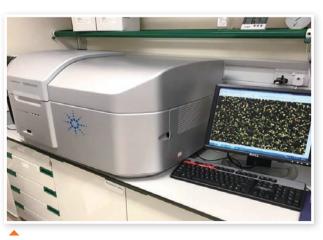
The 2018 Policy Address announced the government-backed Hong Kong Genome Project, with the collaboration of HA, Department of Health, universities, private hospitals, and the research and development sector. Simultaneously, HA has introduced two new tests of prenatal diagnosis, namely chromosomal microarray (CMA) in June 2019 and non-invasive prenatal testing (NIPT) soon, expected to handle 1,600 cases and 3,000 cases a year respectively. The tests can detect foetus' genetic abnormalities in a more accurate, safer and faster fashion.

超聲波檢杳異常、屬唐氏綜合症篩杳高危或有家 族遺傳病病史的孕婦,可抽絨毛或羊水,提取胎 兒樣本,進行胎兒基因晶片測試(CMA)。

CMA 能診斷胎兒有否出現染色體微增多或微缺 少所致的綜合症,如迪喬治症候群、小胖威利 症、天使人群症候群、威廉氏症候群等。梁永昌 醫生指出,CMA 比傳統的染色體核型分析更仔 細,能診斷出顯微鏡下觀察不到的染色體異常, 檢測超過150種影響智力發展的基因疾病。他說 「有些先天疾病與智力發展相關,如能及早發現 和採取適當的跟進和治療,可更有效照顧孕婦, 盡早為胎兒做好疾病風險管理,甚至減少智力發 CMA testing will be performed for pregnant women under several circumstances, namely when the foetus shows abnormal ultrasound findings; when Down syndrome screening test indicates high risk: or when there is family history of genetic disorder. Genetic samples will be obtained through chorionic villus sampling or amniocentesis



「抽羊水」多數在懷孕期第16至20周進行,是以一支幼針(箭咀) 放入子宫腔内,抽取包圍胎兒的液體樣本進行基因檢測。 Amniocentesis is usually performed between the 16th to 20th week of gestation. A sample of liquid surrounding the foetus is taken by a fine needle (arrow) for chromosomal analysis



CMA 能診斷胎兒右否出現染色體微增多或微缺,今診斷及預後 更準確。

CMA improves the diagnostic and prognostic accuracy of clinically significant chromosomal microdeletions or microduplications

CMA detects clinically significant chromosomal microdeletions or microduplications. leading to genetic disorders such as Di-George syndrome, Prader-Willi syndrome, Angelman syndrome and Williams-Beuren syndrome. Dr Leung Wing-cheong points out that CMA is more sensitive than traditional karyotyping as it can detect chromosome gain and loss which cannot be seen under

> microscope. As a result, more than 150 congenital abnormalities can be diagnosed. Some congenital diseases hamper human development in various aspects. "Early diagnosis, appropriate treatment and follow-up ensure better care for pregnant women, better prepare foetus for optimal disease management, or even minimise the risk of developmental delay of the baby." he says.

> After chorionic villus sampling or amniocentesis, the test report will be analysed and prepared by two university laboratories and government clinical genetic service specialists and will be ready in seven to ten working days. Attending doctor will explain the result to the mother and family, but when findings are abnormal or unclear, they will be referred to a clinical geneticist for further counselling. Interpretation of results and counselling support are now available at Tsan Yuk Hospital, Genetic Counselling Clinic under Department of Health, and the medical schools of the University of Hong Kong and The Chinese University of Hong Kong.

基因檢測面面觀

Lesser-known perspectives of DNA testing

HA首位生物資訊學家 The first bioinformatician in HA

「我很開心成為醫管局首名生物資訊學家,並加入 NIPT 團隊。我的 職責主要是編寫電腦計算程式和分析數據,將次世代定序儀產生的原 始數據,利用電腦程式轉化成病理科醫生能解讀的生物數據,助他們找出 基因變異。大學時,我主修基因工程科,同時修讀計算機課程和統計課程。 加入香港兒童醫院之前,我曾在大學從事產前診斷數據分析的工作。由於生 物資訊學發展迅速,我要經常留意國際最新的研究和相關資訊,希望日後有機 會將技術引入 NIPT 服務中。」

"I am glad to join the NIPT team and become the first bioinformatician in HA to contribute to this new service. I mainly work on computer programming and data analysis through transforming next-generation



蘇小茜 Susie Su 香港兒童醫院生物資訊學家 Bioinformatician Hong Kong Children's Hospital

sequencing raw data into biodata. Results of such analyses will help pathologists discover congenital abnormalities. Having a bachelor degree in genetic engineering and studying computer science and statistics, I handled data analysis of prenatal diagnosis in university before joining Hong Kong Children's Hospital. The field of bioinformatics develops rapidly, I must keep abreast of the latest research and knowledge in order to introduce new technology to NIPT service

醫專設遺傳學及基因組學課程 Academy offers specialist training in Genetics and Genomics

香港醫學專科學院轄下的香港病理學專科學院,去年推出新的「遺傳學及基因組病理學」 在職培訓課程。課程修讀年期為兩年,從解剖病理學、化學病理學、血液學和免疫學,探 究基因遺傳學的應用。今年底將有首批院士出爐。另外,香港兒科醫學院已設立「遺傳學及 基因組學專科(兒科)|的分科,首批院士2017年誕生。課程培訓臨床遺傳學家,透過不同的 遺傳和基因組科技,為個人和家庭提供遺傳診斷和諮詢,檢測是否患上或有風險患上與遺傳 有關的疾病。💮

The Hong Kong College of Pathologists under Hong Kong Academy of Medicine has launched a two-year post-fellowship on-the-job training programme in the field of genetics and genomics in anatomical pathology, chemical pathology, haematology and immunology. The first batch of fellowship will be awarded in late 2019. Besides, Genetics and Genomics (Paediatrics) is a new subspecialty set up by Hong Kong College of Paediatricians, providing specialist training on genetic assessment, diagnostic investigation with the use of genetic technologies, and genetic counselling for individuals or families with, or at risk of, hereditary disorders. The first batch of fellow was conferred in 2017.

非高風險孕婦 少於一萬元買安心 Smart use of maximum \$10,000 for low-risk mum

公立醫院將為高風險孕婦提供第二層 NIPT 及 CMA 服務,至於非高風險孕婦若想 「買個安心」,梁永昌醫生建議善用一萬元到私人醫療機構作產前基因檢測,包括 約5,000元的 NIPT 作第一層檢查和約3,000元的胎兒結構超聲波檢查 (公立醫院 一般不會為35歲以下的孕婦提供此項檢查)。他提醒大家,坊間提供 NIPT 的 供應商眾多,但成效相若,孕婦做一次便可。另外,孕婦不要錯過到公立 醫院或私家診所量度胎兒頸皮的時間,因頸皮過厚(3.5毫米或以上),不 只反映胎兒患唐氏綜合症的風險,還有其他先天性疾病的風險。

> Public hospitals will provide second-tier NIPT and CMA services for high-risk pregnant women. For low-risk mums who are not eligible for either NIPT or CMA in public hospitals but want to know more about condition of their foetus, Dr Leung points out that spending maximum \$10,000 is good enough for one to have more information by doing prenatal genetic and genomic tests in private medical organisations. "Take an NIPT as first-tier screening for around \$5,000; followed by a foetal anomaly ultrasound examination for \$3,000, which is not offered to pregnant women under 35 in public hospitals." Dr Leung highlights that there are numerous suppliers of NIPT in the market, most of which have more or less similar performance. Doing the test once is sufficient. Moreover, expectant mothers should not miss the ultrasound examination for foetal nuchal translucency, skin thickness at the back of the baby's neck, be it done in a public hospital or private clinic. High nuchal translucency (≥3.5mm) not only indicates the risk of Down syndrome but also other congenital abnormalities.

> > ATDATUS

2009年日本首次發現耳念珠菌,後來蔓延全球各地。今年6月香港出現首宗個案, 截至9月17日,共發現18宗帶菌但沒有感染症狀的個案。

耳念珠菌為何值得大家特別關注?醫管局總感染控制主任賴偉文醫生稱,耳念珠菌 有多重耐藥性:對常用的抗真菌藥物如氟康唑、兩性黴素 B、棘白菌素類的耐藥性分 別約90%、30%和少於5%。另外,標準實驗室化驗方法難以識別耳念珠菌,有可能 把它誤以為是其他念珠菌。與其他念珠菌相比,耳念珠菌生命力頑強,可在不同環 境生存,亦能抵抗一般消毒劑,容易在醫院傳播,一旦感染,死亡率相當高。

防護中心。

多重措施 預防正金班菌爆發 Avoid outbreak of Candida auris in hospital

賴醫生強調,醫管局已制訂感染控制指引,積極控制並防止耳念珠菌在醫院爆發。

過往一年曾在海外入院的病人,若在香港入住高危病房如深切治療部、臨床腫瘤科 血科和骨髓科,均需接受入院篩查。用以檢測的儀器是蛋白質譜分析儀,檢驗病人 鼻腔、腋下和腹股溝的組合拭子樣本;若結果呈陽性,醫院會隔離確診病人;並根 據感染控制指引和個人風險評估,展開接觸追蹤調查;所有確診個案需呈報醫管局 總感染控制主任辦事處。如臨床樣本中發現念珠菌或出現爆發,亦會立即通知衛生

賴偉文醫生説,防止多重耐藥性生 物如耳念珠菌的傳播,最重要是保 持手部和環境衛生。 Dr Raymond Lai says that good compliance to hand hygiene and environmental hygiene is the most important in preventing the spread of multidrug-resistant organisms including C. auris.

The global spread of Candida auris (C. auris) is alarming since it was first discovered in 2009 in Japan. In Hong Kong, the first case was found in June 2019. Up to



17 September, a total of 18 cases have been detected, all of them carriers without symptoms.

Why has C. auris aroused so much concern? Hospital Authority Chief Infection Control Officer Dr Raymond Lai explains, "First, C. auris is highly multidrug-resistant (90% resistant to fluconazole, 30% resistant to amphotericin B and less than 5% resistant to echinocandins). Second, it is difficult to identify and is easily misidentified as other *Candida* species by standard laboratory methods. Third, the yeast can easily survive in various types of environment and is more resistant than other *Candida* species to common environmental disinfectants, making its spread in hospitals easier." Moreover, the mortality rate of invasive C. auris infection is high.

> Dr Lai emphasises that infection control guideline for C. auris has been formulated to contain and avoid outbreak of the yeast in HA hospitals.

Admission screening should be performed for patients admitted to high-risk units (e.g. intensive care units, clinical oncology wards, haematology wards and bone marrow units) if one had been hospitalised outside Hong Kong in the last 12 months. Pooled swabs of patient's nasal, axilla and groin will be collected for testing. Laboratory diagnosis has been enhanced with the use of Matrix-Assisted Laser Desorption / Ionization Time-of-Flight Mass Spectrometry (MALDI-TOF MS). If the result comes out positive, the patient should be isolated in single room with strict contact precaution. Contact tracing will be carried out according to infection control guidelines as well as individual risk assessment. All cases should be reported to Chief Infection Control Officer Office of HA Head Office, and also to Centre for Health Protection if *C. auris* is identified in clinical specimens, or when there is an outbreak.

甚麼是耳念珠菌? 感染後會致命嗎? What is *C. auris*? Can C. auris infection be fatal?

耳念珠菌是念珠菌的一種,2009年首次在日本一名病人的外耳道 分泌發現。根據國際數據,入侵性耳念珠菌感染的致命率可高達三至六成。

C. auris belongs to Candida species. It was first found in 2009 in Japan in the external ear canal discharge of a patient. Overseas data reveals 30% to 60% mortality rate caused by C. auris infection.

哪一類病人較易受到感染? Who is highly susceptible to C. auris infection?

長期住院的病人、身上有入侵性醫療儀器如中央靜脈導管或呼吸機的病人、糖尿病患者 免疫力受損的病人、近期曾接受大手術的病人、正服用寬廣譜抗生素或 抗真菌素的人士等較易受感染。

> Patients who have been hospitalised for a long time; have invasive medical devices such as central venous catheters or ventilators; have diabetes; have immunocompromised conditions; have recently undergone major surgeries; and have been on broad-spectrum antibiotics or antifungal drugs appear to be at higher risk of infection.

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STREER BRER

Love and care behind-the-scene

醫院裡,除了醫生、護士和專職醫療人員外,還有一群支援同事。他們默默耕耘,不分晝夜, 做好自己本份,與醫療團隊通力合作,照顧病人。《協力》採訪了幾位支援同事,由他們 親身分享每日走在最前線的感受。

Doctors, nurses and allied health workers are a common sight in our daily efforts in safeguarding people's health – but behind the scenes, there is a dedicated and sometimes overlooked crew of supporting staff who serve patients with passion and make a difference to patient's journey. HASLink spoke to some of them to learn about their different roles in hospitals.

血的 神繁 Lifeblood of patient care

施璟俊 / 施鴻泳 Sze King-chun / Sze Hung-wing

一級病人服務助理(臨床助理統籌員) Patient Care Assistant I (Clinical Assistant Coordinator) 瑪嘉烈醫院 Princess Margaret Hospital

施璟俊和**施鴻泳**在瑪嘉烈醫院擔任抽血員超過 10年,主要職責包括抽血及血液培養、心電圖檢 查和留置靜脈導管等服務。抽血隊編制是三更制, 每更約有四至十人,走遍全院病房和門診替病人抽 血,以便醫護人員盡早取得驗血報告,為病人適切 治療。雖然工作繁忙,但抽血員對每個步驟都一絲 不苟。他們會先核對病人資料,向病人講解抽血程 序,然後熟練地抽血,務求減低病人痛楚。

除一般的抽血服務外,二人還協助上司處理日常 行政工作,如編排更表、監察服務效率等。他們 亦指導新入職抽血員各項抽血技巧,提點同事要 以關顧長期病患者、長者和病童的需要為重;並 協助新同事適應工作文化,使他們能儘快獨立 工作,投入服務。

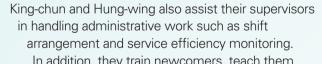
抽血隊初成立時,夜更只有兩人當值。施璟俊記 得有一次夜更同事生病,他獨自一人走遍全院抽 血。儘管當時忙得不可開交,他亦能冷靜地按緩 急次序為病人服務,與醫生護士緊密溝通,尋求 協助,那是他入行以來最難忘的一夜。現時抽血隊 夜更已增至四至五名抽血員當值,可提供更佳服務。

施鴻泳則表示,剛入職時任病房助理,接受培訓後 轉任抽血員,想不到自己也可掌握一門專業,能 自豪地告訴孩子,他的工作能夠幫助病人,饒有 意義!

Sze King-chun and Sze Hung-wing have both been working as phlebotomists in

Princess Margaret Hospital for more than a decade. They draw blood, examine blood culture, check electrocardiogram, and place intravenous catheters on patients. Working

in three shifts with four to ten phlebotomists on duty in each shift, they assist in patient treatment by taking blood samples from patients for test and analysis. Phlebotomists are meticulous about every procedure, from checking patient ID to ensure accuracy of samples, to comforting them to reduce anxiety as far as possible.



In addition, they train newcomers, teach them blood taking techniques and help them adapt guickly to the working culture and operate independently by sharing tips with them on handling children, elderly patients, and the chronically sick.

In the early days when the phlebotomist team was set up, there were only two phlebotomists per each night shift. King-chun remembers once

working alone on one shift when his colleague was sick. He spent the entire night rushed off his feet as he drew blood for patients throughout the hospital but still managed to follow patients' priority and keep on top of his hectic solo schedule. Today, service has improved with at least four phlebotomists on each night shift.

Hung-wing first worked as a ward assistant but later developed his career through training as a phlebotomist. He is now proud to tell his family that he has a meaningful job which makes a crucial difference to patient's treatment and recovery.



施鴻泳(左)和施璟俊 Sze Hung-wing (left) and Sze King-chun

口感。

添美味。

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前酒店廚師 落戶北區創「健•美」餐

Chef brings art of fine dining to hospital food

梁偉明 Terry Leung 一級總廚 Hospital Chef I

北區醫院 North District Hospital

北區醫院中央廚房現時為11間公立醫院供應食 物,包括七間新界東聯網醫院、葛量洪醫院、 **廣華醫院、黃大仙醫院及仁濟醫院,每日生產** 3.4公噸食物。膳食部一級總廚梁偉明曾在半島 酒店餐廳當廚師八年,2014年加入醫管局,擔 當中央廚房的主廚。

18歲入行做廚師的偉明一直希望打破「健康食物 必難食」的定律,「其實沒甚麼食物是不健康, 只看份量、營養比例、質感是否適合病人。」 他以豉油雞翼為例,最重要是調味適中,「我會 與營養師一起分析營養,研究最佳烹調方法。 假如你用一公升豉油醃20公斤雞翼,當然很鹹; 但若用一公升豉油醃40公斤雞翼便剛好了。| 他指,團隊會改良味道及烹調方法,令食物保 持色香味俱全,例如用五香粉調味、配搭不同 食材的天然香味,補足味道;又引入真空處理 及低溫慢煮烹調方法,鎖住食物水分,保持

由於病人可能因為食藥或病情而覺得口淡淡, 想吃點鮮味、有口感的食物。梁偉明與團隊 花心思,將龍蝦汁、台式滷肉加入病人餐單, 「我們改良醬汁的調味比例,再加入更多蔬菜作 配菜,不單能調和口味,更符合『三低一高』的 健康飲食原則。|

中央廚房的病人餐種類眾多,如供吞嚥困難病 人吃的「全糊餐」、進行檢查診斷前要配 限制纖維量的「低渣餐」、為信奉回教 病人提供的「清真餐」,以及「齋餐|等 團隊每年檢視及改良餐單,目前正研 究在糊餐中加入薯蓉,為病人舌尖增

膳食部按病人需要製作不同餐款。左圖是糊餐;右圖是中秋節特別餐。 Catering Services Department provides various types of meal according to patient's need. The left one is a pureed meal and the right one is a special meal for celebrating Mid-Autumn Festival



Terry Leung had been a chef at the Peninsula Hong Kong for eight years. He has brought his talent in fine dining to his job as the hospital chef of North District Hospital in 2014, which produces 3.4 tons of food for 11 public hospitals a day including all seven hospitals of the New Territories East Cluster, as well as Grantham Hospital, Kwong Wah Hospital, Wong Tai Sin Hospital and Yan Chai Hospital

Having worked as a chef since the age of 18, Terry always believes that healthy food can also be appetising. "No food is unhealthy," he says. "To get patient meals right, we must weigh up the texture, quantity and proportion of different nutrients in each dish." He takes the dish chicken wings in soya sauce as an example."Working with dietitians, we do nutrition analysis and study the best cooking methods," he explains. "Of course, it would be too salty to marinate 20kg of chicken wings in one litre of soya sauce. But if you marinate 40kg of chicken wings in one litre of soya sauce, it comes out just right." His team constantly improves the taste of dishes they prepare and the cooking methods to keep meals tasty and appealing and has introduced techniques such as seasoning food with five-spice powder, flavour pairings of different natural ingredients, vacuum cooking, and slow cooking to retain moisture and texture of food.

Appetite for and enjoyment of food vary among patients whose senses of taste and smell are affected by medicine and treatment, and patients are sometimes surprised by dishes with lobster sauce or topped with Taiwan-styled braised meat. "We improve the seasoning ratio of the sauce and add more vegetables as side dish," Terry says. "This not only tantalises patients' palates, but also achieves a balanced diet with 'three low and one high' as the rule of thumb.'

> Special meals for patients with different needs and demand are part of our daily routine. Pureed meals are prepared for patients who have difficulty chewing, Halal meals and vegetarian dishes for Muslims, and low-fibre meals for patients before examinations and diagnoses. Terry and his colleagues revamp the patient menu annually and are currently planning to add mashed potato into pureed meals to make them even tastier.

機器活字典

Walking encyclopedia of medical instruments

陳小梨 Alice Chan

二級病人服務助理 Patient Care Assistant II 東區尤德夫人那打素醫院 Pamela Youde Nethersole Eastern Hospital

> 曾於私家診所工作的陳小梨,八年前轉職至公立 醫院而要重新適應環境,一切由零開始。初時她 每日跟著帶教護士學習病房運作,負責兒科深切 治療部及兒科急症病房的收症、執拾病床、安排 及操作醫療儀器、協助病人更換呼吸機喉管等日 常工作。

小梨由最初不懂使用儀器,不熟悉病房運作, 就連發問也不會,只能一邊聽護士教導,一邊 用簿記下重點,到今日,病房各式各樣的儀器 也難不到她。她不但會仔細閱讀儀器的使用説 明書,連推銷醫療儀器的職員也不放過,請教

動補位協助。

「病房姨姨」 哄人高手

Caring beyond the call of duty

歐陽慧芬 Au Yeung Wai-fan

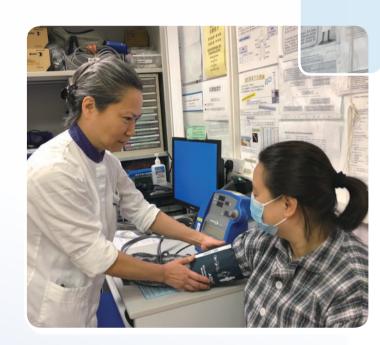
二級病人服務助理 Patient Care Assistant II 瑪麗醫院 Queen Mary Hospital

歐陽慧芬日常工作是在婦科病房照顧病人,如抹身和餵 食等,偶爾也會給病人心理支援,因為即使是成年病 人,也難免會害怕入院。曾有病人情緒起伏太大,醫生 想找精神科同事幫忙,慧芬像哄小孩般安撫她,結果病 人情緒穩定下來。

又有一次,一名產婦因失血過多送到醫院,情況危急 慧芬在旁一邊安慰婦人不要怕,一邊哄她要當個勇敢 媽媽。結果手術成功,慧芬再次在病房遇到該名產婦, 二人立即緊握著對方的手,相視而笑,一切盡在不言 中。「因家人曾患上惡疾,明白病患和家人感受,故盡 力以同理心了解病人需要。」慧芬説。

視病人如親的慧芬,也視醫院為第二個家。她家住 屯門,每日花四小時來回住所與醫院,卻毫無怨言, 只為報答瑪麗醫院當年的知遇之恩。原來她2000年接 受工作培訓後,同伴都找到工作,惟她沒有著落,非常 傍徨。猶幸最後獲得瑪麗醫院取錄,一做至今,「我好 感激瑪麗 (醫院) 在我最需要工作時,給我這份工,令 我有穩定收入照顧家庭。之後,幸運的遇上一班好同 事,所以我會繼續堅守這崗位。」

Au Yeung Wai-fan's role in looking after patients at gynaecology ward goes way beyond cleaning and feeding them. She also provides them with comfort and psychological support in times of need. On one occasion, she calmed down a patient who became emotional when her doctor wanted to call in a psychiatric team.



Another time, she accompanied a woman suffering excessive blood loss before delivering her child. Wai-fan comforted her, told her to be brave and not to be afraid until the woman was rushed to the operating theatre. The surgery was successful and Wai-fan later held hands and exchanged smiles with the woman when she returned to the ward. "A relative of mine also had serious illness so I understand the feelings of patients and families. I serve them with empathy," she explains.

Wai-fan regards the hospital as her second home, travelling four hours every day from her home in Tuen Mun to Queen Mary hospital and return since she joined the hospital in 2000. "After vocational training, most of my classmates were employed, leaving me unemployed and helpless. I am thankful to the hospital for hiring me when I needed a job to feed my family," she says. "I have a very nice group of colleagues. That makes me all the more determined to continue to serve here."

大家到髮型屋理髮,希望變得更精神更漂亮, 長期住院的病人一樣需要理髮,保持外觀整潔。 **鄧秉娟 (娟姐)**本是經營理髮店,兩年前,因年紀 漸大,希望找一份時間穩定的工作,於是轉到醫院 工作,替青山醫院的精神病患者和和小欖醫院的嚴 重智障人士理髮和剃鬚。她與同事一行三人,每天 兩間醫院兩邊走,一天共替四十多名病人理髮。

在醫院,理髮是團隊工作,因為有時病人會不合 作,動手動腳或言語思想混亂,要護士和病房助理 協助維持秩序,穩定病人情緒,轉移他們注意力。 娟姐認為替病人理髮的要訣,一言以蔽之:快。 「我一進病房,便已觀察病人頭型,再聽他們的想 法,心中盤算如何剪出一個清爽的髮型。只要病人 一坐下,我便立即手起刀落,快快手完事,由後面 剪起,再剪兩旁,務求即使途中突然要停下來,髮 型也見得人。」 娟姐説:「見他們(病人)由病懨懨的樣子變得精

他們每個儀器部件的功能、運作、消毒及清 潔程序。她説:「操作得多自然容易上手,不 用死記硬背。由於很多儀器使用説明只有英 文版,而在病房工作及溝通時,亦常接觸英 **文醫學用語**,所以我會查字典,從中學會不 少知識。」難怪小梨獲部門委任為兒童及初生 嬰兒深切治療部的「機長」。

另外,小梨又主動自製裝置以減少儀器損 耗。例如用作檢查嬰兒心電圖的儀器連接多 條粗幼不同的電線,容易因打結、拉扯及摺 曲而折斷,於是,她自行製作電線收納槽, 整理電線,一個微細舉動令日常醫療流程更 暢順。在病房繁忙日子,她更會不計較地主

Alice Chan has mastered a wide range of medical instruments since joining public hospital services eight years ago from her previous job in a private clinic. After being trained by nurses, she joined the Paediatric Intensive Care Unit (PICU) and Paediatric Acute Ward and helped with patient admission, bed cleaning and disinfection, handling and operating medical instruments, and replacing tubes of mechanical ventilators for patients.

When Alice first arrived at the hospital, she knew nothing about medical instruments, nor did she know anything about ward operation. All she could do was job-shadowing and taking notes of what nurses taught her. Then she realised the best way to learn was to read through the operation manuals and, where necessary, seek advice from salespeople of various types of instrument to find out their function and operation as well as how to clean and disinfect them. "Most operation manuals are only available in English," she says, "and I also come across many English medical terms at work and during communication with medical staff. I learn a lot by looking up new words in the dictionary."

Nicknamed 'captain' in charge of medical instruments in PICU, Alice protects devices from clutter and wear and tear, and she even organises the wires and cables of the electrocardiogram machine with a DIY cable housing so that the machine operates more smoothly. Alice is well-liked by colleagues as she often helps others out of her initiative, especially when the ward is busy.

「毛髮」可修飾的一對手 A short cut to feeling positive

鄧秉娟 Tang Ping-kuen

三 A 級運作助理 Operation Assistant IIIA 青山醫院 / 小欖醫院 Castle Peak Hospital / Siu Lam Hospital

神,頭髮不再遮蓋眼睛,有自信地與人有眼神接觸 和溝通,我便很有滿足感。」她印象最深刻的是一 名十多歲的女病人,初到醫院時,神情呆滯,不懂 自理,但頭髮又直又漂亮。於是娟姐把她的頭髮修 剪到較容易打理的長度。一個月後,二人相遇, 女孩認得娟姐,還讚她剪的髮型好看呢

Tang Ping-kuen (Kuen) knows that having a haircut doesn't just make you look better, it makes you FEEL better about yourself. Kuen had run her hair salon for years. Two years ago, she wanted more stable working hours, so she took up a new role doing haircuts and shaves for psychiatric and mentally handicapped patients in Castle Peak Hospital and Siu Lam Hospital. Working in a team of three, they provide haircuts for some 40 patients every day.

She says one major challenge of her work is to keep patients calm and sit still with the help of nurses and patient care assistants. "To decide the best haircut for patients, we first examine their head and face shapes the moment we enter the ward and then listen to their views and preferences," she says. "As soon as the patient sits down, I immediately cut his hair from the back, and then do the sides. This ensures that even if the patient moves around or struggles midway, the haircut will still look good."

Kuen finds her job fulfilling. "A fresh new hairstyle revives a patient's spirit and confidence, creating a more positive feeling in eye contact and communication," she explains. She recalls one memorable encounter with a female teenage patient with beautiful long straight hair who had a vacant expression. Kuen cut her hair to a more manageable length. A month later, they met again. The girl immediately recognised Kuen and told her she adored the hairstyle Kuen had given her.

「高手在 HA」 系列 HA's Got Talent Series

Psychologist Carl Jung said, "As far as we can discern, the sole purpose of human existence is to kindle a light in the darkness of mere being."

Dr **Amy Chan** of the Prince of Wales Hospital (PWH) understands better than most people the importance of kindling that light. She is a light artist as well as a Consultant in Anatomical and Cellular Pathology, and believes the worlds of both medicine and art revolve around a person's ability to shed light on a situation in order to see it more clearly. "Light is abstract yet important," she says. "We can't examine patients and medical images without light. In the artistic world, visual elements play a key role. You receive artists' messages through seeing in art forms like painting, theatre, and photography."

Dr Chan's interest in light art began almost 30 years ago after her Hong Kong Certificate of Education Examination. She made her stage debut and won an award in the Hong Kong Urban Council Drama Festival. Her love of drama blossomed during her busy years of medical studies when she took theatre roles as an actor, playwright, and director. As it is not easy for an amateur drama group to invite lighting designer for collaboration, Dr Chan taught herself the techniques she uses and became increasingly committed to her art. After gaining years of lighting design experience, she was admitted to a master degree programme in fine arts in theatre and entertainment arts at the

心理學家榮格説:「人類存在的唯一目的,是在黑暗中燃點光明。」

光明,除了是人類生活不可或缺的元素,也是藝術媒介。

威爾斯親王醫院病理解剖及細胞學系顧問醫生陳碧云 (又名 於是她一邊自學一邊創作,最後愛上這門藝術。擁有 陳一云) 是病理科專家,也是燈光藝術家。她認為醫學和藝 多年燈光設計的經驗後,她2011年考進香港演藝學 術都源於「看見」。「光很抽象,但很重要。我們檢視病人狀 院,修讀舞台及製作藝術碩士,主修燈光設計,鑽研 況或醫學圖像,不能沒有光;而視覺主導藝術世界,如繪 畫、戲劇、攝影等,也是靠『看見』才能接收表演者和藝術 家想傳遞的訊息。」

燈光為藝術媒體

陳碧云解釋,不同藝術形式通過不同媒體,傳遞意念和訊 息。例如繪畫用畫布畫筆、攝影用相機、話劇靠演員、道 具、舞台説故事,而燈光藝術就是利用不同顏色和形狀的 燈光,加上強弱不同的光暗和方向,營造各種氣氛和模擬 場景,從中訴情説意。隨著戲劇發展,現在説故事不只靠 文本,德國劇場學者漢斯 ● 蒂斯 ● 雷曼的代表作《後戲 劇劇場》強調各種藝術元素如燈光、音樂、舞台美術等, 皆可獨立成為主角,製作完整演出,表達主題。

隨燈追夢30年

陳碧云追求燈光藝術之路近30年。她記得,當年會考後的 暑假首次參加市政局校際戲劇匯演得獎,自此迷上戲劇。 即使唸醫科時學業繁重,仍堅持參與,其間她擔任過演 員、編劇、導演等。由於業餘劇團難邀燈光設計師合作,

燈光科技和探索創作理念,提升作品深度。

燈光藝術也照亮了陳碧云選擇病理科的路向。「讀醫 期間,我花多了一年時間唸額外的醫學科學學位課程 (課程現已取消),其間學習做科研及參與劇場工作。 當年的指導老師病理學教授鄒希聖,也曾以病理學知 識製作劇目並親任演員,我覺得他很有型。原來醫學和 戲劇兩者可相容,啟發了我對病理學的興趣。」

反思病患所需

一般人認為醫學是理性思考,而藝術是感性,但對 陳碧云來説,兩者皆可結合。「以我的舞台及製作藝術 碩士畢業作品《病理誌》為例,一小時的燈光表演選址 在威院的病理教學實驗室。我希望透過燈光營造氣氛。 呈現醫學場景,刺激觀眾回想與醫學有關的經歷和感 受,探索醫療系統與現代人之間的關係。對我來說, 在顯微鏡下看病理組織切片,不只反映病人患了哪種 疾病,更重要是細想病人背後所需。醫學和藝術其實 是從不同層面思考人的需要[,]體現對人的關懷吧!」





表達陳碧云對病理學的反思。

Light is used as a medium of expression for

Amy's reflection on pathology in her master

graduation performance Morbid Anatomy.





光影 ● 牛死 Light and darkness • Life and death

12

A pathologist's illuminating journey through the world of light art

Light as an art form

Different art forms convey ideas and messages through different mediums of expression – canvas and pencils for drawing, for instance, cameras for photography, and actors, props, and staging for theatre. Light artists manipulate the colour, shape, intensity, and direction of light to create unique atmospheres and scenes. The principle is summed up by German theatre scholar and

author of Postdramatic Theatre Hans-Thies Lehmann who argues text is not the only element for plot progression. Artistic components such as light, music, and stage setting can also develop a theme and bring performance to life.

Three decades of pursuit of light art

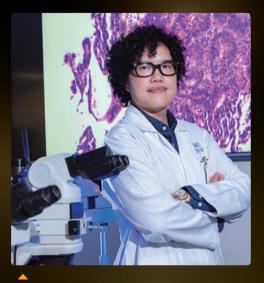
GOOD SHOW 酮大法的 two ess

鎢絲燈 Tungsten light

<u>陳碧云挑選演出時用的燈具講究光的「</u>質地」,她最愛鎢絲燈, 因小時候父親愛用微黃的鎢絲燈泡和光管,令她感覺溫暖。

Dr Chan considers the texture of light when designing a performance. Her favourite medium is tungsten light because it was often used by her father when she was young and gives her a warm feeling.





陳碧云是病理科醫生,主力鑽研頭頸組織病理, 提供病理診斷。

Pathologist Dr Amy Chan investigates and diagnoses in the area of head and neck pathology

Hong Kong Academy for Performing Arts in 2011 majoring in light design. Her light technology knowledge and aesthetic creation were nurtured and demonstrate greater depth in her works.

Light art also led Dr Chan to choose pathology as her specialty. "When I was studying medicine, I spent an extra year in an Intercalated Degree Programme in Medical Sciences, Bachelor of Medical Science (now obsolete), during which I learnt to conduct medical research. At the same time, I carried on my interest in theatre,' she says. "My research mentor Professor John Chow was a very cool person who produced and acted in a drama about pathology. It was then I realised the possibility of getting involved in both worlds - medicine and drama - and I started to develop an interest in pathology."

Patient needs reflected through artworks

It is a common concept that medical professionals rely on reason while arts professionals rely on emotion. For Dr Chan, the two disciplines can comfortably co-exist. "Take my master graduation performance Morbid Anatomy as an example," she says, referring to her one-hour performance staged in the Pathology Teaching Laboratory at PWH which drew on medical scenes and settings. "The show aimed at stimulating the audience to reflect on their own experiences and feelings related to medicine, and explore the connection between the healthcare system and people. When I look at a slice of tissues under a microscope, I do not only think about the disease it reflects, but also the needs of the patient. Medicine and arts both involve deliberation of human needs from different dimensions, and care for humanity."



《病理誌》預告片 Morbid Anatomy Traile



控制器 Microcontroller

燈光藝術除注重意念構思,也需要數學、物理、電氣、電子和編程知識 陳碧云因而考了認可電工中工牌照。圖為她設計的控制器,燈泡連接不同 的插座,製造不同的光亮度、節奏和效果。

Apart from an artistic concept, a light artist requires an understanding of maths, physics, electricity, electronics, and programming. This microcontroller allows bulbs connected to different sockets to produce lights of different levels of brightness, rhythm, and effect.

醫護助圓ДОМ實 俄國基礎勞勞自家

醫療護理不分種族疆界。北大嶼山醫院跨專業醫療團隊本著「以病人利益及 意願為先|的信念,幾經波折,排除萬難,最終成功協助留港診治逾四年的 俄羅斯病人回家療養。

2015年5月29日,一名俄籍婆婆 Lina(化名)乘長涂機到香港國際機場轉機 期間,因嚴重血栓塞昏迷,被送往瑪嘉烈醫院搶救和接受危重病症護理。婆 婆女兒曾赴港探望,惟婆婆當時病況不穩,不宜離港,女兒亦因經濟及家庭 困難,未能長期留港照顧母親,承諾稍後再來港接母歸家。

女兒食言 婆婆失望

一年多後,婆婆病情穩定,被轉送北大嶼山醫院延續護理病房,接受康復護 理和制定離院計劃。可惜,女兒最終沒兑現承諾來港。

病榻中的婆婆常説「Дом」,俄文意思是「家」。內科及老人科顧問醫生 **高志輝**坦言:「將心比己,流落異鄉多時必想回家,何況她有病在身。 我們相信凡事以病人利益和意願為先,才是最好的治療和關顧,所以 團隊沒有放棄,積極為婆婆圓回家夢。」

由於血栓塞導致腦缺氧,婆婆喪失手部活動功能,兩腿能輕微活動, 但需長期卧床。她亦有吞嚥障礙,説話口齒不清等狀況。幸得團隊成 員,包括醫生、護士、物理治療師、職業治療師、醫務社工、基督教 院牧部、天主教牧靈部、營養師及病人服務助理等,從不間斷地為她 治療、轉身、胃管餵食、復康、洗澡、剪髮及支援情緒等,減少她感 染或出現壓瘡的可能。同時,精神健康方面,在她長期沒有親人探望 的情況下,也維持情緒平穩。

團隊自創妙法解鄉愁

職業治療師吳海滴憶述在初期的認知治療過程中,發覺婆婆對俄國節 目和音樂特別有反應,於是透過圖像並配以簡單俄文的溝通板解説各 種治療內容、護理程序和適應病房生活;職業治療師亦設計俄文活動 插圖卡和日曆,一解婆婆思鄉之情。此外,天主教牧靈部安排俄籍神 父探望婆婆,給予精神及信仰支持。日子久了,婆婆漸漸開懷,更會 不時整古作怪,與醫護人員互動或簡單溝通。

另一邊廂,醫務社工一直尋求俄羅斯領事館協助,安排婆婆回國療養。醫務 社會服務部主任**葉麗芳**表示,雙方數年間多番以電話及書信溝通,緊貼婆婆 健康狀況及商討可行的離院方案。他們又安排婆婆與領事館人員視像通話 讓婆婆親自表達回家的期望。

2019年4月終於有好消息。領事館通知醫務社工,當地一個宗教團體願協助 眾籌婆婆回國款項,並安排所需療養地方及服務。同年7月3日,醫護列隊 歡送婆婆,婆婆用廣東話説:「多謝你哋,拜拜!」。簡單的一句道謝告別, 卻暖在醫護的心坎中。



北大嶼山醫院跨專業團隊説,不管病人是甚麼國籍,都應得到同等專業治療和貼心照顧。 The NLTH team believes every patient has the right to receive quality treatment and care, irrespective of their nationality.



Care and humanity know no borders. It was movingly demonstrated by the dedicated care of a multi-disciplinary team at North Lantau Hospital (NLTH) who nursed an elderly Russian patient and overcame numerous difficulties over four years before eventually returning her home.

was unfit to be discharged.

Mother let down by daughter's empty promise

Homesick and far from home, Lina kept saying the Russian word 'Дом', meaning home, "Put yourself in the patient's shoes. No one wants to be left alone in a strange country, particularly when they are unwell," says Dr Ko Chi-fai, Consultant of Medicine and Geriatrics Department. "We believe patient-centred care is in the best interest of the patient, so we did our best to keep her dream of returning to homeland alive."



A happy homecoming for a Russian patient stranded far from home

The patient – known as Lina (pseudonym) – collapsed with deep vein thrombosis while in transit in Hong Kong International Airport on 29 May 2015 and was sent to Princess Margaret Hospital for resuscitation and treatment. Her daughter flew from Russia with the intention of bringing her home but had to leave without her for family and financial reasons when Lina's condition

A year later. Lina's condition was stabilised and she was transferred to NLTH for rehabilitation and discharge but sadly her daughter and family members never returned for her.

As a result of cerebral anoxia – reduced supply of oxygen to the brain – caused by deep vein thrombosis, Lina suffered from the loss of hand function, reduced lower-limb movement, had slurred speech and difficulty swallowing. To reduce the risk of infection and development of pressure sores, Lina was provided with comprehensive, holistic care including quality treatment and rehabilitation. frequent reposition, nasogastric tube feeding, bathing, haircutting and emotional support from a multi-disciplinary team including doctors, nurses, physiotherapists, occupational therapists, medical social workers, Chaplaincy, Catholic Pastoral Care Unit, dieticians, and patient care assistants.

Curing homesickness

Occupational Therapist Heidi Ng noticed early in her treatment of Lina that she was more responsive to training materials that contain Russian TV programmes and music. Heidi came up with the idea of a special communication board to overcome the language barrier. She also printed a set of tailor-made pictorial activity cards and a calendar in simple Russian on a display board. The Catholic Pastoral Care Unit invited a Russian priest to visit her and help relieve her homesickness. Team members saw Lina become more cooperative and willing to take part in rehabilitation training, even joking and playing tricks on them.

Medical social workers meanwhile contacted the Russian consulate for assistance. Officerin-Charge of the Medical Social Services Unit Annie lp says that they maintained close contact and discussed feasible repatriation plan with the consulate throughout Lina's treatment via phone call and correspondences. They also arranged a video call in which Lina expressed her desire to go home directly to the consulate

Good news came in April this year. The consulate told Lina's social worker that a church group in Russia had launched a crowdfunding appeal to raise money for her repatriation along with the arrangement of a convalescent home and care services

in Russia. Three months later, on 3 July, the moment finally came for Lina to leave. As the team gathered to bid farewell to Lina, who arrived in Hong Kong four years ago as a stranger and left as a dear friend, they were close to tears when she smiled fondly and said to them in Cantonese, "Thank you and goodbye.'



臨行密密plan Prepare for homecoming

團隊花了兩個月籌備婆婆的離院安排,確保她安全 抵家。

The multi-disciplinary team spent two months making discharge arrangements for Lina to ensure her journey home was a safe and happy one.

運送安排 Transport

□兩名俄國醫療人員提早一天到港從醫院接走婆婆 全程不離病床運送,直至送抵俄羅斯

Two Russian medics arrived in Hong Kong a day ahead of departure to collect Lina from the hospital and escort her home

□ 俄羅斯領事館安排醫療運送機位及沿途所需醫療儀器 A scheduled flight with medical equipment was arranged by the Russian consulate

醫療紀錄及物資 Medical records and supplies

- □ 提供病歷、診斷、用藥報告、所需醫療儀器、現時服 用藥物及治療的資料,包括轉身次數和復康治療細節 Prepared medical records, diagnoses, medication reports, details of the medical equipment required, and information about Lina's current medication, treatment, and rehabilitation programme
- □ 供數月服用的藥物份量

Enough medicine was prepared to last her for a few months upon arrival

食物及衣物 Food and clothing

■ 詳列餵食方法及食物等資料,包括種類、營養比例及 份量

Provided details of what food to give Lina, and in what quantities and the feeding method

- □ 準備回家途中的流質食物
- Ensured Lina had an adequate supply of liquid food for the journey
- □ 準備充足尿片
- Prepared adequate diapers
- □ 由紅十字會贈送新衣服及保暖褸 Prepared new clothes and a warm coat donated by the Red Cross

團隊精心製作俄文活動插圖卡和日曆,讓婆婆 適應護理程序和病房生活。 Ingenious healthcare team made flash cards in Russian to help Lina understand the nursing procedure and adapt to her situation



一 App 在手 連繫 HA 老友 HR App keeps HA retirees connected

人力資源應用程式 (HR App) 退休職員版今年5月已面世,退咗休嘅同事以後可以繼續用 HR App 瀏覽衣食住行 優惠及自願牙科保健計劃等實用資訊,同我哋一齊緊貼 HA 最新嘅資訊!今年第四季起更可翻查個人健康紀錄 同預約職員診所。另外,現職同事只要喺今年10月31日或之前,邀請三位或以上退休員工安裝程式,即可參加 港幣100元超市禮券大抽獎,名額20個,快啲行動啦!

All retirees can stay up-to-date with HA's latest news through the HR App retiree module since May 2019. The App allows retirees to access useful information including discount offers of dining, travel and voluntary dental schemes. Access to own health record and appointment booking for staff clinics will be available from coming fourth quarter onwards. Let's help spread the good news to retired colleagues! Invite three or more retirees to download the App by 31 October this year and enter a lucky draw to win a HK\$100 supermarket voucher (20 winners). Act now!



「邀友有賞 | 獎勵計劃 Details of the scheme HR App 退休職員版 HR App retiree module

Mr. Char

Please click to provide your opinion

SALE





最喜愛的歌曲,這就是人生最美的圖畫。



Express news

shorten patients' queuing time

「一站式電子服務站」登記快、繳費易

Quick registration and payment through one-stop electronic kiosks

現時13間公立醫院已安裝超過40部新嘅「一站式電子服務站」,更多新機將陸續安裝以替換舊 有型號,為市民同職員提供更快捷嘅登記同付款渠道。合資格人士可憑身分証、預約便條或 門診藥單登記同埋繳交門診和藥物費用。至於公務員、醫管局職員及其合資格家屬和醫療費用 豁免人士,只需要掃瞄身分証核實資格,就可以喺專科門診登記。另外,公立醫院繳費處新增 設日漸流行嘅電子錢包繳費功能,市民可透過手機以支付寶或微信支付嘅二維碼繳費。

Over 40 new one-stop electronic kiosks are installed in 13 public hospitals, with more new kiosks replacing the old models soon, providing patients and staff with a quicker way for registration and payment. Eligible persons can register and pay specialist out-patient fees and drug charges by scanning HKID card, appointment slip or prescription. Civil servants, HA staff, their eligible dependants, as well as medical fee waiver recipients can simply scan their HKID card for eligibility check and register. Besides, patients can pay with electronic wallets e.g. Alipay or WeChat Pay at main shroff office of public hospital by presenting QR code on their mobile phones.

「一站式電子服務站」預計在2019/20年度推廣至20間醫院,節省病人排隊輪候時間。 One-stop electronic kiosks will be extended to 20 hospitals in 2019 / 20 which will



「電子服務站」簡介 New electronic kiosk

范鴻齡將任 HA 新主席

Henry Fan will be the new leader of Hospital Authority

登登登登!醫管局新一屆主席揭盅,擁有多年管理及機構 管治經驗嘅**范鴻齡**先生將於今年12月1日走馬上任,任期 兩年。

呢位候任主席喺舊年加入醫管局大會,《協力》今年3月同 佢做咗個專訪。當時佢話希望到醫院唔同角落,了解醫院 最真實嘅一面,急前線之所需,同大家一齊共度難關。

正如現任主席梁智仁教授所講,Helen 相信候任主席以其 專業知識及出色嘅領導才能,必令醫管局有所裨益,帶領 醫管局邁向30周年,再創高峰!

醫管局候任主席范鴻齡擁有豐富嘅管理及機構管治經驗,積極 參與公共事務,盡展領導才能。

Henry Fan, the HA Chairman designate, will bring with him a wealth of management and corporate governance experience in many board of aspects. He has also demonstrated leadership and full commitment to public service

Hot news from the oven: Mr Henry Fan will succeed Professor John Leong as HA's new Chairman starting from 1 December this year.

Joined the HA Board last year, Mr Fan is a prominent leader with remarkable management and corporate governance experience. In an interview with HASLink in March, he expressed the wish to access to every corner in hospital to have better understanding of Hong Kong's public healthcare service. And with enhanced communication, he hopes to overcome challenges and solve problems with staff together.

As current Chairman Professor John Leong says, Mr Fan's professional knowledge and outstanding leadership will greatly benefit HA and enable the organisation to scale new height while stepping its 30th year.

生命的圖騰

每個生命都是一個故事。一天,我們收到醫院腎科顧問醫生馮醫生及顧問護師 李姑娘的轉介。一名末期腎衰竭的病者想回家,並簽署了非住院病人「不作心肺 復甦術」的文件,期望在餘下短暫的日子,可在家中與家人度過。她希望社康護 理部「護養在家」團隊可在這段日子,提供家中支援護理及照顧。憑着專業精神 團隊把病人接過來,與家人攜手陪伴照顧婆婆。

回想起第一次家訪時,看見客廳放着一部格格不入而且殘破不堪的縫紉機,再看 見婆婆慈祥白皙的容貌,襯托著疲弱的身軀及冰冷的四肢躺在床上,令人頓生憐 惯。後來婆婆的兒女訴説着縫紉機的歷史,原來那是見證著婆婆年輕時的奮鬥歷 程及為一家人付出的血汗,澎湃的愛突破了一切困難及生命的局限。因此,家人 在最後數星期,即使日夜輪班看顧婆婆也在所不惜。憑着愛,大家涵養出勇敢面 對困難的勇氣,也鼓勵婆婆積極地活著。

何謂病者最後最美的旅程呢?各人心中自有答案。能帶給病人、家人安慰及 認同的,還有馮醫生激勵家人的那句話:「婆婆所行的路,確實是病人最正確的 選擇與旅程。」當婆婆走到人生最後階段,家人期望有誰 能夠幫助他們呢?我們彷彿成了他們的守護天使,使他們 更有信心地接婆婆回家,烹調婆婆最喜歡的食物,唱婆婆

家人在感謝卡寫道:「感激社康護理人員細心、溫暖及充滿關懷的家訪, 幫助家人解決在家中照顧母親遇到的種種困難和問題,也提供很多技巧, 使母親得到更舒適的照顧,讓她在人生最後一段路程上,能在家人的陪伴 下安詳離世,心滿意足。」

大愛無疆,婆婆生命的圖騰,深深烙印在家人的心中;醫護團隊專業的圖 騰,也深深烙印在同事及公眾心中。

人只活一次,生命總有一天消失。然而,有了愛就有了一切,只有「愛」 及「專業」這兩個圖騰,才可經歷時代磨煉,歷久不衰,薪火相傳

社康護理服務資深護師

瑪嘉烈醫院





莊義雄重組聯網「出埃及記」

Cluster re-delineation compared to Exodus

新任博愛醫院和天水圍醫院行政總監莊義雄 醫生,在醫管局服務20多年,曾效力近20間 醫院,覆蓋六個醫院聯網,擅於在不同文化 或背景的醫院求同存異,取長補短,發揮所 長。近年他最深刻的經驗是2016年九龍中和 九龍西醫院聯網界線重組。

重組前,他的工作橫跨兩個聯網,同時擔任 九龍中的香港佛教醫院和當時仍是九龍西的 東華三院黃大仙醫院行政總監。重組後更接 管隔鄰的聖母醫院,三間醫院雖位置相近, 但背景、管理層及服務各異。最後莊醫生理 順三院的工作流程,靈活調配人手和資源, 建立互相支援的文化。他形容重組過程艱辛, 帶領同事衝破萬難,猶如「出埃及記」,終於 以出色團隊精神帶領黃大仙醫院順利過渡至 九龍中聯網,惠及當區病人。

「今後我將善用新界西聯網的高效團隊精神, 多聆聽各方意見,了解同事的關注點。」為配 合元朗和天水圍區的發展,他與團隊會繼續 開展醫院服務,包括增加病床、手術和專科 門診等服務。

The new Hospital Chief Executive (HCE) of Pok Oi Hospital and Tin Shui Wai Hospital Dr **Chong Yee-hung** has served in HA for over 20 years during which he has worked in almost 20 hospitals

covering six clusters. Diverse working experiences have given him the niche of adapting to characteristics and operation modes of individual hospitals, while drawing on the unique strength of each hospital. His most indelible memory comes from cluster boundary re-delineation of Kowloon Central Cluster (KCC) and Kowloon West Cluster (KWC) in 2016.

Being the HCE of two hospitals from different clusters at the same time, namely Hong Kong Buddhist Hospital (HKBH) from KCC and Tung Wah Group of Hospitals Wong Tai Sin Hospital (WTSH) from KWC, Dr Chong has reengineered services of HKBH, WTSH and later the neighbouring Our Lady of Maryknoll Hospital (OLMH) after

he took up leadership of OLMH. Dr Chong describes the process of re-delineation is as difficult as the journey of Exodus. But through flexible deployment of manpower and streamlining of services, he has built up a culture of collaboration and mutual support among all three hospitals, benefitting patients in the district.

"Excellent team spirit in New Territories West Cluster is an edge," Dr Chong says. He pledges to seek advice from all parties and address staff concerns. To complement the community development of Yuen Long and Tin Shui Wai, he and his team will offer more hospital services, including additional beds and operation sessions, and specialist out-patient clinic service.

莊義雄醫生放假時喜歡拍攝街景,圖為攝於波斯 尼亞首都的薩拉熱窩冬季奧林匹克會場。 Dr Chong Yee-hung is fond of street photography at his leisure time. One of his shots is the Winter Olympic venue in Saraievo, Bosnia





楊諦岡建最強團除

New director vows to build a strong team

今年8月接任醫管局聯網服務總監的楊諦岡醫生,1991年加入醫管局不久,因家人的移民計劃而轉到 私家執業,準備離港。當年醫管局剛成立,推動新文化新服務目標,市民都轉到公立醫院就診。他憶 述當時私家診所求診人數大跌,形容是「朝三暮四」(日間三個病人、晚上四個病人),甚至「出前一叮」 (一天只有一個病人)。

家人最後打消移民念頭,三年後楊醫生亦重返醫管局。他説那些在外的歲月,讓他了解公私營醫療系 統的異同,拓寬視野,開放思維。



在今日的新崗位,他將從宏觀層面考慮所有聯網服務 除顧及服務的主要表現指標外,也要從同事角度出發。 制定服務方向,讓他們有空間及機會盡展所長。他期 望透過繼續培訓挽留人才;循自選兼職招聘計劃及海 外招聘有限度註冊醫生,增加人手;以及促進公私營 協作等,紓緩同事工作壓力,建立優秀的專業團隊。

楊諦岡醫生(右二)認為多與前線團隊溝通和參與員工活動 是建立互信的好方法。

Dr Deacons Yeung (second from right) believes continuous communication with frontline teams and active participation of staff activities are effective in building mutual trust.

Dr **Deacons Yeung**, new Director (Cluster Services) since August, first joined HA in 1991. He left HA shortly after for private practice to prepare for emigration of his family. During the era when HA was first established, new service culture was promoted in public hospitals with new service pledges, attracting many patients. He recollects that the number of patients attending private clinics plunged drastically then. A private doctor might see only a handful of patients a day, say three patients during the day and four at night, sometimes as few as only one patient a day.

Dr Yeung's family opted out emigration and he re-joined HA three years later. He still values the experience in private practice which broadened his horizon and made him understand the difference between public and private healthcare systems.

The new Cluster Services Director believes that a macro perspective is crucial in his new role. Apart from delivering key performance indicators of clinical services, he will listen to and respect colleagues' views and allow flexibility and opportunity for them to develop their potentials. Dr Yeung is committed to developing a professional and quality team. His target is to retain talent through training and development; increase manpower through locum scheme; recruit non-locally trained doctors with limited registration; and relieve workload of frontline staff by further fostering publicprivate partnership.

CORNER

STAFF

問:有人說,當離職或退休後,若專業監管團體對我之前在醫管局

的工作進行紀律研訊,我不受保險保障。 Q: I was told that staff who retired or resigned from HA are not covered under DP Insurance for complaints related to incidents happened during their service in HA? Is it true?

答:不是。只要首次

收到研訊通知書的日期是2018年12月1日 (保險實施當日)或之後;而且案件符合受保範圍及 條件(即不涉及不誠實、詐騙、惡意或畜意違法的行 為、性騷擾、性侵犯及醉洒), 退休或辭職的專業人員 仍然受保險保障。

A: No. Staff retired or resigned from HA is still covered by the DP Insurance if a written notice of the inquiry is first received on or after 1 December 2018, the inception date of the DP Insurance. Moreover, cases should fall within the scope of the insurance policy. i.e. not related to dishonest or fraudulent acts or malicious or intentional breach of law, sexual abuse or molestation, and intoxication

- 問:我是醫管局的臨床心理學家,亦是香港心理學會的成員。如果協會 通知我有關違反該會專業操守的投訴,我是否受保險保障?
- Q: I am a clinical psychologist of HA and a member of the Hong Kong Psychological Society. If I receive a letter from the Society notifying me about a complaint that I am in breach of the Society's code of professional conduct. will I be covered under the DP Insurance?
- 答:只有在香港設立法定專業監管團體及註冊制度的專業,並在醫管局工 作才受保。目前本港法律仍未就「心理學家」設立法定專業註冊制度; 再者,香港心理學會不是保險範圍所認可的專業監管團體,所以你不 受此保險保障。
- A: Only professions registered and regulated by an official body in Hong Kong, and practise in HA, will be covered by the DP Insurance. However, there is currently no legal requirement for a person to register in order to practise as a psychologist in Hong Kong. Also, the Hong Kong Psychological Society is not an official body under the DP Insurance. Therefore, you are not covered by the insurance policy.

「專業紀律研訊個人保險」解惑釋疑慮 **Clear doubts on 'Disciplinary Protection Insurance'**

醫管局去年12月1日起,為合資格臨床及非臨床專業人員購買 「專業紀律研訊個人保險」。同事若因執行醫管局指派的職務, 被專業監管團體如香港醫務委員會和香港護士管理局,開展專業 紀律研訊及相關程序,當中涉及的法律代表費用、專家證人費 等,將由保險公司支付。(協力)今年1月已簡介相關內容,有 見同事仍對保險內容存疑,所以我們特意再次請來總辦事處人 力資源部同事詳盡解説以釋除疑慮。

問: 誰會處理同事的電話或電郵查詢,及跟進案件 Q: Who will answer calls from hotline or emails and follow up the cases?

答:透過致電2864 5333 或以電郵 (HADP@jltasia.com) 提出的查詢和個案跟進,將由認可索賠事務管理人 「恰和保險顧問有限公司」負責。他們會處理整個 賠償程序,並提供相關專業意見。另外,亦有保險 公司的法律團隊透過免費諮詢熱線,為受保人 提供相關法律意見。詳情請參閱已上載至醫管局

A: The approved Claims Administrator Jardine Lloyd Thompson Limited (JLT) is responsible for the entire claims process and provide professional advice. They will handle enquiries and follow up cases raised via telephone at 2864 5333 or email HADP@jltasia.com. There are also free helplines answered by lawyers of the insurance companies to provide legal advice. Please refer to the fact sheet available on HA website for details.

Since 1 December 2018, Hospital Authority (HA) has implemented Disciplinary Protection (DP) Insurance policy to cover eligible clinical and non-clinical professionals. The insurer shall pay on behalf of the insured person all legal representation expenses incurred in disciplinary inquiry conducted by the corresponding official body in Hong Kong, such as the Medical Council of Hong Kong and the Nursing Council of Hong Kong. Further to HASLink's report in January 2019, questions have been received from potential users on DP Insurance. HA Head Office (HAHO) Human Resources Division is invited again to clarify several common doubts about DP Insurance.

:保險公司是否會向醫管局披露我的

Q: Will the insurer disclose to HA detai of the inquiry of which I receive written notice from an official body?

答:不會。為保持中立,怡和保險顧問有限 公司及承保人不會向醫管局透露個別紀律 研訊的內容。但若同事對保險公司的服務有 任何疑問,可致電2300 6988 向醫管局人力 資源部職員福利組求助。

A: No. To maintain neutrality, JLT and the insurer will not disclose details of individual cases to HA. However, if there is any enquiry on JLT's service, you may contact HAHO Staff Benefits Team at 2300 6988 to facilitate appropriate follow-up.

問:當我收到專業監管團體的研訊通知書,該怎樣處理 Q: What should I do if I receive a written notice of an inquiry from an official body?

> 答:你應盡快以電郵 (HADP@jltasia.com) 或致電 2864 5333 通知怡和保險顧問有限公司, 他們會在整個研訊過程為你提供支援及 建議,包括選擇律師團隊、提供相關 法律文件等。

> > A: You should give JLT a written notice via email HADP@jltasia.com, or contact them on 2864 5333 as soon as reasonably practicable. JLT will provide support and guidance to you to deal with the inquiry throughout the process, for instance selecting a panel lawyer and providing relevant legal documents.

快閃,一場寧靜之旅! Serenity through magical images

圍牆外,風雨飄搖,一幅會心的照片,有如一碗熱哄哄的 心靈雞湯。由同事組成的香港醫院攝影聯會正在多間公立 醫院展出多幅感動人心的照片,高水平之作,盼可讓同事 頃刻忘憂,尋回最簡單的寧靜。 A moment of serenity is much needed today especially under the current turmoil in Hong Kong. Roving exhibition of the Hong Kong Federation of Hospital Photographic Societies held in different hospitals shows off members' works and provides a mind sanctuary for onlookers. Watch out for the dates and don't miss it.

生活點滴 (英國倫敦) That's life! (London, Britain) 林智穎 Flori Lam 廣華醫院 Kwong Wah Hospital





漓江之夫(中國湖南) Fisherman in a boat (Hunan, China) 黎瑞玲(已退休) Karen Lai (retired) 威爾斯親王醫院 Prince of Wales Hospital



冬雪晨曦(中國東北) Dawn of winter (Northeastern Provinces, China) 羅偉棠(已退休) Law Wai-tong (retired) 伊利沙伯醫院 Queen Elizabeth Hospital



愛回家之小企鹅(澳洲塔斯曼尼亞) Going home (Tasmania, Australia) 潘南平 Peter Poon 醫院管理局總辦事處 Hospital Authority Head Office



 深海「慢」遊(菲律賓阿尼諾)
Deep sea touring (Anilao, Philippine)
霍欣欣 Fok Yan-yan 伊利沙伯醫院 Queen Elizabeth Hospital

展覽日期及地點 Roving exhibition

日期 Date	地點 Venue
16/9 - 13/10	屯門醫院正座地下大堂入口 Tuen Mun Hospital: G/F, Main Block Front Entrance
14/10 - 10/11	東區尤德夫人那打素醫院東座大樓地下 Pamela Youde Nethersole Eastern Hospital: G/F East Block
11/11 - 8/12	將軍澳醫院日間醫療大樓地下 Tseung Kwan O Hospital: G/F Ambulatory Care Block 聯合醫院 S 座地下大堂 United Christian Hospital: G/F Block S Lobby 靈實醫院地下大堂 Heaven of Hope Hospital: G/F Main Block
9/12 - 4/1/2020	瑪嘉烈醫院 H 座地下大堂 Princess Margaret Hospital: G/F, Block H Lobby
CONTRACTOR AND A DECK	이 가지도 한다. 그렇게 이 바람이는 그는 것이 가지 않는 것을 것을 수 있는 것을 하는 것을 위해 하는 것을 수 있는 것을 가지 않는 것을 하는 것을 하는 것을 하는 것을 하는 것을 수 있다. 것을 하는 것을 하는 것을 하는 것을 수 있는 것을 하는 것을 하는 것을 수 있다. 것을 하는 것을 하는 것을 수 있는 것을 수 있는 것을 수 있는 것을 하는 것을 수 있다. 것을 하는 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있다. 것을 하는 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있다. 것을 것을 수 있는 것을 수 있다. 것을 것을 수 있는 것을 수 있다. 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있다. 것을 것을 것을 것을 수 있는 것을 수 있는 것을 수 있는 것을 수 있다. 것을 것을 것을 것을 것을 수 있다. 것을 수 있다. 것을