



2022

Annual Report



Acknowledgement

Since 2014-15, the **Hospital Authority Quality and Safety Annual Report** (previously named “Hospital Authority Quality and Risk Management Annual Report”), is published to highlight the major quality and safety issues, effective risk reduction initiatives and innovative learning and sharing platforms from each of the seven Clusters, as well as key initiatives from Quality and Safety (Q&S) Division of the Hospital Authority Head Office (HAHO).

Apart from demonstrating our continuous hard work on attaining better quality of healthcare services, we sincerely hope that our healthcare professionals could gain invaluable insights from others’ experiences and achieve even better results in their respective echelon.

Having taken into account the World Health Organization (WHO)’s latest advice on the Coronavirus Disease 2019 (COVID-19) epidemic situation (i.e. COVID-19 epidemic situation no longer constitutes a public health emergency of international concern) as well as having assessed the latest local situation, risks and mutation of COVID-19 strains, the Government announced on 30 May 2023 the lowering of the response level under the Preparedness and Response Plan for Novel Infectious Disease of Public Health Significance from the Emergency to Alert level with immediate effect. The lowering of the response level from the Emergency to Alert level marks a major milestone in Hong Kong people’s fight against the epidemic over the past three years. Admirably our staff have been unwavering in their commitment, to keeping patients safe and co-workers supported. We would like to take this opportunity to express our gratitude to all colleagues for the strenuous effort and hard work in combating the epidemic.

We are grateful to the staff who have been working hand-in-hand with us and strived their best endeavor to contribute to a safer and higher standard of healthcare in the Hospital Authority. Thanks to the colleagues who have made the publication of this report a success.

Quality and Safety Division
Hospital Authority

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Opening Message

Dear Colleagues,

“Maximizing the Potential of AI in Patient Safety: Opportunities and Challenges”

As some of you may know, Murphy’s Law states that *“anything that can go wrong, will go wrong”*. This is a sobering reminder of the inherent risks and complexities involved in healthcare delivery. However, I believe that we can minimize these risks and enhance patient safety through the application of artificial intelligence (AI) tools in various impactful areas in the Hospital Authority (HA).

With no doubt, AI has the potential to fundamentally revolutionize healthcare by improving diagnosis, treatment, and patient outcomes. Riding the wave of ever-changing technology advancement, AI algorithms can analyze medical images to detect abnormalities that may be missed by human eyes, leading to earlier and more accurate diagnoses. AI can also help healthcare providers identify patients at risk of adverse events, such as falls or infections, and take proactive measures to prevent them.

Having said that, we must also be mindful of the challenges and ethical considerations involved in the adoption of AI in healthcare. We must ensure that AI is used ethically and transparently, and that patients and healthcare providers are fully informed and engaged in the process.

In HA, we are committed to upholding service quality and standards, and enhancing patient safety through the application of AI. HA has implemented AI-powered systems in areas such as radiology, pathology, and emergency medicine. For example, chest X-ray (CXR) localization (for mass/nodule) with AI result image has been materialized to improve data driven care and result visibility; auto-flag lab result for hepatitis B virus (HBV) deoxyribonucleic acid (DNA) has been brought in to relieve frontline workload and improve clinical quality; and AI prediction on inpatient discharge and unplanned readmission has been implemented in all hospitals to serve as a decision support tool in Capacity and Clinical Command Center. All of which are the culmination of thoughts and aspirations of frontline professionals, executives from Clusters and HAHO, and a range of stakeholders who are continuously exploring new ways to leverage AI to transform and reorganize the services, improving efficiency to reduce the risk of adverse events, and minimizing healthcare disparities to improve patient outcomes.

Looking ahead, the application of AI portrays the future service directions and development of the hospitals in HA. But we cannot do this alone. It is important to develop robust governance frameworks for the adoption of AI in healthcare, and to involve stakeholders from across the healthcare system in the design and implementation of AI systems. It is also important to prioritize transparency, accountability, and patient-centeredness in the development of AI. In this connection, we must work collaboratively with our frontline partners to share best practices and lessons learned, and to develop innovative solutions that address the unique challenges in our respective healthcare systems.

As Shakespeare wrote *“there is nothing either good or bad, but thinking makes it so”*. Let us think positively and proactively about the potential of AI to enhance patient safety, and work together to shape up this vision.

Dr Michael WONG

Director of Quality and Safety
Hospital Authority Head Office



● Hospital Authority Head Office



Clinical Effectiveness and Technology Management

Neurosurgical Outcomes Monitoring and Improvement Programme

Introduction

The aim of the Clinical Outcomes Monitoring Programme (COMP) is to promote continuous quality improvement. The Neurosurgical Outcomes Monitoring and Improvement Programme (NOMIP) is a COMP of neurosurgical operations in HA public hospitals. Through NOMIP, we aim to monitor and improve the outcomes of neurosurgical operations and advise on the strategic planning of neurosurgical services in HA.

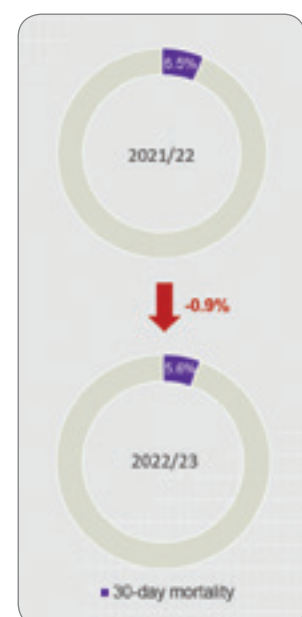
Background

With the support of the Coordinating Committee of Neurosurgery (COC(NS)), the Neurosurgical Outcomes Monitoring Working Group (the Working Group) has been conducting annual comparative audits since 2015. Between 2015 and 2021, six comparative audits of neurosurgical outcomes were conducted, namely ventriculoperitoneal (VP) shunt (2015/16), external ventricular drain infection (2016/17), ischaemic stroke (2017/18), intracranial haemorrhage (2018/19), idiopathic normal pressure hydrocephalus (2019/20) and geriatric traumatic brain injury (2020/21). In order to comprehensively review neurosurgical performance, it was recognised that a COMP would be preferable to annual comparative audits. The Working Group had successfully developed a bespoke HA-wide 30-day risk-adjusted mortality model in 2021 in collaboration with an external statistical analysis provider. Building on this, a pilot study of NOMIP with 2-year mortality analysis was conducted in 2022 with promising results.

Project Highlights

Pilot Study of NOMIP

Based on the experience of the annual comparative audits and using data collected from all neurosurgical units, it was determined that there were sufficient case numbers, event rates and common characteristics for mortality to support a 30-day risk-adjusted mortality model. Of the 1,482 elective and 2,069 major and ultra-major emergency neurosurgical operations performed between 1 April 2020 and 31 March 2021, the 30-day risk-adjusted crude mortality model demonstrated an overall mortality of 6.5%. In 2022, the 30-day risk-adjusted mortality model for neurosurgical procedures performed between 1 April 2021 and 31 March 2022 was successfully built with excellent discriminatory performance (C-index = 0.895). A reduction in 30-day mortality was observed from 6.5% (2020/21 data) to 5.6% (2021/22 data). The 2-year risk-adjusted 30-day



mortality model further confirmed the high stability of this prediction model. The pilot study provided the basis for further development of NOMIP. The model results would help neurosurgical departments identify their unique systemic and neurosurgical issues and potential areas for improvement.

Way Forward

The development of NOMIP has demonstrated that it is possible to build on the experience of comparative audits to develop a promising predictive model for a COMP with years of accumulated data. To move forward, the Working Group would formulate the data definition manual and work with the Information Technology team to develop data collection templates for data automation to facilitate the implementation of NOMIP. In addition, the NOMIP Working Group had been proactive in exploring morbidity analysis to broaden the application of the data and set the direction for neurosurgical outcomes monitoring and improvement.



Infectious Disease Control Training Centre

Infection Control Seminar and Forum during COVID-19 pandemic

Introduction

Infection Control Branch (ICB)/Infectious Disease Control Training Centre (IDCTC) organizes seminars and workshops on emerging and re-emerging infections to provide an easily available platform for the exchange of knowledge and experience for professional development in infection control and infectious disease management.

2022 was a challenging year, as the local COVID-19 situation was exacerbated by new variants of SARS-CoV-2. In the midst of the pandemic, ICB / IDCTC continued her role to conduct relevant training seminars and forums for healthcare workers to enhance their knowledge on the advances of diagnostics, treatment and prevention of infectious diseases.

Project Highlights

The themes of the seminars are set in such a way to cover different areas that health professionals may face in their daily practice. For example, *“Epidemiology and Outbreak Management”* aimed to provide the audience with an understanding of the basic principles of epidemiology and the steps involved in outbreak investigations; *“Advancement in Molecular Diagnosis”* was tailored for staff involved in the use or performance of diagnostic tests in laboratories and at points of care; Seminars on Monkeypox (Mpox), Malaria and Poliomyelitis addressed the threats of importation of these infectious agents, so that health workers would have a clearer understanding of the key features of clinical management, infection prevention and public health surveillance, and be better equipped to deal with any cases they may encounter.



Dr Kin-hang KUNG, Principal Medical & Health Officer (Surveillance), Communicable Disease Branch, Centre for Health Protection (CHP)

Dr Hong CHEN, Consultant i/c, IDCTC, HA/Head, ICB, CHP

Dr Samson WONG, Clinical Associate Professor of Practice, Department of Microbiology, The University of Hong Kong

Dr Leo LUI, Associate Consultant, IDCTC/ICB

(From left to right)

In each training seminar and forum, renowned international and local speakers were invited to share their views on related topics. Due to the pandemic, international speakers had to join by Zoom, although some local speakers were able to join on site. Following the presentations, speakers would gather for the Question-and-Answer (Q&A) session, which served as a good opportunity for participants to raise questions and engage speakers in a fruitful discussion. In the process of asking and answering, new perspectives, clinical pearls and practical tips may be shared which could potentially be useful for improving practice and providing new ideas for shaping public health policies. These seminars were well received, with more than two thousand health professionals attended in total.

Way Forward

With the easing of COVID-19 situation and the return to normalcy, we expect to resume full-scale face-to-face seminars and workshops in the near future. A hybrid mode (on site + online) may become the new standard mode of training delivery to provide greater flexibility and facilitate a greater number of interested participants to attend our training seminars and forums.

Surveillance on MRSA New and Bacteremia Cases

Introduction

Methicillin-Resistant *Staphylococcus Aureus* (MRSA) is a multidrug-resistant organism (MDRO) that is endemic in Hong Kong and can cause serious healthcare-associated (nosocomial) infections with high morbidity and mortality. A surveillance programme is currently in place which aims to standardise MRSA surveillance definitions and methodologies across HA hospitals by establishing web-based surveillance with real-time information sharing and data collection. The official, corporate-wide MRSA statistics provide a basis for policy decisions, epidemiological analysis to target infection control measures, and feedback to users on a need-to-know basis.

Project Highlights

Methodology of Surveillance Programme

Data scope includes patients with positive MRSA results from clinical specimens of inpatients. Day cases, Accident & Emergency (A&E) cases, outpatient cases and results from screening are excluded. All HA hospitals are included. The focus is on two types of cases: New cases (MRSA isolated for the first time from a patient with no evidence of MRSA in the previous 365 days) and MRSA bacteraemia (MRSA isolated from blood). The MRSA incidence (number of new MRSA cases / 1,000 patient days) and the MRSA bacteraemia rate (number of MRSA bacteraemia / 1,000 patient days) are then calculated. The data collected are summarised in standard reports in the Clinical Data Analysis & Reporting System (CDARS), broken down by time period, hospital and cluster. Further classification is made into nosocomial (more than 48 hours after admission) and non-nosocomial (e.g. community-acquired, generally defined as within 48 hours of admission). For

MRSA bacteraemia, duplicate positive cultures from the same patient within a 2-week period are considered a single episode. The frequency of reporting is quarterly, for a period of 12 months and on a rolling basis. The results are analysed with self-comparison against the individual hospital's own rate over the previous 12 months, as well as against the corporate 5-year average rate.

Application of Surveillance Data

Following analysis of annual MRSA trends, centres with relatively high rates would be identified for follow-up actions, e.g. joint hospital visits by the ICB / IDCTC / The Office of HA Chief Infection Control Officer (CICO Office) / Hospital Infection Control Team (ICT) to review infection control measures in relation to MDROs, including MRSA. During the visit, statistics on MRSA are reviewed and the local situation explored, e.g. identification of types of wards and patients observed with high transmission rates, and then through discussion and sharing of experiences, enhanced measures are proposed with a view to formulate a follow-up plan. These enhanced measures include, but are not limited to: monitoring of compliance with isolation precautions and use of personal protective equipment (PPE), proper hand hygiene, enhanced screening of transfer and residential care home (RCH) cases (in addition to admission screening), enhanced environmental hygiene monitoring, e.g. with the use of fluorescent gels, handling of normal and antimicrobial curtains, use of non-touch technologies such as UV-C robots for terminal disinfection, consideration of decolonisation and environmental sampling in wards with MRSA clustering, ensuring correct technique of blood culture collection through training, interview and return demonstration to reduce contamination, sharing of tips on how to conduct audits effectively, etc. Once the improvement plan has been formulated, the progress of implementation and compliance with the recommendation will be monitored. It was found that hospital performance generally improved after implementation of the improvement actions, suggesting that proactive interventions could help to enhance MRSA control in healthcare settings.

Way Forward

The surveillance programme will continue to provide important information on MRSA control in hospitals, particularly on cases of healthcare-associated bacteraemia. With this information readily available, targeted infection control measures can be implemented accordingly.

Infection, Emergency and Contingency

The Department of Infection, Emergency and Contingency (IEC) aims to control infectious diseases, coordinate emergency response and strengthen contingency planning and emergency preparedness. The department consists of three teams:

- **Chief Infection Control Officer (CICO) Office** – provides expert advice on infection prevention and control and supports emergency response to infectious disease outbreaks.
- **Head Office Major Incident Control Centre (HOMICC)** – co-ordinates HA's emergency preparedness and response activities and acts as an information hub to share information during HA-wide major incidents or disasters.
- **Corporate Clinical Psychology Services (CCPS)** – promotes the psychological well-being of HA staff to ensure the delivery of high quality, person-centred services to patients.

CICO Office

Introduction

The devastating fifth wave of COVID-19 outbreak posed unprecedented challenges to HA in terms of isolation capacity and infection control, with a rapid increase in COVID-19 patients. The situation was exacerbated by the emerging threats of Malaria and Mpox in 2022.

CICO Office, acting as the executive arm of HA Central Committee on Infectious Diseases and Emergency Response (CCIDER), gathered expert advice from multidisciplinary experts and coordinated the responses to the rapidly evolving pandemic situation and emerging infectious disease outbreaks.

COVID-19

With the aim of reducing COVID-19 infections, disease severity and mortality, and containing the threat of emerging and re-emerging infectious diseases, many initiatives have been launched in HA for 2022.

Project Highlights

Strengthened Hospital Barriers against COVID-19

The safety of staff and patients is always of paramount concern to HA. In the face of rising COVID-19 community levels, HA immediately stepped up testing arrangements for staff and patients as appropriate to protect them from COVID-19 infection.

Staff Testing

At the onset of the fifth wave of epidemic, HA took proactive steps to enhance staff protection through regular staff testing using daily rapid antigen tests (RATs) for those at higher risk of exposure to the virus. As the community outbreak spread, the scope of regular staff testing was extended in February 2022 from Accident and Emergency Departments (AEDs) and General Outpatient Clinics (GOPCs) staff to all HA staff. This move facilitated early detection of silent COVID-19 infection and minimised transmission among staff, thereby preserving the workforce in the fight against the epidemic.

In mid-July 2022, in line with the Government's testing strategy in public hospitals to better protect patients, additional nucleic acid testing was provided by outsourced laboratories two to three times a week to staff caring for vulnerable patients, including those in day centres providing chemotherapy or radiotherapy to cancer patients, and in oncology, haematology, transplant and haemodialysis centres/departments. In September 2022, coverage of additional nucleic acid testing was extended to other groups of staff caring for vulnerable patients, from those working in AEDs, medical and paediatric wards, infirmaries and psychiatric wards to those providing outbreak services in residential care homes.

Throughout this period, CICO Office played a key role in the procurement of RAT kits and coordination with outsourced laboratories for staff testing. With the support of HA's and the Health Bureau's (HKB) Information Technology (IT) teams, HA introduced the use of HA Chatbot and the Government's IT systems to collect staff testing figures and test result notifications, making the process more streamlined and efficient.

The portal for nucleic acid test result reporting via the Government's IT system

Enhanced Testing for Patients

To minimise the risk of nosocomial outbreaks during the ongoing COVID-19 pandemic, CCIDER advised in April 2022 to strengthen the admission screening process for asymptomatic inpatients by implementing Enhanced Laboratory Surveillance (ELS). This, namely Tier 8a ELS, included a RAT and a nucleic acid test on Day 0 of admission, followed by a repeat test (either RAT or nucleic acid test) on Day 3 of admission. The testing requirements were reviewed and updated in July and August 2022 in response to observed infection patterns in some COVID-19 patients.

In addition, from January 2022, patients attending day centres/services with a stay of more than two hours were required to have a negative nucleic acid test result 48 hours prior to their appointment, known as Tier 8b ELS. However, this test requirement was replaced in April 2022 by a same-day RAT, which provided real-time detection of infection status and was more convenient for patients.

These measures were reduced until the public health risk of COVID-19 was eased in December 2022. Admission screening was continued only in high-risk wards, while screening for patients attending day services was suspended.

b Responses to Raging Epidemic

Discharge Arrangement of COVID-19 Patients

During the peak of the fifth wave of COVID-19 pandemic, public hospitals were overwhelmed by a dramatic increase in COVID-19 patients. To admit patients with imminent medical needs as early as possible, after consultations with the Centre for Health Protection (CHP), CCIDER reviewed and updated the discharge criteria in late February 2022 to discharge or download stable COVID-19 patients who had received medical attention and had low infectivity to appropriate settings, as a contingency measure under such emergency situation.

Discharge screening of patients from Residential Care Homes for the Elderly (RCHes) was also introduced at the end of March 2022. Patients were required to have a negative COVID-19 test result or a nucleic acid test result with a cycle threshold (Ct) value >30 before being discharged to their institutions, in order to minimise the risk of transmission in these settings. These measures were subsequently extended to COVID-19 patients from Residential Care Homes for People with Disabilities (RCHDs).

Return-To-Work (RTW) Arrangements for Staff

During the fifth wave of COVID-19 pandemic, it was crucial to maintain essential healthcare services while protecting staff and patients. To this end, HA worked closely with HHB and CHP to implement measures to allow infected staff or close contacts who had been tested negative on Day 7 to return to work from February 2022 under enhanced infection control measures.

Staff returning to work were required to adhere to a bundle of infection control measures, including wearing a well-fitted mask, eating alone, performing daily RATs and avoiding public gatherings. However, due to sporadic outbreaks among staff, infection control requirements were tightened in September 2022. Additional nucleic acid testing was introduced on Days 6 and 7, staff were required to wear surgical respirators at work, meal times were staggered with other staff and work schedules were adjusted for staff working in wards with immunocompromised patients.

c Exchanging Views on Anti-epidemic Work with the Mainland

Exchange Meetings with Mainland Experts

To help Hong Kong cope with the growing COVID-19 outbreak, HA received strong support from the central authorities. Expert delegates from the Mainland visited Hong Kong several times between February and June 2022 to share their experience in epidemic control and offer advice on how to better target epidemic control efforts. The CICO Office actively participated in the meetings with the expert delegates and provided relevant information for discussion.

With the valuable suggestions from the mainland experts, HA, in cooperation with relevant offices and departments, appropriately strengthened and refined its stratification of care strategy for the management of COVID-19 patients through a series of measures. In principle, the strategy includes five levels of care and aims to make the best use of resources and optimise the effectiveness of treatment according to the clinical conditions of patients. Details are summarised in the table below:

Level of care	Patient condition	Facilities	Treatment / Services
1	Critical or serious	<ul style="list-style-type: none"> • Designated hospitals • Other public hospitals • Central Government-Aided Emergency Hospital (CGAEH) 	<ul style="list-style-type: none"> • Intensive care • Ventilation support • Oxygen therapy • Antivirals
2	Requiring hospital care		<ul style="list-style-type: none"> • Hospital care
3	Stable and with mild symptoms	<ul style="list-style-type: none"> • Treatment Centre for COVID-19 (Asia-World Expo) • North Lantau Hospital Hong Kong Infection Control Centre (NLTH HKICC) 	<ul style="list-style-type: none"> • Medical care
4	Asymptomatic and stable but having discharge or caring problem at home or elderly home	<ul style="list-style-type: none"> • Community Isolation Facilities • Holding Centres 	<ul style="list-style-type: none"> • Inter-departmental operation • Medical attention from private sectors
5	Asymptomatic, stable and independent	<ul style="list-style-type: none"> • Designated Clinics 	<ul style="list-style-type: none"> • Onsite/ Tele-consultation • Drug delivery

With the adoption of the strategy, the pressure on the public health system was greatly reduced, allowing valuable inpatient capacity and care to be reserved for the most needy patients. Through solidarity and perseverance, the level of COVID-19 activity in Hong Kong dropped significantly and remained stagnant at the end of 2022.

d Paving the Way for Normalcy

Based on the latest scientific evidence on the reduced pathogenicity of Omicron, CCIDER has been reviewing and relaxing the infection control measures in a gradual and structured manner since December 2022, in order to balance the infection control risk and the maintenance of patient services.

Malaria

In August 2022, there was an abnormal increase in the admission of imported Malaria cases in Hong Kong. The batches of patients were identified as railway workers returning to the mainland from African countries where there was a Malaria outbreak. Due to the entry regulations for COVID-19, many of these affected workers travelled to Hong Kong for transit, and with the late onset of Malaria, these cases were at increased risk of serious complications and life-threatening situations.

CICO Office immediately worked with the Department of Health (DH) and multidisciplinary teams to conduct a risk assessment and prepare for the potential influx of Malaria cases. Enhanced infection control measures were put in place, including pest control and proactive screening of incoming workers. Assistance was sought from Guangdong to mobilise drug stocks to meet the expected increase in demand. At the same time, urgent purchases of relevant drugs were arranged to maintain stocks for the long term. At the hospital level, intensive care beds were reserved for admission of confirmed Malaria patients.

Fortunately, the number of severe Malaria cases requiring admission to HA hospitals was limited. Nevertheless, HA's responsiveness and resilience to Malaria outbreaks was strengthened by collaborative efforts and rapid response of all staff.

Mpox (also known as monkeypox)

In 2022, an outbreak of Mpox was raging in many countries, prompting WHO to declare it a Public Health Emergency of International Concern (PHEIC) on 23 July 2022.

To prepare for the emerging threat of Mpox, HA developed HA Preparedness Plan and the Infection Control Plan for Mpox, in line with the Government's overall strategy against Mpox. These plans aimed to guide a series of measures under the principle of "early identification, early isolation and early treatment". Treatment guidelines were also developed to guide patient management.

CICO Office reviewed laboratory capacity and coordinated the introduction of nucleic acid test reagents for Mpox. These enabled HA laboratories to perform the test alongside DH's Public Health Laboratory Service Branch (PHLSB).

Following recommendations from DH, Mpox vaccination was offered as pre-exposure prophylaxis to staff at risk of occupational exposure to Mpox, such as those working in Tier 1 isolation wards and microbiology laboratories, from the end of September 2022. It was later extended to high-risk target groups in two Special Medical Clinics of HA in October 2022.

In September 2022, HA received and managed two imported cases of Mpox who later recovered and were discharged from hospitals. CICO Office will continue to monitor the Mpox situation and maintain prompt communication with CHP and staff on the latest developments.



JYNNEOS vaccine for pre-exposure prophylaxis among at-risk staff

HOMICC

Introduction

The gruelling fifth wave of COVID-19 had a significant impact on HA and Hong Kong as a whole, with the situation evolving at an unprecedented speed and scale. In response, HOMICC began round-the-clock on-site operations to support frontline staff and manage the rapidly evolving situation.

While HA's Central Command Committee, together with the HOMICC and other relevant specialist teams, was responsible for directing the formulation and implementation of strategic measures, the Corporate was still overwhelmed by operational command issues such as dead bodies stranded in AEDs, AEDs being overwhelmed with patients from public and residential care homes and a shortage of patient transport. Ultimately, the demand for multi-functional mobilisation was beyond the capacity of HOMICC and other specialist teams to manage alone.

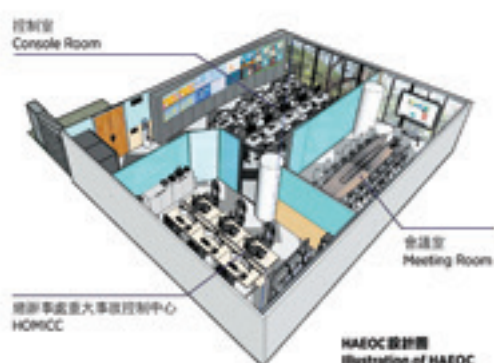
Initiated by HOMICC and led by the Director of Quality & Safety, the first “Morning Prayer” meeting was held between various HQ professionals and Cluster representatives with the aim of unifying **the seven Clusters as a SINGLE FRONTIER**. The meeting focused on the latest statistical data, the actual operational situation and the assessment of the pandemic development in order to tailor the most appropriate corporate response. The initiative proved successful and was implemented on a daily basis during the peak of the pandemic, resulting in reduced bed turnover and prioritisation of hospital resources to those most in need.



Project Highlights

The Establishment of The HA Emergency Operation Command

Building on the experience gained during the fifth wave of COVID-19, the HA HOMICC was tasked with coordinating the establishment of **The HA Emergency Operation Command (HAEOC)** to strengthen the 4-Cs of incident management - command, control, communication and coordination. HAEOC would serve as a dedicated command centre, not only for COVID-19 pandemic, but also for other major crises.



The operation of HAEOC is based on three key principles: **Data Driven, Collaboration and Rapid Response**. HAEOC enables management to efficiently mobilise HA resources, such as hospital beds and manpower, by monitoring real-time statistics and AED Closed-Circuit Television (CCTV). Quick strategic decisions can be made to ensure that patients or casualties are transferred to appropriate facilities quickly. HAEOC also provides an effective communication channel with the Government agencies such as DH and the Hong Kong Fire Services Department, enhancing HA's response during major incidents.

Drill and Exercise

For the majority of 2022, IEC focused heavily on the infection aspect, but HOMICC proactively participated in 18 emergency and preparedness exercises related to disasters, accidents, diseases and chemical, biological, radiological or nuclear (CBRN) incidents. Where possible, HOMICC involved AEDs to test emergency response procedures and equipment. These exercises provided HA's first responders and relevant teams with the opportunity to practice specific skills and procedures, and to test new technologies. Following the exercise, the HOMICC provided feedback and recommendations to relevant parties and reviewed HA's contingency plans, operational guides and operational flow between HAHO, Clusters and hospitals.



Way Forward

To prepare for future challenges, HOMICC together with HAEOC will continue to work closely with HO Information Technology and Health Informatics (IT&HI), HA's strategic partners and Cluster colleagues to evolve towards a data-driven, collaborative and rapid response. HOMICC would also actively engage more Cluster colleagues to participate in drills and exercises to ensure the relevance and effectiveness of HA's emergency response.

Project Highlights

a Staff Psychological Services for the Fifth Wave & Rebound of COVID-19

The prolonged COVID-19 had caused a lot of stress, anxiety and frustration among health workers. Given the volatile nature of the fifth wave and the resurgence of the epidemic, CCPS implemented the following initiatives to empower HA staff and promote mental well-being:

Mental Health Promotion

To support the mental health needs of HA staff by building resilience and promoting coping skills during the epidemic, CCPS provided wellbeing talks and groups on various topics (e.g. mindfulness, self-compassion, relaxation, etc.) for all staff to promote self-care during difficult times. In the fifth wave, 107 talks and workshops were delivered with a total of 1,479 participants. Short 30-minute relaxation groups/webinars were designed to meet the specific needs of staff. Positive feedback was received.

In addition, Critical Incident Psychological Services (CIPS) Centres worked with Critical Incident Support Teams (CISTs) to extend psychological support to more frontline staff. Caring gifts with wellness tips and service information were distributed in hospitals to reduce stress, encourage self-help behaviours and promote mental health awareness among HA staff.

Self-help Resources

At the same time, CCPS continued to develop self-help psychological resources on its website to facilitate access to self-assessment, psychoeducation and professional support for employees in need. More wellness tips, audio-visual exercises and inspirational stories on key issues were tailored to meet the specific needs of staff in different workplaces and at different times. As the epidemic subsided and society returned to normality, new topics on recovery (including self-care after COVID-19, mutual support, positive communication, burnout and moral injury) were readily introduced to minimise the long-term impact of COVID-19. In 2022/23, over 26,000 monthly visits to the resources on the website were recorded.



Increasing Service Accessibility at Fingertips

Given the widespread use of digital tools, CCPS had been exploring the possibility of increasing access to services by making the best use of HA's digital platforms. Since the launch of the psychological wellness app - myOasis, CCPS has proactively shared its latest wellness tips and psychological services with HA staff via the app. In addition, similar resources were promoted on the myHR App, HA Chatbot and HA.home to expand staff's access to psychological services despite the restriction of social distance.



To reduce stress and increase mental health awareness among HA staff, relaxation exercises and mental health materials were added to the Oasis Website and myFitness app. Online psychological support kits have also been added to HA Chatbot for easy access by staff in need.

Other Individual and Group Service

(i) Strengthen Telecare Service



To improve CCPS services to staff, the e-triage Chatbot service was developed and promoted. Usage of this electronic service has shown a steady increase, accounting for approximately 40% of all triages in CCPS. By automating the triage process through the Chatbot, procedures have been streamlined to allow colleagues to access CCPS services easily and conveniently, regardless of their location or time of day. The 24/7 operation of the e-triage service was user-friendly for frontline staff who may work irregular schedules or long hours.

(ii) New treatment groups

In response to the evolving needs of our colleagues, new content for treatment groups was developed to meet their general and post-pandemic needs, such as acceptance and commitment therapy (healing of heart 逆後療心) and wellness tips for work. These treatment groups were targeted to provide support for issues such as parenting and recovery from distressing events. A flexible service model was adopted for these treatment groups, which continued to be delivered through different modalities, such as face-to-face sessions, Zoom or a combination of both, to ensure accessibility for all HA staff.



b Oasis “Fuel Your Heart” Webinar Series

In light of the challenging times and work challenges over the past few years due to COVID-19, CCPS also launched the “Fuel Your Heart” webinar series in partnership with other departments with the aim of strengthening staff resilience, peer support and building a caring culture in the workplace. The first webinar, on “Cultivating Happiness”, was held in partnership with Human Resources (HR) in December 2022 and attracted 661 participants. Due to the positive and encouraging feedback received from participants, the second webinar on “Positive Communication” will be held in collaboration with the Advisory Committee on Personal Growth and Development Services of Oasis on 18 April 2023.



c HA Disaster Psychosocial Services (DPS)

The DPS Website was revamped to provide up-to-date psychosocial training materials, including COVID-19 resources and four new special topics related to the pandemic and key events. An interactive zone on the DPS Website was also developed and launched to facilitate professional exchange among members of the HA’s Disaster Psychosocial Services Team (DPST).



Patient Relations and Engagement

Introduction

Trustful doctor-patient partnership can improve clinical outcomes, satisfaction for the healthcare team, and the performance of the organization. An effective feedback and complaint system is crucial for sustainable patient relations development.

Since its inception, HA has established a structure and system to collect and handle public complaints, feedback and appreciations for continuous service enhancement. To provide people-centred care, we acknowledge the importance of having a caring heart and good two-way communication, even when we are busy or a patient is demanding. To this end, HA has been striving to create a culture supportive to good patient relations and complaints management. As a further step forward, HA has followed the international trend of employing Patient Experience Surveys (PESs) to proactively gauge patient feedback for quality improvement.

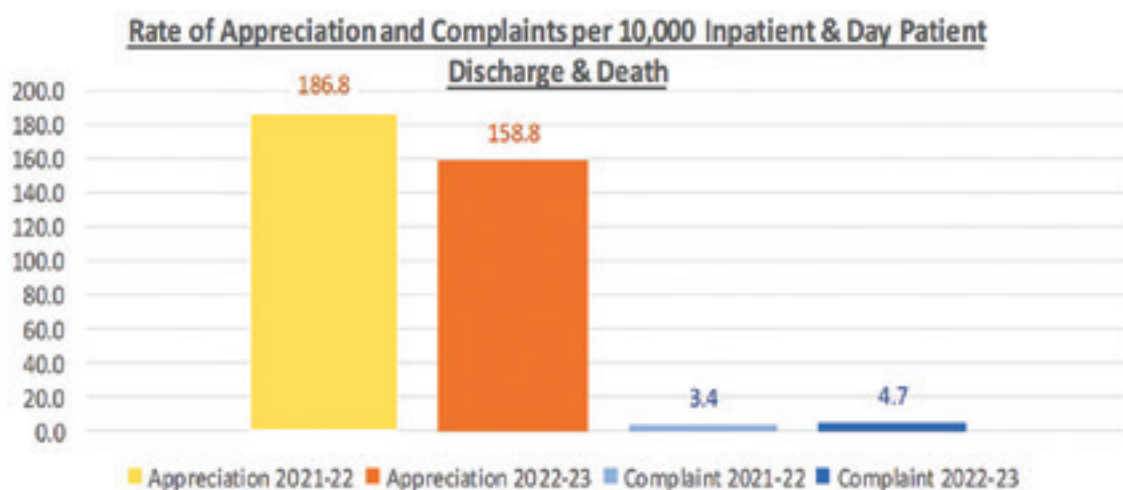
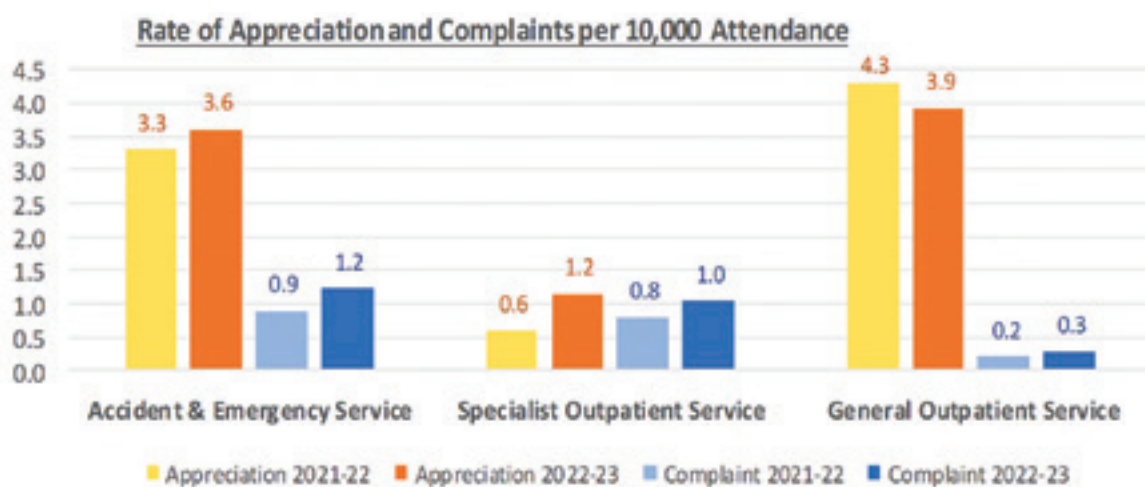
Project Highlights

a Overview of Appreciation, Complaints and Feedback Received

In 2022, Hong Kong and HA faced a range of challenges and opportunities as they lifted various anti-epidemic measures and aimed to resume normalcy. Although COVID-19 pandemic was under control, there were still a considerable number of feedback and complaints related to COVID-19, indicating the continuing impact of the epidemic on HA's service delivery. Meanwhile, increasing non-COVID-19 service demand, coupled with the manpower shortage of HA brought pressures to our service provision and at times resulted in communication breakdown and unmet expectation.

Complaints, feedback, and appreciations are valuable indicators of patient satisfaction and the quality of services provided. The related statistics for April 2022 to March 2023 received by hospitals and clinics is summarized as follows:





Given the substantial volume of healthcare services provided by HA, the number of appreciations received for most of our services was significantly higher than that of complaints. This denotes that the majority of patients were satisfied with HA services they received.

b Patient Experience Surveys

Over the past decade, HA has been conducting PESs to measure and monitor patients' experience towards its services using consistent methodologies and validated tools. The surveys facilitated a longitudinal monitoring of HA's service quality, making it an integral part of the governance framework to engage patients for patient-centred care and put quality improvement into action.

Publication of the Results of the 2021 PES on Specialist Outpatient Service

The fieldwork of the latest PES on Specialist Outpatient Service was launched in August 2021 and completed in January 2022. The survey covered over 13,000 patients who had attended any of the 26 selected Specialist Outpatient Clinics (SOPCs) of HA.

Following the outpatient journey, patient experience was evaluated by a validated questionnaire comprising eight care aspects. Public reporting on the findings was conducted in December 2022.

The overall patient experience was very good and similar across the 26 SOPCs. 88% of the respondents rated 7 or above (along a scoring scale of 0-10) for the overall experience, and the average score was 7.9. The Survey reflected high confidence among patients in healthcare professionals; and patients felt being respected and heard by the doctors. There was room for improvement in some aspects of communication and information giving, such as anticipated waiting time for consultation, danger signs to watch for, contact point for enquiry after leaving SOPC, and channels for expression of opinion, appreciation and complaints.

Apart from the follow-up actions taken by individual clusters/hospitals to drive improvements on areas with low scores, HA is committed to improving patient experience in SOPCs. A Working Group on PES at the corporate level comprising representatives of seven Clusters was set up to advise, coordinate, and oversee HA-wide improvement plans, and to provide strategic direction for PESs.

In accordance with the Corporate PES Service Plan, Inpatient PES is conducted at regular intervals with Specialist Outpatient/Specialty-based PES in between.



c Enhancing Capacity and Staff Competencies in Conflict Resolution

To equip our staff with the necessary skills to manage and resolve conflicts effectively and efficiently, HA has implemented several training and development initiatives as follows:

Building Capacity through a Cluster-based Patient Relations Office Structure

Under a cluster-based Patient Relations (PR) Office structure led by a Cluster PR coordinator, hospitals within the same Cluster can align their practices, share their experiences, provide better mutual support, and monitor the performance in patient relations and complaint management.

Complaints Management and Conflict Resolution Trainings

The webinar series on complaint management training named 「5:00 拆彈大本營」 continued to be launched regularly. There was an increasing participation from different professions and more hospitals/clinics with positive and encouraging feedback. A face-to-face seminar by the Office of the Ombudsman was organized to enhance staff's understanding of good public administration.



Staff Development Rotation Programme

Effective complaint management is specialized and experience-dependent. The Staff Development Rotation Programme provided opportunities for PROs and Complaint Managers to gain experience and widen their exposure through working in HAHO and different clusters / hospitals.

Attachees Programme on Complaint Management

In collaboration with HO Human Resources (HR) and Nursing Services Department (NSD), and Cluster PR Offices, attachees programmes were organized for Patient Relations Officers (PROs), clinical leaders from different disciplines, and Cluster management to participate in Public Complaints Committee (PCC) meetings as observers. This programme provides them with exposure to HA's complaint management works and helps enhance their understanding of the importance of their roles in the complaint handling process.

Way Forward

A good and harmonious healthcare professional-patient relationship is essential in maintaining the quality of patient care. Patient Relations and Engagement Department will continue to collaborate with stakeholders to advocate for more public education and promote a positive and just complaint culture to enhance communication and prevent misunderstandings.

Patient Safety and Risk Management

Introduction

Patient Safety and Risk Management Department (PS&RM) was established to coordinate improvement in patient safety and quality of care across HA. Through analysing reported incidents, PS&RM identifies risks in patient care processes, introduces various risk reduction measures and works with Clusters and other corporate Departments on integrated system enhancement projects.

PS&RM provides executive support to four Coordinating Committees (COCs) – Orthopaedics & Traumatology (O&T), Ophthalmology (OPH), Obstetrics & Gynaecology (O&G), and Paediatrics. Despite recurrent waves of COVID-19, key projects continued to make progress, including Warfarin Safety and Allopurinol Safety initiatives, and Medical Student and Pre-Intern Training.

Project Highlights

a Warfarin Safety Campaign

Approximately 19,000 patients were prescribed warfarin in HA during 2020-21. To continuously improve patient safety on the use of warfarin, a HA-wide Warfarin Safety Campaign was launched in June to August 2022, to raise staff awareness and enhance warfarin safety through innovative strategies.

A total of 189 entries were received, showcasing the creativity of colleagues across various departments and Clusters. A staff webinar held on 19 August 2022 featured presentations from the six finalists, with over 1,000 colleagues participating through a live poll to determine the winners, as well as through HA PS&RM Instagram online voting for “My Favourite Warfarin Idea”.

Hospital Authority
Warfarin Safety Campaign

Do you know ?

- In 2020, around 19,000 HA patients were prescribed Warfarin and among them, 2,200 were new cases
- 98.5% of these patients were on daily or odd-even day regime, 1.5% were on complicated regime
- There have been around 10 Warfarin related incidents each year in 2019 - 2020
- Common Observations:
 - Actual prescription different from the intended prescription or shorter than intended period
 - Not referring to the most updated INR
 - Complicated regime

Theme

We hope to call for bright ideas on Warfarin safety in HA, such as smarter administration, prescription, dispensing or patient communication

Awards & Prize

- Champion : Apple AirPods Pro
- 1st runner up : Nintendo Switch Lite
- 2nd runner up : Bruno Compact Hot Plate
- Merit : Supermarket Cash Coupon

Submission deadline
30 June 2022

SCAN ME

For inquiry, please contact Ms CHUNG at 2300-6636

Poster of the HA-wide Warfarin Safety Campaign 2022

Winning ideas proposed having an electronic dashboard for International Normalised Ratio (INR) result alerts, HA Go App education, warfarin regime standardisation, and “Medication Genie” to provide the latest laboratory results during drug administration. Dr SO Wing-ye, Chairperson of the Medication Safety Committee, also shared her insights as a guest speaker and judge.



Winners of the Warfarin Safety Campaign

b Allopurinol Safety

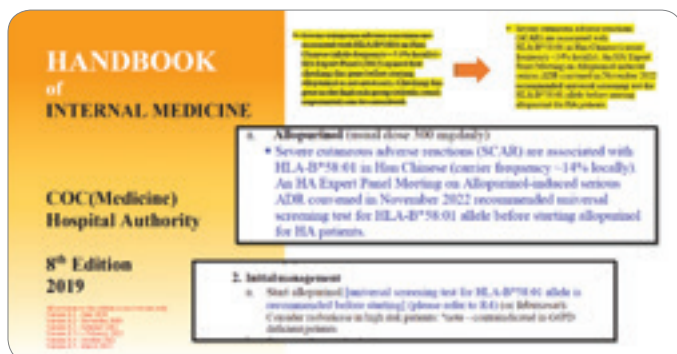
Following the Expert Panel Meetings on Allopurinol-induced serious adverse drug reaction (ADR) in 2012 and 2018, the third Expert Panel Meeting was convened in 2022 to review the latest local and international data. After serious deliberation, the Panel recommended universal genetic screening before prescribing allopurinol for patients in HA. Other recommendations included setting system prompts to strengthen prescribers' decision support, and patient education for early recognition of adverse reaction.



Latest patient information leaflets, updated following the third Expert Panel Meeting in 2022

Courtesy: Chief Pharmacist's Office (CPO), HAHO

PS&RM will continue to collaborate with Clusters and various Departments on the implementation of these recommendations, to ensure allopurinol safety.



The Handbook of Internal Medicine (version 8.5), incorporating latest recommendations from the Meeting

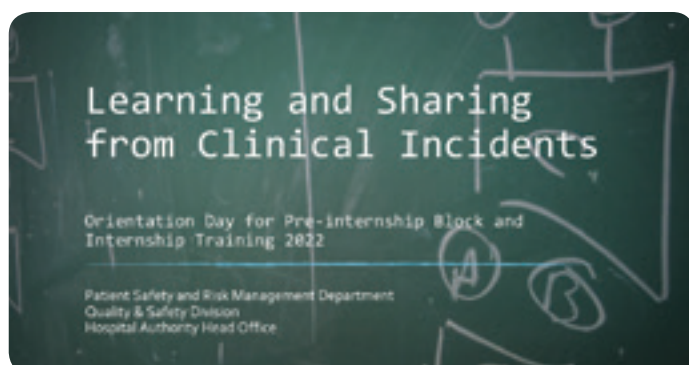
c Medical Student and Pre-Intern Training

PS&RM has been actively participating in training sessions of medical students and pre-interns for sharing of safety tips. In April 2022, PS&RM participated in creating a video lecture for Pre-internship Block and Internship Training at the Chinese University of Hong Kong, titled “Learning and Sharing from Clinical Incidents”. The lecture focused on practical tips and reminders derived from actual incidents and near-miss events.



Dr Jackie CHEUNG, SM(PS&RM), delivering a session to MBBS students at HKU in October 2022

PS&RM medical staff also contributed to medical student training at the University of Hong Kong. Seminars for fourth- and fifth-year students covered patient safety and risk management concepts, incident management, the Swiss cheese model, areas of clinical risk, WHO surgical safety checklist, clinical governance, and fostering a sharing and learning culture. These sessions were well-received, enhancing understanding of patient safety and risk management in future medical professionals.



The Patient Safety and Risk Management Department provides input to pre-internship training, coordinated by CUHK in 2022

Quality and Standards

Access Management – Specialist Outpatient Clinic

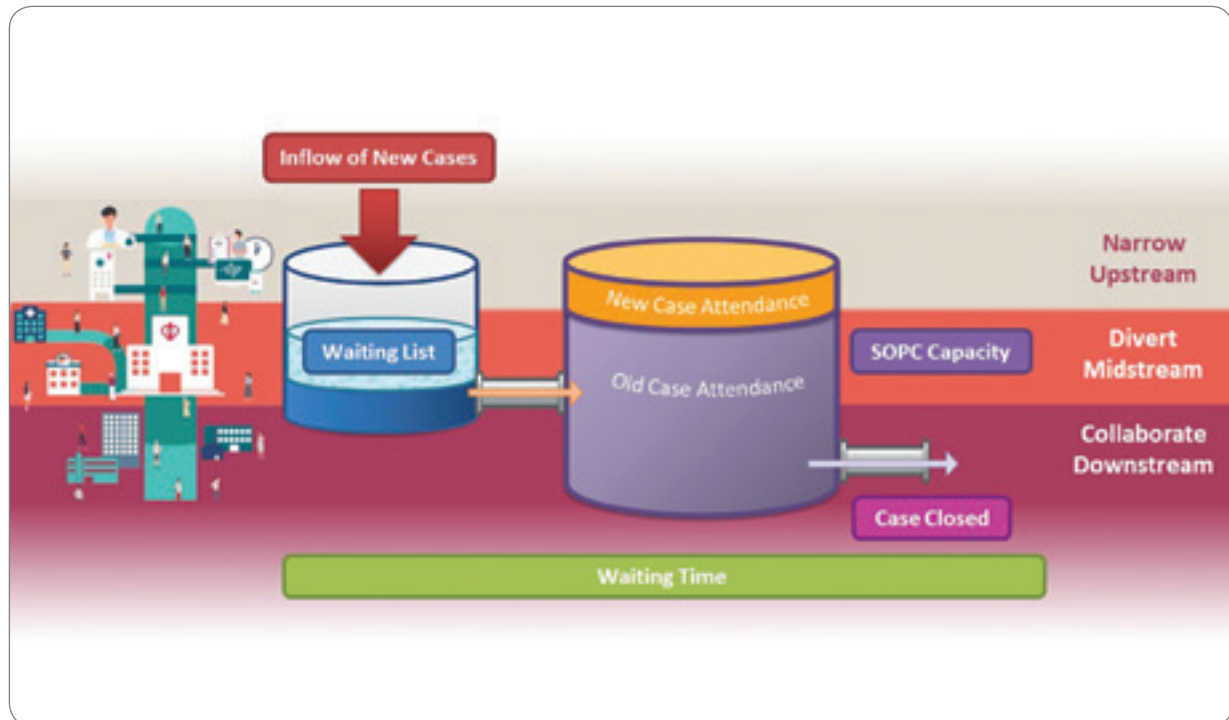


Figure: SOPC Waiting Time Management Framework

Introduction

The waiting time for new cases in SOPCs has been a concern for the public and is regularly monitored by HA in various management platforms. In view of its significant impact on the HA's long-term sustainability in the face of ever-growing demand for SOP services, SOPC waiting time has been one of the focus areas of the Task Group on Sustainability (TG) formed under HA Board's Executive Committee since its establishment. Under the TG's direction, various short-, medium-, and long-term measures and strategies have been implemented to address SOPC waiting time via narrowing upstream, diverting midstream, and collaborating downstream. With the concerted efforts made over the years, the number of SOPCs with waiting time over 100 weeks decreased substantially from 20 (in October 2020 to September 2021) to nine (in January 2022 to December 2022). HA's overall SOPC waiting time has also generally improved.

In October 2022, the shortening of SOPC waiting time for Medicine (MED) was set out as one of the key performance indicators (KPIs) in the Hong Kong Special Administrative Region Chief Executive's 2022 Policy Address (2022 PA) to enhance public hospital services in Hong Kong. In this connection, HA will reduce the 90th percentile waiting time of stable new case bookings for MED by 20% in 2023/24. Taking the 2021/22 12-month rolling HA Overall SOPC 90th percentile waiting time of stable new case bookings in MED of 122 weeks as the baseline, the target to be achieved would be 97 weeks or less by 2023/24.

Project Highlights

To demonstrate HA's commitment to improving SOPC waiting time as pledged in 2022 PA and to support SOPC services, HA adopts a multi-pronged approach through the following improvement strategies:



Figure: Measures to Manage SOPC Waiting Time

Narrowing upstream

To minimize unnecessary referrals via senior screening, arrange secondary consultation platforms (e.g. Family Medicine (FM)-Specialty discussion sessions, joint clinics, or tele-health support) to support case management, implement triage clinics (e.g. FM-O&T Collaboration Programme to divert defined referrals from SOPCs to FM Specialist Clinics by triage clinics) to achieve the right care for the right patients at the right time, and review referral mechanisms from internal and external sources.

Diverting midstream

To enhance efficiency and capacity via demand management (e.g. by diverting cases from a SOPC with longer waiting time to another SOPC within the same Cluster with a shorter waiting time to even service demand), quota and booking pattern management (e.g. by regular review to ensure quotas are well-utilised), and doctor-led multidisciplinary integrated clinics (e.g. by developing more integrated clinics in various specialties and for more patient groups).

Collaborating downstream

To enhance case close (e.g. by regular review of cases by senior clinicians to facilitate case close) and downloading of stable cases to primary care (e.g. FM Integrated Clinics or GOPCs, District Health Centres in the community) and private general practitioners under a co-care model of public-private partnership (PPP).

With dedicated efforts and the implementation of the above measures, HA Overall 90th percentile waiting time of stable new case bookings for MED from January 2022 to December 2022 was lowered to 105 weeks. The joint efforts of HA Corporate and Cluster Management will continue, and the initiatives will be actively implemented and monitored with a view to meeting the KPIs set in the 2022 PA and attaining a better balance between service demand for and supply of SOP services.

Way Forward

HA will continue to closely monitor the progress of SOPC waiting time management. Clusters' progress on SOPC waiting time of MED has been reported monthly in HA Directors' Meetings (DM). In addition, to achieve continuous improvement, the progress update of major specialties will also be regularly reported and reviewed at various governance platforms, such as the TG, Steering Committee on SOP Services, Cluster Management Meetings, etc.

Development of eConsent Platform

Introduction

With continuous support from HOIT&HI teams, Cluster coordinators, and local IT teams, more than 30 system enhancements were completed in the past year. Three major enhancements completed in 2022 are highlighted below:

1. To optimise the consent process, the eConsent was interfaced with the Operating Theatre Records System (OTRS) for marking procedure done to facilitate the closed-loop workflow.

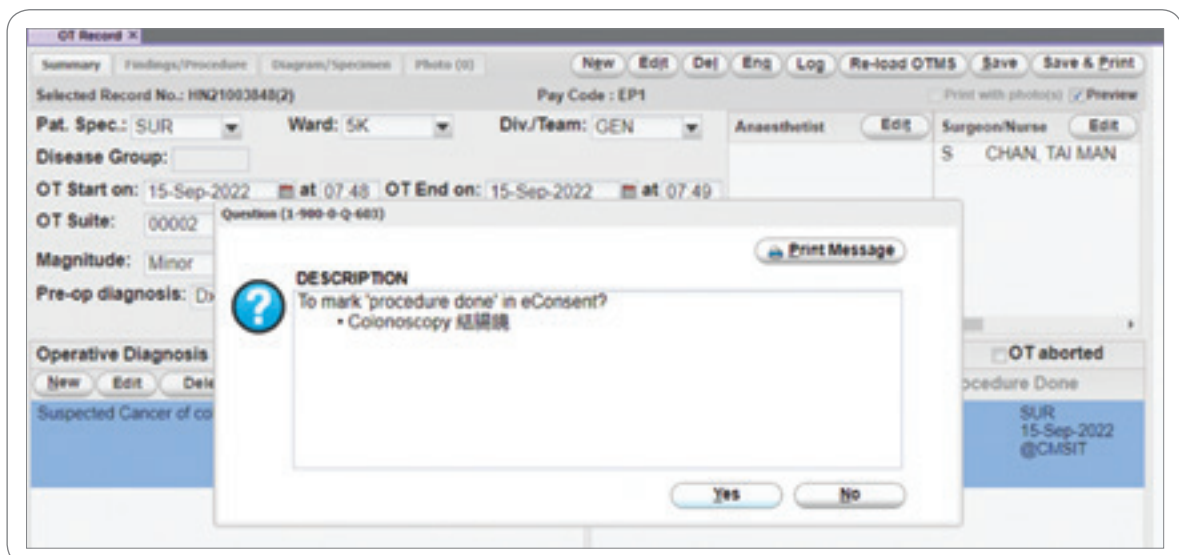


Figure: Interface with OTRS

- For better documentation, the eConsent would show the tracked changes on procedure information and diagnosis on Anaesthetic Consent for anaesthetist to review after there is an update on Surgical Consent.

The Patient's diagnosis/indications for the operation/procedure/treatment:

- ☒ Carpal fracture / Dislocation / Fracture dislocation 腕骨骨折 / 移位 / 骨折及移位
Right 右

Name and nature of the procedure:

- ☒ Closed +/- open reduction 閉合復位 +/- 開放性復位
Right 右
- ☒ External fixation 外固定支架
- ☒ +/- Bone graft 骨移植

Additional Information :

- ☒ No more other information

Figure: Show tracked changes on procedure information and diagnosis on Anaesthetic Consent

- An exporting utilisation statistics function was developed in eConsent Data Maintenance (eCDM) system to support the Cluster coordinators to draw eConsent utilisation statistics for data analysis and management.

Case No	Form No	Procedure ID	Procedure Name	Hospital	Department	Consent Type	Consent Status	Consent Language	Month
HN23081434H	HCH-2023-001081	HCH-PAE-003	Skin Prick Test 針皮試驗	HCH	PAE	Not Requiring Ana	E-Signed	Chi	2/2023
HN23081435H	HCH-2023-001084	HCH-PAE-029	Treadmill / Cycle Ergometer Exercise Test (Pain) 踏車運動測試 / 腳踏車運動測試 (疼痛)	HCH	PAE	Not Requiring Ana	E-Signed	Chi	2/2023
HN23081437B	HCH-2023-001082	HCH-PAE-003	Skin Prick Test 針皮試驗	HCH	PAE	Not Requiring Ana	E-Signed	Chi	2/2023
HN23081439D	HCH-2023-001096	HCH-PAE-029	Treadmill / Cycle Ergometer Exercise Test (Pain) 踏車運動測試 / 腳踏車運動測試 (疼痛)	HCH	PAE	Not Requiring Ana	E-Signed	Chi	2/2023
HN23081440B	HCH-2023-001096	HCH-PAE-003	Skin Prick Test 針皮試驗	HCH	PAE	Not Requiring Ana	E-Signed	Chi	2/2023
HN23081443G	HCH-2023-001097	HCH-PAE-003	Skin Prick Test 針皮試驗	HCH	PAE	Not Requiring Ana	E-Signed	Chi	2/2023
HN23081444E	HCH-2023-001098	HCH-PAE-003	Skin Prick Test 針皮試驗	HCH	PAE	Not Requiring Ana	E-Signed	Chi	2/2023
HN23081445C	HCH-2023-001100	PAE-041	Insertion of Peripherally Inserted Central Catheter (PICC) with the use of guidewire 使用導引線插入周邊置入中央靜脈導管	HCH	PAE	Not Requiring Ana	E-Signed	Chi	2/2023
HN23081446C	HCH-2023-001102	PAE-075	Transfusion of Blood or Blood Components (Paediatric) 輸血或血液成分 (兒科)	HCH	PAE	Requiring Ana	In-Progress	Chi	2/2023
HN23081448H	HCH-2023-001106	PAE-081	Computed Tomography (with intravenous contrast injection) (Paediatric) 電腦掃描造影 (包括靜脈注射造影劑) (兒科)	HCH	PAE	Not Requiring Ana	E-Signed	Chi	2/2023

Figure: Export eConsent statistics in eCDM

Way Forward

The Working Group on Informed Consent for Operation/Procedure/Treatment will further explore possible enhancements and interfacing with other IT systems to facilitate the eConsent workflow in clinical operations.

Viral Hepatitis Management

Project Highlights

a Post-Vaccination Serologic Testing (PVST) for Babies Born to Hepatitis B Virus (HBV) Infected Mothers

To reduce the risk of mother-to-child transmission (MTCT) of HBV, the initiative of providing antivirals to pregnant women with HBV infection and high viral load has been rolled out to all birthing hospitals under HA since August 2020. Subsequently, DH and HA collaborated to provide PVST service, which commenced in January 2022. Under PVST service, babies born to HBsAg-positive mothers are referred for blood-taking to check for the presence of infection or immunity after completion of hepatitis B vaccination. Those with HBV infection will be referred for follow-up and management, while babies without immunity will receive an additional course of hepatitis B vaccine and a second PVST to confirm immunity. An interim review of the clinical and service outcomes of this initiative will be conducted by the DH in 2024.

b Management of Patients with Chronic Hepatitis B (CHB) in Primary Care Settings

To meet WHO's target of a 90% diagnosis rate and an 80% treatment rate of HBV by 2030, strategies are being explored to enhance the management capacity of CHB, including engaging primary care physicians to support CHB management in primary care settings. Deliberations among HA hepatologists and family physicians have been initiated to develop a guidance document on CHB management in primary care settings that is applicable in HA setting. It is planned to pilot the potential collaboration model on CHB management in selected FM units of HA in 2023.

c Macro-Elimination of Hepatitis C Virus (HCV) in HA

To achieve macro-elimination of HCV in HA, a review exercise is in progress to identify patients with potential active HCV infection for appropriate management and treatment by phases. In 2022, the management of relevant patients who were under the care of medical units has started, while those without medical follow-up will be managed in the subsequent phase in 2023, tentatively.



Cluster



Hong Kong East Cluster

❖ Patient Safety Month 2022

The Hong Kong East Cluster (HKEC) Quality & Safety Office organised the annual Patient Safety Month event in November/December 2022, aiming to promote the delivery of quality healthcare and encourage the sharing of best practices in HKEC hospitals. This year's theme was 「Battle Against COVID-19: Together We Overcome 疫境難捱日日並肩同服務 齊心渡過年年合作見精神」.

The event featured a series of six lunch forums and one workshop, including a keynote presentation by Professor Amy CHOW of the University of Hong Kong on *"Difficult Conversations and Struggles during Pandemic"* and a presentation by Mrs Gianna HSU, Chairman of the Travel Industry Council of Hong Kong, on *"Hardship and Transformation of the Travel Industry against COVID-19"*. We were honoured to have participants from members of the Hospital Governing Committee in HKEC, HKEC colleagues, HAHO and other Clusters join us in person and via the online platform.

In addition, a photo exhibition entitled 「抗疫之路2.0真•剖白攝影展」 showcased the contributions of our colleagues in the fight against COVID-19. On the same day, the theme song 「逆境都能夠抵抗」 was premiered with a music video.



the theme song
「逆境都能夠抵抗」

❖ Q&S Forums and Joint Journal Club of Q&S and Innovation

Following the stabilisation of the fifth wave of COVID-19, CQ&S Office promptly resumed its Lunch Forums and Journal Clubs in May 2022. A total of 15 Lunch Forums have been successfully organised, with a cumulative number of participants of about 2,600. CQ&S Office would continue to explore various topics for the purpose of staff training, sharing, learning and promoting a culture of safety.

❖ Q&S Structurised Rounds

CQ&S Office has been actively organising Senior Executive Walkaround (SEW), Suicide Prevention Rounds, Fall & Physical Restraint Safety Rounds and Mortuary Rounds, among others. These rounds cover a wide range of topics related to patient safety, environmental safety and infection control in clinical areas such as wards, operating theatres, endoscopy suites and outpatient departments.

Hospital management, hospital/Cluster Q&S offices and subject matter experts have all actively participated in these rounds, sharing their expertise with frontline staff to ensure that Q&S standards are met. These standards include, but are not limited to, medication safety, suicide prevention, surgical safety, occupational safety and health (OSH), and data privacy.



SEW to PYNEH Occupational Therapy

❖ Executive Partnership Programme

In June 2022, CQ&S Office welcomed six nurses from HKEC hospitals / GOPCs as the first batch of Executive Partners (EP)(Q&S). The aim of the EP(Q&S) programme was to involve clinical nurses in the planning and implementation of Q&S activities/projects, while providing them with opportunities to learn from the process.

We believe that by involving clinical nurses in Q&S activities, we can achieve better healthcare outcomes for our patients and create a safer and more fulfilling workplace for our colleagues.



1st batch of EP(Q&S)

Correct Patient Identification

During the sixth wave of COVID-19 pandemic, there were two incidents of misidentification of deceased persons. In response, the EP(Q&S) programme initiated two projects to use information technology to improve the accuracy of body identification during body collection in the Accident & Emergency Department and in the viewing room of the hospital mortuary.

The EPs also explored the possibility of using barcode scanning to improve the identification of newborns in the labour room and expressed breast milk (EBM) in O&G Department. These projects aimed to improve patient safety and reduce the risk of misidentification.

CQ&S Office has been implementing the Surgical Safety Checklist for over a decade. EPs have planned an observational audit of surgical safety with theatre nurses to examine compliance with current procedures and make recommendations for revision where necessary.



EPs visited O&G for EBM identification



Discuss with OT nurse on Surgical Safety Audit

Nutritional Care

"Soft Moon Cake Event for Dysphagia Patients" was organised by EPs and Cluster Nutritional Care Committee to promote dysphagia diet safety during Mid-Autumn Festival. A total of 28 wards (619 patients) from Cluster hospitals participated in the event.



CCE at Soft Moon Cake Event



Soft Moon Cakes

Occasionally there were incidents related to the loss of patients' dentures in wards. The loss of dentures jeopardises patients' eating and nutrition. Therefore, EPs led a task force to prevent the loss of dentures through cluster-wide standardised documentation, signage to improve clinical handover and a denture bowl.



Clinical Ward Pharmacy Service on Discharge Medication Management in Acute Medicine and Geriatrics (M&G) Wards at RTSKH

To improve the quality of patient pharmaceutical care and medication safety, the Clinical Ward Pharmacy Service has been implemented in four acute M&G wards at the Ruttonjee & Tang Shiu Kin Hospitals (RTSKH). Following a successful pilot service in September 2022, the Clinical Ward Pharmacy Service was officially launched in October 2022.

The Clinical Ward Pharmacy Service is designed to facilitate the medication prescription process and support patients in managing their medication post-discharge. The service includes pre-discharge medication review, facilitation of discharge medication prescribing and medication advice for patients or carers. Medication counselling highlights and explains changes in medication therapy during hospitalisation, common side effects and advice on managing side effects.

By providing medication advice and support, the Clinical Ward Pharmacy Service aims to improve patient discharge efficiency and medication safety. It is also expected to improve the overall patient experience throughout the inpatient journey.

Discharge summary and reminder to patient



Clinical pharmacist performing medication review

Discharge medication reconciliation

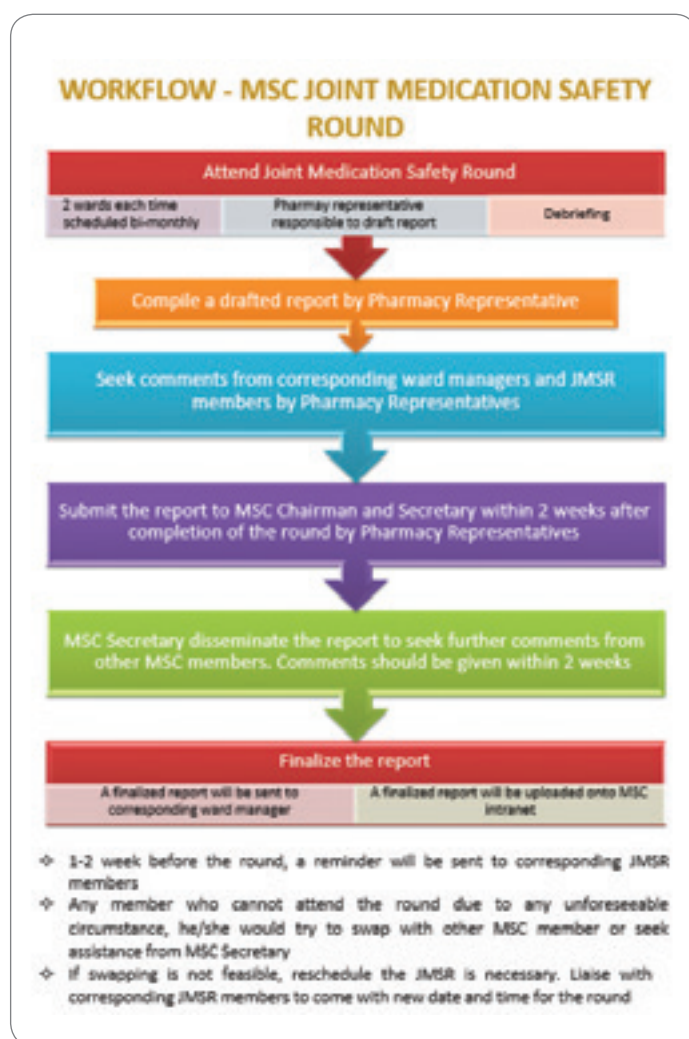
New Cycle of Joint Medication Safety Round (JMSR)

Since 2014, Ruttonjee Hospital (RH)'s Medication Safety Committee (MSC) has established a multidisciplinary JMSR, comprising doctors, nurses and pharmacy representatives. The JMSR aims to promote a culture of medication safety, increase frontline staff awareness of medication safety and reduce medication incidents by visiting all wards and areas of the hospital, including the pharmacy department at RTSKH.

Based on the experience of previous JMSR cycles, the checklist, assessment methodology, visit cycles and composition of the visiting members were refined and optimised. In the newly launched JMSR cycle 2022/23, a checklist was used to synchronise with HAHO MSC Self-Assessment Guide for Medication Safety. Using this checklist, visiting members can check twelve key areas, including checking and managing drug allergies, managing high-alert drugs, drug storage, drug administration and the use of Inpatient Medication Entry (IPMOE).

To quantify the results of JMSR, visiting members would use a scoring system that classifies findings as fully implemented throughout, partially implemented in some areas, or considered but not implemented. JMSR has been revised from one ward visit per month to two wards per month in order to speed up visits throughout the hospital and maintain the momentum in medication safety. The composition of the visiting members was also optimised to include a Q&S representative from RH MSC to ensure consistency and standardisation of the visits.

Following each JMSR visit, a written report with recommendations is provided to the ward. The findings, identified medication safety risks and best practices are also shared with staff at various nursing meetings, management meetings and medication safety forums.



Workflow on MSC joint medication safety round

Section	Description	A	B	C	Source of Information
1	Drug Allergy-Checking Mechanism				
1.1	What is the current practice to handle patient with Known Drug Allergy at your ward upon admission?				AD/AS/PT/OT/CC
A	Please input:				
	- Alert signage is posted up at bed head				
	- Identification bracelet with red design				
	- Others				

Joint medication safety round checklist



Medical staff performing medication review

Tung Wah Eastern Hospital (TWEH) Continuous Quality Improvement (CQI) Forum 2022

The 19th TWEH CQI Forum returned as a hybrid event on 24 May 2022, bringing together for the first time over 150 participants from HKEC and HAHO in both virtual and on-site formats. The theme of this year's forum was *"Patient Journey in COVID-19 Era: Opportunities & Challenges 疫境新機見賢思齊"*, with the aim of focusing on the positive aspects that the pandemic has brought. These included the new normal that we are entering and the significant improvements in healthcare that have been made possible.



In addition to 23 posters showcasing insights and enthusiasm from six different disciplines, seven oral presentations were given. These presentations illustrated the ongoing activities that had been implemented to effectively deliver quality care during the pandemic. The keynote speech was delivered by Mr Stephen LEUNG Kwok-keung, former Country Manager of Pfizer Hong Kong & Indonesia, who presented ways to make rapid adaptations in a crisis and promote long-term change.

The organising committee, which won HKEC Outstanding Teams Award in 2022, worked with participants to find innovative ways to transform the Forum. This included offering e-abstract books, building a dedicated website, and creating an intelligent review and scoring system for judges to enjoy a seamless paperless review process. By remaining adaptable and agile, we can continue to turn challenges into opportunities to improve and transform, and emerge stronger when we reach the light at the end of the tunnel.



Preventing Falls from Hoists

To reduce hoist-related injuries and ensure safer patient transfers, a series of train-the-trainer workshops on ceiling hoists were conducted for nursing and supporting staff. The workshops included theoretical and practical demonstrations on different types of hoists, patient groups and hospital settings, with staff required to carry out return demonstrations as both operators and patients. An easy-to-follow guide to the updated hoist check procedure was also provided to ensure staff were up to date with safety protocols. The programme aimed to keep patient and staff safety at the forefront of every transfer.



Implementation of Electronic Intraocular Lens (IOL) Inventory Management System in TWEH Eye Operating Theatre

To improve efficiency and streamline inventory management procedures, TWEH Operating Theatre, a leading provider of day surgery services in HKEC, has implemented a new electronic inventory management system for IOLs. With over 600 IOL inventory counts per month, the new system has significantly reduced the time-consuming manual checking process and eliminated the potential for human error in data processing, resulting in more accurate and efficient inventory checks and up-to-date inventory records.



❖ Implementation of Wireless Tracking Devices in Ophthalmic Outpatient Clinics

TWEH has implemented the use of wireless tracking devices in its OPH outpatient clinics to ensure effective communication for hearing-impaired patients. Upon registration, hearing impaired patients are provided with a wireless tracking device that is activated by clinic staff to alert patients to their appointments. This initiative has significantly improved the accessibility of services and the overall patient experience, particularly for those with hearing impairments, by providing prompt and efficient care in a welcoming and inclusive environment.



❖ Implementation of e-Vital System in TWEH and Cheshire Home (CCH)

Since May 2022, TWEH has fully implemented the e-vital system in ten inpatient wards, one day ward, one procedure room and four operating theatres in the Department of Medicine & Rehabilitation and the Department of OPH. Clinical teams can view a patient's current vital signs anytime, anywhere within the Clinical Management System (CMS). According to a recent survey, over 85% of clinical staff agreed that the system has improved patient care workflow and reduced documentation errors. CCH implemented the e-Vital system in the BC3 and BC2 wards on 28 June and 20 July 2022 respectively. It is expected to be fully implemented in all CCH wards during the 2022/23 financial year.



Methicillin-resistant Staphylococcus Aureus Decolonization Programme in Wong Chuk Hang Hospital

Wong Chuk Hang Hospital (WCHH) provides extended care and infirmary services to patients for long-term management. In 2020, approximately 31% of newly admitted patients were found to have MRSA on admission to WCHH. To prevent the spread of MRSA, various infection control measures have been implemented for all MRSA-infected patients in accordance with the relevant HA control guidelines. These measures include contact precautions, cohort or corner bed isolation from non-infectious patients, proper use of personal protective equipment, hand hygiene, environmental infection control measures and designated medical devices. As a result, the MRSA decolonisation programme was piloted at WCHH in 2021, with 15 patients successfully decolonised.

Due to the successful results of the programme and the detection of MRSA in approximately 30% of newly admitted patients in 2021, the programme has been continued to date. Following an individual assessment by both ICT and the Case Medical Officer, MRSA screening and decolonisation are initiated in patients without ongoing antibiotic treatment or without deteriorating open wounds. This is followed by a 5-day decolonisation regimen, including daily body washing with 4% chlorhexidine. For those found to have MRSA from nasal swabs, 2% mupirocin nasal ointment is also prescribed to be applied to the patient's anterior nose three times a day for five days. Contact precautions and physical isolation are discontinued if two more sets of MRSA screening are negative 48 hours after the decolonisation treatment.

With the concerted efforts of ICT, doctors, nurses and support staff, the overall decolonisation programme has been successful in reducing the risk of acquiring MRSA infection during hospital stays and preventing transmission to other patients. It could also improve the quality of patient care, as patients may feel less socially isolated and upset. Finally, it could reduce the workload of healthcare workers who have to implement infection control measures for patients with contact precautions.



Hong Kong West Cluster

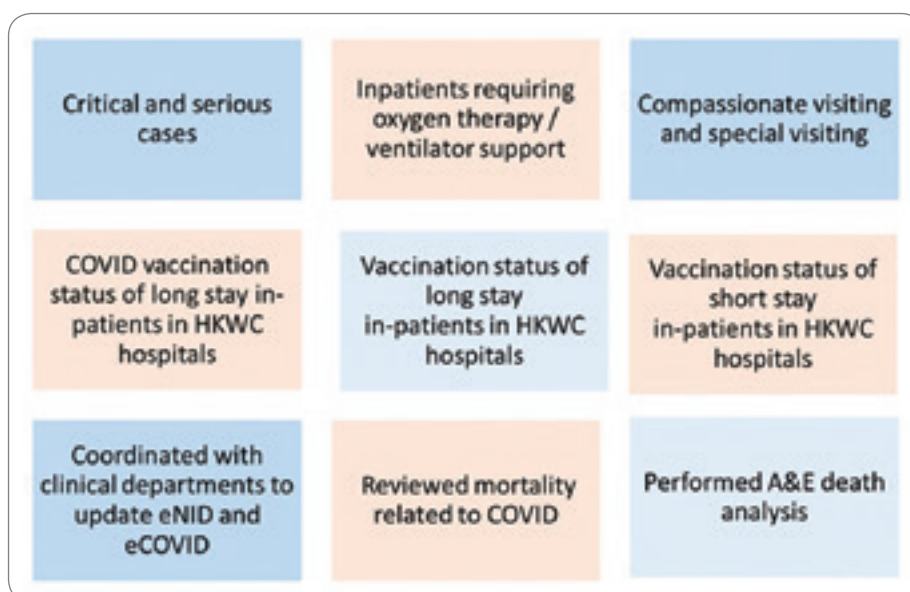
CORPORATE / CLUSTER INITIATIVE

Combat COVID-19 pandemic

The Hong Kong West Cluster (HKWC) implemented additional measures in phases to combat COVID-19 pandemic and address the challenges throughout the year as follows:

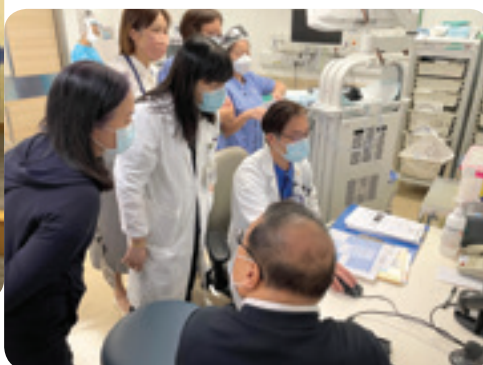
- Established a comprehensive hospital and clinical governance structure to manage the situation, with 5 key committees, including a clinical mini Major Incident Coordinating Committee (MICC), a management min-MICC, a PPE Task Force, a Service Adjustment and Resumption Committee, and a Revamp Special Outpatient Department (SOPD) Committee.
- Enhancement measures at Department of Accidents and Emergency at the Queen Mary Hospital (QMH)
- Conversion of general wards at QMH to COVID designated wards
- Support from cluster convalescent hospitals and conversion of the Fung Yiu King Hospital (FYKH) at HKWC as a designated hospital for COVID patients
- Strengthening of clinical governance and improving communication through daily interdepartmental and interdisciplinary clinical meetings at 1.30 p.m.
- Enhancement of the Community Geriatric Assessment Team (CGAT) to Residential Care Home for Person with Disability (RCHD)
- Arrangement of haemodialysis service on the 5th wave
- Handling of dead bodies.

In addition, Q&S team collected and analysed COVID-related data to provide an overview of the COVID situation in HKWC.



eConsent Implementation

In line with HA's strategic plan to develop smart hospitals and the corporate direction to digitally transform the informed consent process, HKWC has been rolling out eConsent since the third quarter of 2022. The Q&S department played a key role in preparing for the implementation, including assisting with the preparation of consent data, localising training materials, conducting briefings and training sessions, and liaising with stakeholders. HKWC pioneered the use of Wacom's Signature Pad, installed on a CMS workstation in the consultation room setting for eConsent, to streamline the user experience, which was supported at corporate level.



Quality & Safety Rounds

In 2022, HKWC hospitals continued their theme-based clinical rounding. The Q&S team collaborated with pharmacists, ICT and OSH team to conduct theme-based rounds that included patient safety, environmental safety and infection control. The main aims of the rounds were to share best practice and identify areas for improvement. Staff engagement was a key objective to provide a platform for communication with frontline staff and to understand their needs and difficulties. The recommendations and acknowledgements of good practice were then sent to the relevant ward managers for further management.

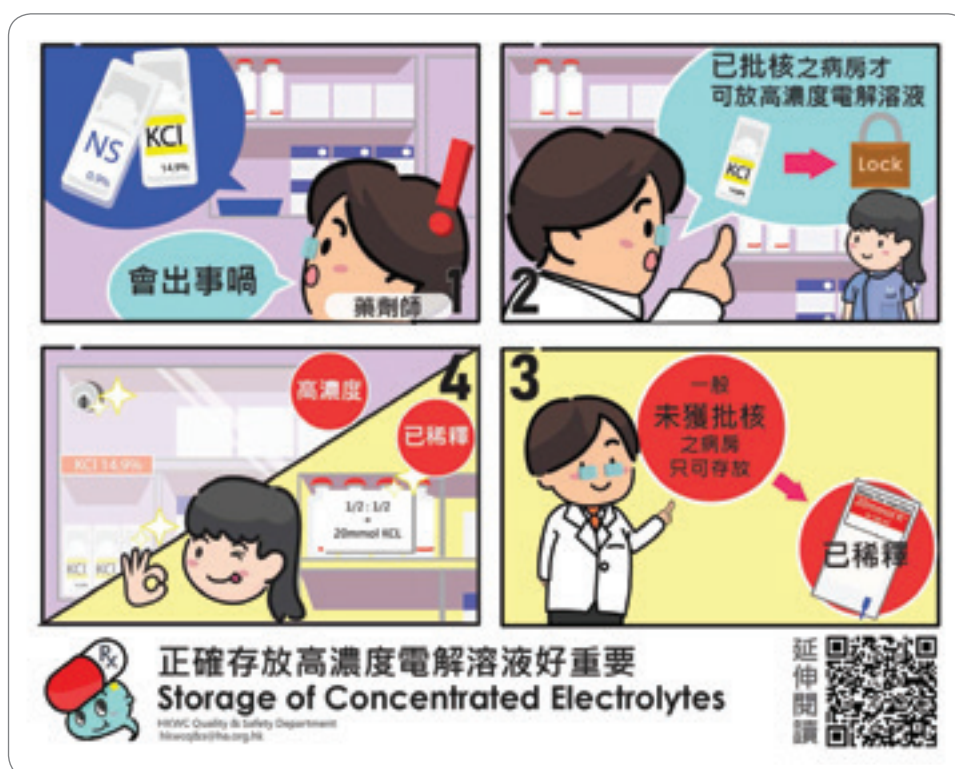
PROJECT HIGHLIGHTS ON RISK REDUCTION AND QUALITY PROGRAMMES

Medication Safety

Concentrated Electrolytes Management

There are three aspects to the management of concentrated electrolytes: governance structure, staff education and monitoring. Clinical departments store concentrated electrolytes as ward stock according to the criteria set out in the corporate policy and seek approval from local hospital committees. If difficulties arise, they can seek advice from HKWC Medication Safety Committee. Approved lists must be submitted to HKWC Drug & Therapeutic Committee for approval.

Staff have been educated on the safe storage and administration of concentrated electrolytes through incident sharing and patient safety cartoons. Walk rounds and audits were used as tools to monitor compliance with the standard.



Management on Dangerous Drugs (DDs)

a Pilot Smart Drug Cabinet

The smart drug cabinet was piloted in two medical admission wards. It was mainly used for the storage and administration of DDs, providing an intelligent electronic interface with the alert checking system to check the patient's allergy history and facilitating the counter-checking process for the administration of DDs. Positive feedback on improving medication safety and ensuring proper documentation was received.

b Standardization of Labelling for Dangerous Drug (DD) container

The Tall Man Letter is used to standardise the labelling of DD containers to distinguish between similar DD names. The system is already in place in Grantham Hospital (GH) and QMH. The Duchess of Kent Children's Hospital at Sandy Bay (DKCH), FYKH, MacLehose Medical Rehabilitation Centre (MMRC) and Tung Wah Hospital (TWH) also completed the standardisation in 2022.



c Dangerous Drug Register (DDR) Documentation

The standard of DDR documentation format was further strengthened during Q&S rounds to ensure that all transactions involving DDs are properly recorded.

Drug Library in Smart Infusion Pump

To ensure the safe use of infusion pumps, especially when handling high-alert drugs, the use of a drug library in a smart infusion pump was promoted as a safeguard in the Cardiac Care Unit (CCU).

Independent Double-Checking Promulgation

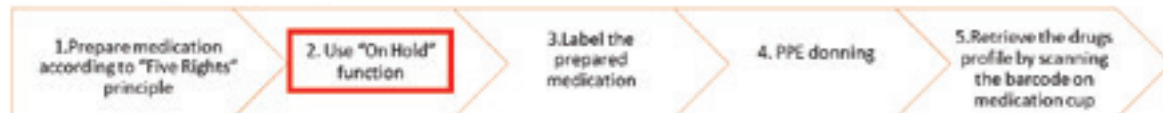
Practical tips on independent double checking throughout the Administration of Medication (AOM) process were disseminated and reinforced through posters and workshops. TWH held three identical independent double-checking workshops in July 2022.



New AOM workflow in isolation ward

In response to patient misidentification issues in the isolation unit, AOM workflow was reviewed and a new workflow was implemented as shown below.

Before entering the AIIR room



***Ensure visual checking**

Entering the AIIR room



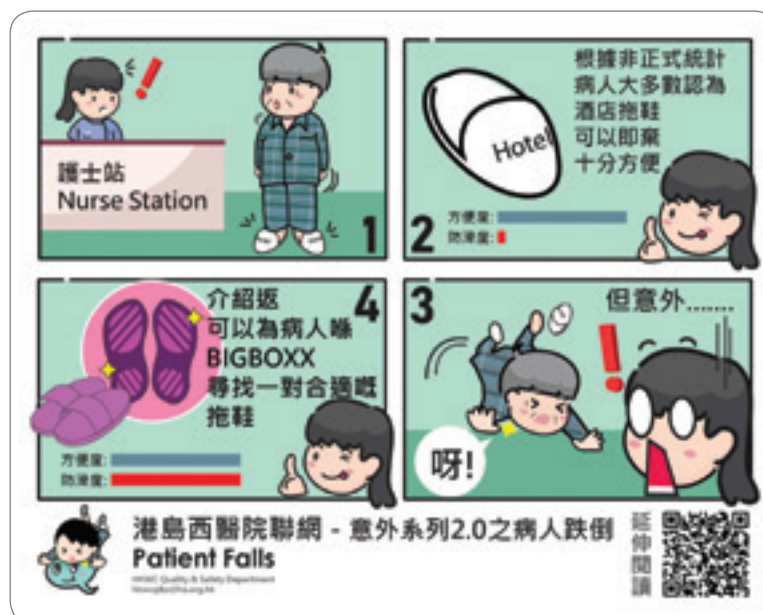
Patient Falls Prevention

HKWC has dedicated itself to the prevention and management of patient falls, from reducing the number of incidents to reducing the severity of falls. In addition to ongoing post-fall reviews, the Q&S Department visited individual clinical departments to understand their difficulties and tailor specific fall prevention strategies.

An audit of fall risk assessment and care plan documentation was carried out at HKWC in June 2022 and revealed a suboptimal understanding of fall risk assessment. As a result, an animated video on fall risk assessment will be tailored to serve as standard training material for nurses. The video aimed to guide them in an entertaining way to perform the Morse Fall Scale (MFS) accurately.

Two patient safety comics on fall prevention were released in 2022 Q2.

In addition, an intentional round was piloted at Tuberculosis & Chest Unit (TBCU) of GH to prevent patient falls through proactive interaction and to promote bedside nursing.



❖ Prevention of Patient Suicide

The Q&S forum “A closer look at Inpatient Suicide” and “Environmental Risks & Preventive Measures” were held in 2022 Q3. To facilitate staff identify patients at-risk of suicide on admission, the Geriatric Depression Scale (GDS)-4 assessment tool was introduced in 2021. The pilot was extended to other specialties/departments with high-risk groups, including oncology patients, palliative care patients and other long-term medical conditions in 2022 Q4. The vast majority of users agreed that the assessment tool was easy to interpret and recommended this new suicide assessment tool to facilitate early identification of potential suicide risk.

An anti-wandering system was also piloted in medical admissions wards and end-users recommended this user-friendly system as it increased staff awareness of patient movement in the ward and saved staff time in monitoring high-risk patients. It was planned to extend the system to other departments as a way forward.

LOGISTICS IMPROVEMENT AND SYSTEM ENHANCEMENT

❖ Specimen Tracking System for Precious Specimen

Tracking precious specimens has been piloted in the Operation Theatre and Integrated Endoscopy Centre in QMH and TWH in 2019 and 2021, respectively. In order to eliminate the manual process of specimen tracking, a tracking system was implemented in DKCH from 2022 Q2.



Centralized Type & Screen Blood Taking Service

A service framework for a centralised blood-taking service for type and screen (T&S) for patients at the Ambulatory Integrated Centre was established in 2022 Q1. The standardised T&S procedure could reduce the risk of T&S errors and waiting times. Approximately 100 outpatients from different specialties come for T&S each week. Trained nurses are authorised to perform T&S procedures to prevent T&S incidents and incorrect blood transfusions.

Integrated ONE Massive Transfusion Protocol

The Massive Transfusion Protocol (MTP) was previously limited to adult trauma patients. An integrated ONE Massive Transfusion Protocol for QMH paediatric and adult patients was developed and implemented in August 2022. As of December 2022, there were 15 cases in which the protocol was activated.

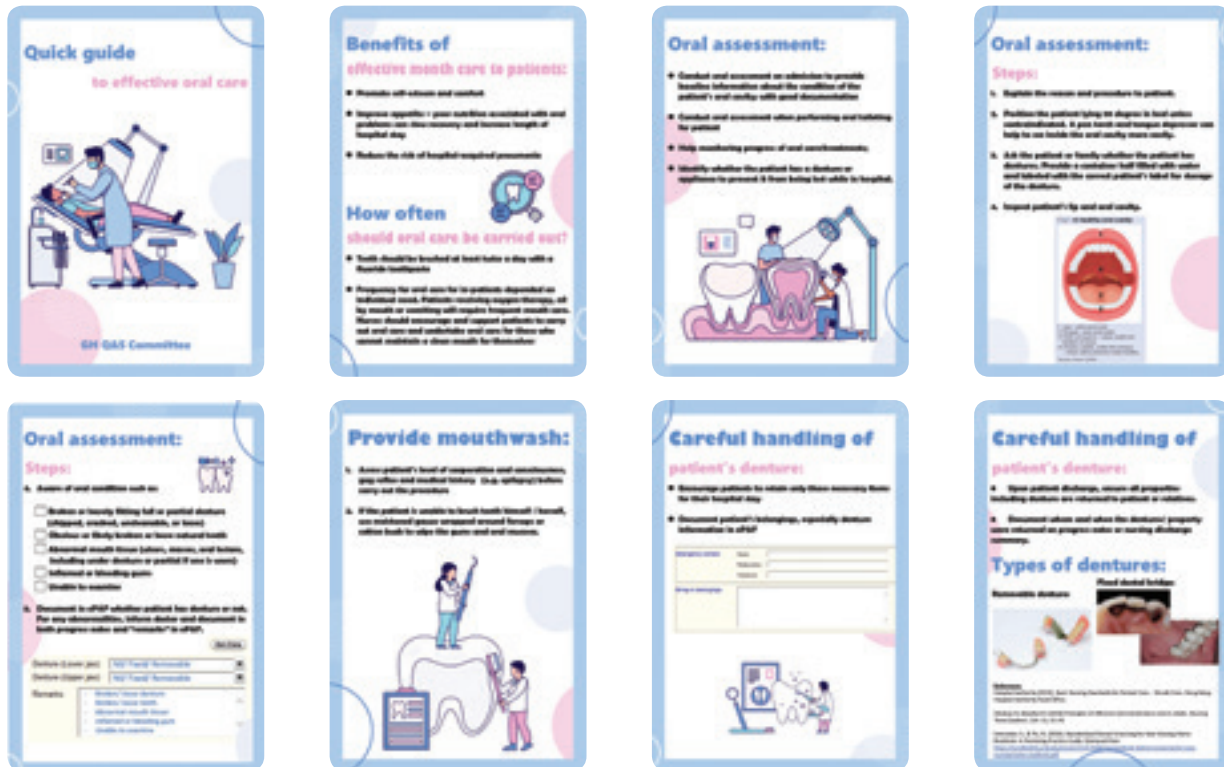
Surgical, Interventional & Procedural Safety

In 2022, a working group with representatives from HKWC operating theatres was formed and developed the “HKWC Standard of Practice on Counting of Accountable Items” and the “List of Accountable Items”. These were implemented in HKWC perioperative areas in 2022 Q4.



Effective Oral Assessment and Care

An incident was reported where a denture was found in a patient's airway. As a result, the GH Q&S office developed a quick guide and cue card on oral assessment and care for staff reference to reinforce oral condition inspection and proper documentation of denture status on the electronic Patient Assessment Form (ePAF).



STAFF EDUCATION AND TRAINING

Simulation Training Classes

In order to improve the teaching and learning process, HKWC prepared an operation manual for the Simulation and Training Centre (STC), developed a course curriculum and organised various training sessions. The STC successfully completed three classes of corporate Extra-corporeal Membrane Oxygenation (ECMO) training, seven classes of specialty-based simulation, two classes of cross-specialty drills and one class of joint hospital/Cluster drills in 2022.



Personal Data Privacy

To raise employee awareness of personal data protection, the QMH Newsletter published a publication entitled *"Beware of Social Media Apps, Protect Privacy!"*, and seminars and forums were held at HKWC.



Drill Exercise

HKWC organizes (organized) various drills to ensure preparedness for different scenarios. These drills included (included) MTP drill in the Operating Theatres, Paediatrics Department and Obstetrics and Gynaecology Department in QMH; IPMOE downtime drill in GH; CPR drill and workplace violence training and drill in TWH.



❖ Patient Safety Comics

Patient safety messages were effectively communicated to frontline staff through patient safety comics, with a total of eight comics published in 2022, covering topics such as medication safety, fall prevention and correct patient identification.

❖ Leadership Programme

To equip nursing leaders with Q&S knowledge, incident management processes and incident reporting skills, newly promoted Advanced Practice Nurses and Ward Managers were introduced to these concepts.

OCCUPATIONAL SAFETY AND HEALTH

❖ Simulation Training Classes

To address the ventilation issue related to OSH Ordinance at HKWC GOPCs and Pharmacies, three rounds of comprehensive assessments were conducted from Q1 to Q2 of 2022, focusing on air changes per hour (ACH), airflow and CO2 levels.

In 2022 Q2, the Facilities Management Section and OSH teams worked together to install pre-treatment units and exhaust fans in the affected consulting rooms to increase the supply of fresh air. As a result, CO2 levels were effectively reduced to less than 590 ppm and all measured parameters were within Labour Department's guidelines.



To address staff concerns about working in hot and humid weather, HKWC OSH team conducted a series of on-site heat stress assessments for high-risk departments, including Shum Wan Laundry and Catering, from July to August 2022. A total of 29 additional fan coolers were installed in the relevant areas and all ironing machines were connected to direct exhaust ducts to minimise the risk of staff being exposed to excessive heat. In addition, existing measures were reviewed and assessed in over 30 high-risk departments, and four webinars on the Prevention of Heat Stroke at Work were arranged.



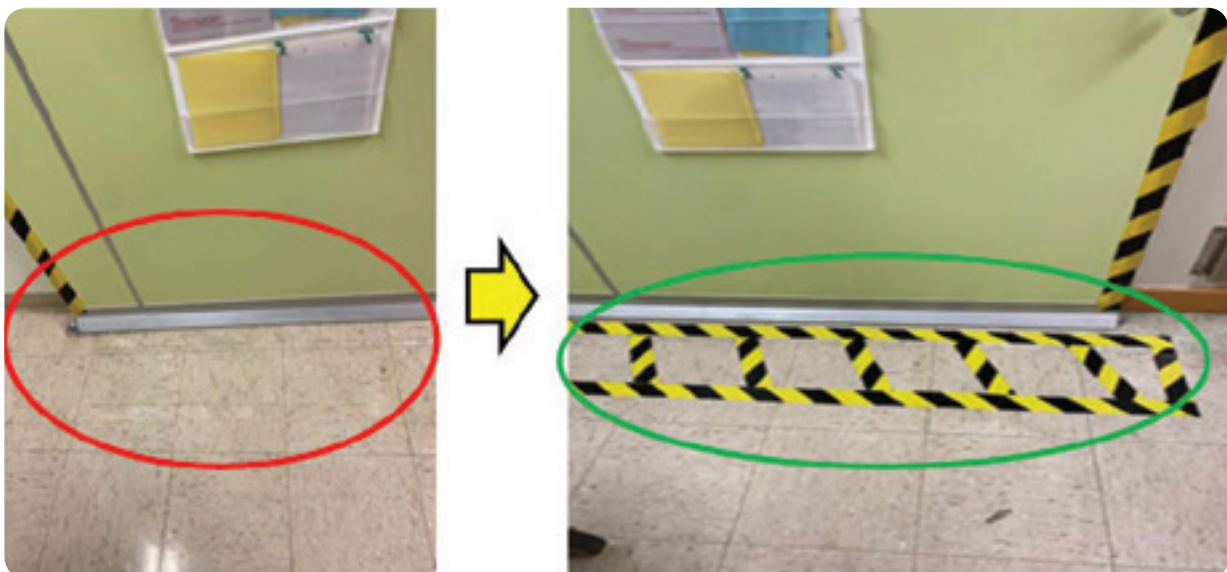
Way Forward

In 2023, HKWC plans to implement a series of quality improvement projects and staff education and training initiatives. These programmes will focus on the prevention of patient falls, medication safety and suicide precautions and will be implemented in phases to strengthen and maintain patient safety. Various forms of staff training will be provided, including drills, simulation training, forums, game booths and workshops, with the aim of increasing staff knowledge and awareness to maintain quality standards.

Kowloon Central Cluster

Queen Elizabeth Hospital (QEH) – Structured Q&S Round

In line with HAHO management direction to maintain the momentum of CQI, the Structured Q&S Round was initiated in June 2022. With input from experts from various disciplines, including the Q&S Department, Central Nursing Division (CND), ICT, OSH, Medical Records Office (MRO), and the Pharmacy Department, risk areas were identified and recommendations were shared with clinical units to strengthen patient safety. A total of 20 sessions of structured Q&S rounds were conducted in 2022.



KWH – The Steps Towards IPMOE Implementation

Following the Master Redevelopment Plan, KWH would implement IPMOE in the new KWH in 2023. All preparatory work has started this year and the following milestones have been achieved:

1. IPMOE subgroups were formed in January 2022 to finalise the verbal order list, standing order and exclusion list for Drug and Therapeutics Committee (DTC) endorsement.
2. IPMOE Contingency Plan was formulated and endorsed by the DTC in July 2022.
3. A training site with IT support was established.
4. All staff were invited to design the IPMOE logo.
5. The approved Standing Orders and Drug Lists were submitted to HOIT&HI for configuration in August 2022.
6. IPMOE Kick-off Forum was held on 26 August 2022 to announce the approaching new era of medication safety.
7. IPMOE portal website of KWH was launched in July 2022. All information about IPMOE can be accessed through the website.
8. New workflows related to medication handling and patient transfer have been formulated and uploaded to the website. These workflows include transfer from IPMOE hospital to non-IPMOE hospital, transfer from IPMOE ward to non-IPMOE ward, transfer from non-IPMOE ward to IPMOE ward, transfer from IPMOE ward to OT and transfer from OT to IPMOE ward.
9. A system walkthrough was held on 24 October 2022 with the participation of HOIT&HI.
10. Training of nurses started on 27 October 2022 and is expected to be completed by 2023 Q1.
11. Preparation of the KWH IPMOE Manual is currently in progress.

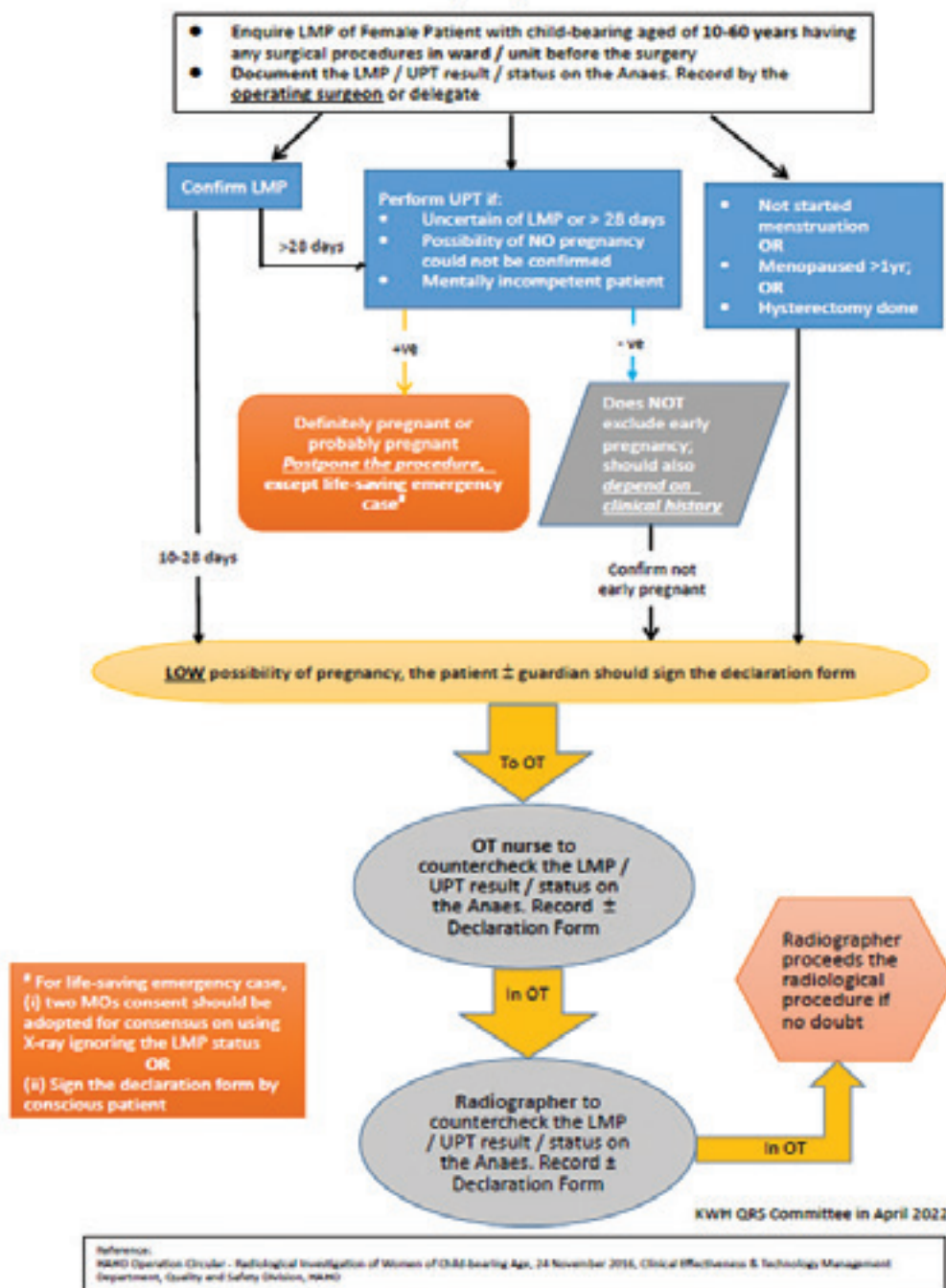


KWH – The implementation of the Workflow on the Confirmation of Pregnancy Status of Patients before X-ray Procedures in the Operating Theatre

At a meeting of the Radiation Safety Committee of KWH, HAHO circular on “*Radiological Investigation of Women of Child-bearing Age*” was reiterated. To ensure patient safety, a workflow for confirming the pregnancy status of female patients of childbearing age prior to high-dose x-ray procedures, including during surgical procedures, was formulated and promulgated to all departments. KWH Q&S coordinated the formulation of the workflow and facilitated its implementation.

1. A working group was formulated with members from various departments, including Diagnostic and Interventional Radiology (D&IR), Anaesthesiology and Operating Theatre Services, O&T, NS, O&G, Surgery, and M&G.
2. The Working Group reviewed relevant papers, studies and protocols.
3. The workflow for confirming the pregnancy status of patients before X-ray procedures in the operating theatre and the Chinese and English versions of “*Declaration for Radiological Examination during Surgical Procedure - Woman of Child-bearing Age*” were approved by KWH Q&S Committee in April 2022.
4. Medical record numbers were applied to the Chinese and English versions of “*Declaration for Radiological Examination during Surgical Procedure - Woman of Child-bearing Age*”.
5. A briefing was held during the KWH Ward Manager (WM) Coordinating Committee meeting to introduce and disseminate the workflow.
6. Full implementation of the workflow on 2 May 2022 uneventfully.

Workflow on the Confirmation of Pregnancy Status of Patients before X-ray Procedures in the Operating Theatre



Kowloon Hospital (KH) – Patient Safety Round

Due to COVID-19 pandemic, the structured Q&S round at KH was suspended until June 2022. Two types of patient safety rounds were conducted afterwards: (1) quarterly patient safety rounds, and (2) thematic or ad hoc patient safety rounds in response to a specific risk or Adverse Incident Reporting System (AIRS) incident. These rounds shared best practice, identified potential areas of risk and made recommendations to strengthen patient safety.



1a.



1b.



1c.



1d.

Figure 1. Four patient safety round has been conducted since it was resumed in June 2022. 1a. Patient safety round on “specimen handling & laboratory” was conducted on 17 June 2022. The specimen delivery workflow from ward through porter to laboratory, was inspected; 1b. Visit to Central Sterile Supplies Department (CSSD) on 22 Sept 2022. Equipment were stored neatly and well labelled; 1c. Yearly focused safety round on IP suicide prevention was held on 9 Aug 2022. Potential ligature points were identified with mitigation measures proposed; 1d. Medication safety round on high alert medication was held on 6 Sep 2022. Standardized TallMan lettering is used in labelling all Dangerous Drugs.

KH – Remote Video Visit

Video visitation services have been provided in all wards of KH since visits were suspended under the emergency response level. With the fifth wave of COVID-19 pandemic, we expanded the scope of our service by changing the service model from on-site video visit counters to remote telecommunication outside the hospital via a zoom link provided by the Kowloon Central Cluster (KCC) Tele-Visit Management System (TVMS). This has the added value of enabling critically ill patients to have tele-visits with their relatives who may be overseas or in quarantine.



2a.



2b.

Figure 2a&b. Training was provided to all frontline staff to ensure smooth provision of remote video visit service.



3a.



3b.

Figure 3a & b. Remote video visit allowed patients to be visited by relatives virtually through telecommunication when physical visit was not allowed during COVID-19 pandemics.

Hong Kong Buddhist Hospital (HKBH) – Drug Supply after Pharmacy's Service Hours - Smart Cabinet in HKBH

A smart cabinet (Omniceil) was introduced at HKBH in April 2022 to support the supply of medicines after pharmacy opening hours. This cabinet has special features to ensure storage security and to increase efficiency and medication safety.

Medication Safety

The system interfaces with CMS and the Pharmaceutical Management System (PMS). Nurses can access the patient's drug profile and select the correct medication from the patient's drug profile after verification by the pharmacist. Checks for patient drug allergies and adverse drug reactions are also available. The cabinet is made up of lockable and controllable compartments that allow for the separate storage of high-alert medications such as concentrated electrolytes. In addition, the cabinet uses Pick-to-Light technology with guide lights to direct nurses to the specific location of each medication.



Efficiency

The cabinet has a large storage capacity of up to 400 items. Currently, 187 items are stored, with the potential to increase the number of items according to the needs of the service. The cabinet can improve efficiency by reducing the turnaround time from prescription to administration, especially after pharmacy hours.

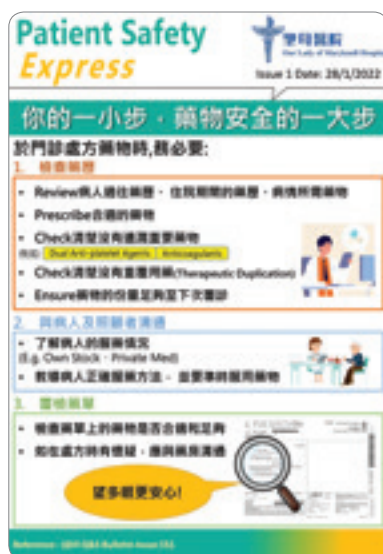
Security

The cabinet requires users to log in using either their CORP ID or fingerprints. All activity in the Omnicell is logged and traceable, increasing security measures.



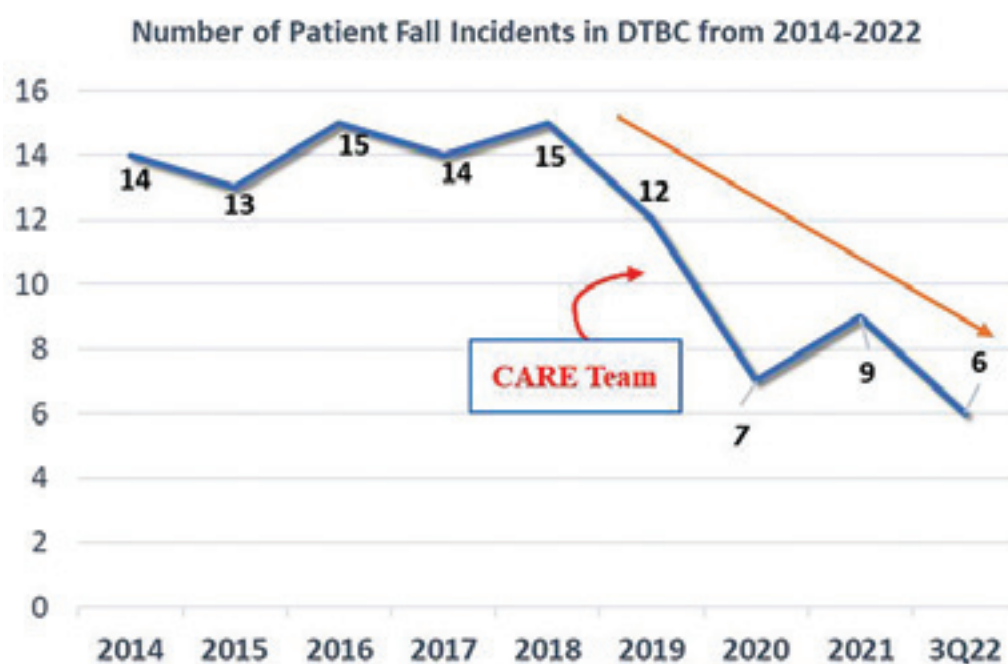
Our Lady of Maryknoll Hospital (OLMH) – OLMH Patient Safety Express

The OLMH Patient Safety Express has been published at OLMH since 2022 to increase staff awareness of various Q&S-related issues and to remind them of proper practices when caring for patients. A total of five issues of OLMH Patient Safety Express were published in 2022, covering areas such as medication safety, patient identification, specimen collection, informed consent processes and the importance of a “speak up” culture.



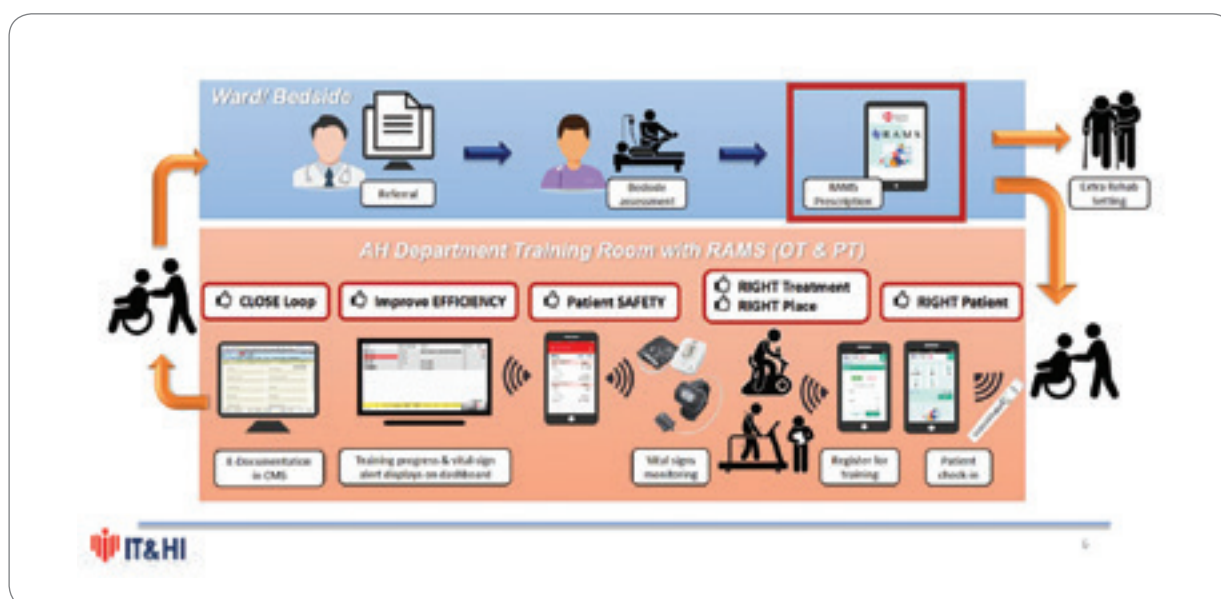
Tung Wah Group of Hospitals (TWGHs) Wong Tai Sin Hospital (WTSH) – CARE Team: Fall Prevention Enhancement Programme in the Department of Tuberculosis and Chest (DTBC)

The programme in DTBC aims to promote a culture of patient safety that improves fall prevention and sustains lower fall incidence. The CARE TEAM strategies included: (1) **“Customising”** and maintaining a safe environment by implementing *“Patient Safety and Toilet Round”* “衣食住行”. (2) **“Alertness”** to various risk factors to provide the appropriate preventive measures, such as fall risk handover, warning signs and bed exit alarm to increase staff awareness of high-risk cases. (3) Timely **“Review”** of high risk cases and post-fall analysis by the team. (4) An **“Education”** programme with a proactive strategy, comprehensive fall assessment and interventions was provided to staff. The incidence of falls has been significantly reduced and the programme is being continually reviewed and optimised to achieve better outcomes.



WTSH - Implementation of RAMS in WTSH

To improve the Q&S of patient identification, and to facilitate training workflow and e-documentation in TWGHs Wong Tai Sin Hospital, an extended pilot of RAMS 2.0 (Rehabilitation Activities Management System) was implemented in the physiotherapy department. After preparatory work such as hardware procurement, staff training, workflow arrangements and contingency planning, RAMS 2.0 was rolled out in October 2022. This system provides an electronic platform for staff to prescribe exercises, record patients' vital signs, and monitor patients' progress and performance during training. Clear, up-to-date and effective electronic documentation allows physiotherapists to spend more time with patients.



Hong Kong Children's Hospital (HKCH) - The "COPPER" equips fresh graduated nurses to enhance adaptation and face challenges

Introduction

In order to improve the adaptation and integration of new nurses into the hospital, a tailor-made "COPPER" orientation programme has been developed in addition to the preceptorship programme and the KCCian programme. The characteristics of copper, namely its softness and malleability, make it an essential element for survival. The acronym "COPPER" stands for "Communication", "Orientation", "Preceptorship", "Paediatric focus", "Ethics" and "Resilience". Through these key elements, we aim to help new graduates to (i) develop "soft" skills, e.g., communication skills to patients, relatives and colleagues; (ii) develop "malleable" characters with high resilience abilities; and (iii) acquire "survival" skills to cope with daily paediatric nursing interventions and deliver safe care to paediatric patients.



What we have changed



The "COPPER" programme has been extended from four to ten full days and has been expanded to include more skills-based workshops and interactive elements. The new additions include theoretical input, hands-on practical sessions with return demonstration, small group teaching and clinical visits. The content of the programme covers most of the paediatric areas of focus at HKCH, such as operational policy and guidelines, child development, neonatal resuscitation and others. In addition, clinical psychologists from HAHO were invited to provide resilience training, and hospital management, clinical managers and frontline staff were involved in the initial stages of the programme. Clinical supervisors were also invited to present the characteristics and operational functions of their departments and specialties.

Feedback

All participants expressed that the lectures and workshops helped them to acquire basic skills and practices before working in the actual clinical environment. Most importantly, it facilitated their adjustment and gave them the confidence to take on the role of Registered Nurse (RN) in an unfamiliar working environment, even in critical care.



Hong Kong Eye Hospital (HKEH): Implementation of Smart Hospital Initiatives in HKEH

With the advancement of healthcare technology, HKEH has implemented several smart initiatives to improve staff experience and clinical service efficiency.

Smart Cabinet

A Smart Cabinet was installed at Hong Kong Eye Hospital, providing an advanced way to store ward stock and stand-by medicines for use outside pharmacy opening hours. The Smart Cabinet's allergy check function reduced the risk of inappropriate medication use, thereby improving medication safety. The implementation of the Smart Cabinet also provided an efficient way of stocking the wards and improved drug security and traceability.



e-Vital system

The e-Vital system was successfully implemented in the Continuous Management Unit (CMU). The system facilitated the clinical workflow and staff were able to view the patient's current condition via CMS. Vital signs data was automatically uploaded, minimising manual recording errors.



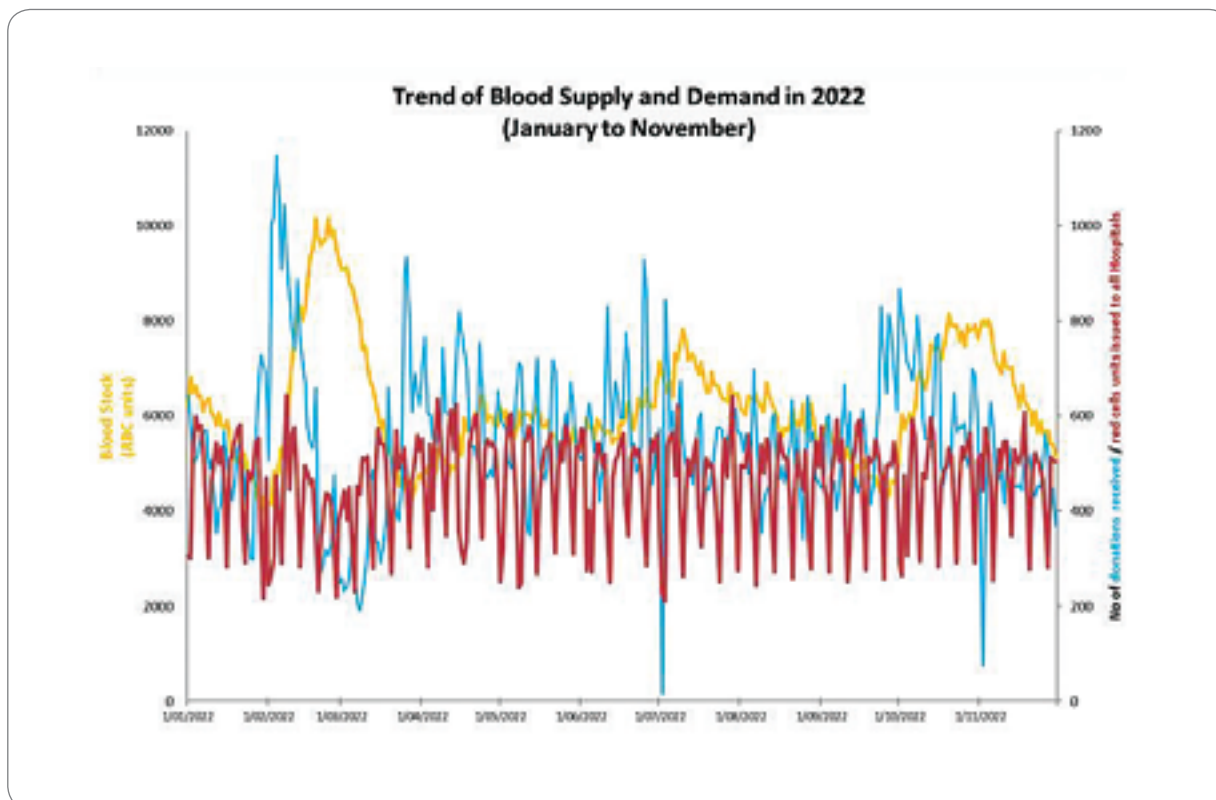
Robotic technology

Robotic technology was introduced at HKEH. Cleaning and delivery robots reduced the manual handling workload for staff and created a friendlier working environment.



Hong Kong Red Cross Blood Transfusion Service (BTS) - Sustainability of blood supply to meet demand in Hong Kong

In 2022, the Blood Transfusion Service (BTS) continued to face challenges due to COVID-19 pandemic, and blood collection was significantly affected, especially during the peak of the fifth wave in the first quarter of 2022. Although the demand for blood decreased, the BTS blood supply continued to fall to very low levels in March due to poor blood collection. An appeal press release and a series of promotional activities then boosted collection and stocks. For the remainder of the reporting period, the blood inventory fluctuated for a number of reasons, including adverse weather conditions during the summer months and an increase in local COVID-19 cases in the second half of the year. In order to maintain a stable blood supply to meet local demand, numerous publicity campaigns were planned throughout the year (some of which are listed below).



Various publicity and promotion activities

1. More than 110,000 thank you letters were sent to blood donors who donated in 2021 during the pandemic to support the blood supply in January and February 2022. Positive feedback was received.
2. Following the almost complete cessation of mobile drives due to the fifth wave, the BTS started to prepare two vehicles for outreach drives in different parts of the community. To enhance promotion, the BTS also liaised with stakeholders in the vicinity of the drive sites to support promotion.
3. As the number of confirmed cases in the fifth wave declined, mobile teams were deployed in some high-traffic shopping centres and the response was promising.
4. In collaboration with the blood services of Korea, Singapore and Thailand, a series of celebrations were planned for World Blood Donor Day on 14 June 2022 to thank donors for their continued support.
5. With the start of the new school year, most of the school drives were resumed. A promotional truck was planned for October 2022 to increase collection during the university blood drive tour. This promotion attracted more than 2,400 new donors in October 2022.



Kowloon East Cluster

Q&S Seminar – Patient Blood Management (PBM) in KEC

PBM has been a significant topic in HA in recent years. On 31 October 2022, the Kowloon East Cluster (KEC) held a seminar where the keynote speaker, Dr Eudora CHOW, KEC Blood Bank Representative in HA Central Committee on Transfusion Service, shared her insights on the three pillars of PBM. Representatives from four clinical departments were invited to share their good practices.

The seminar was attended by 270 KEC staff members who found the content informative and practical for their daily practice. The positive feedback from the staff was a testimony to the value of the seminar.



Patient Safety Walkround on Prevention of Inpatient Suicide in the United Christian Hospital (UCH)

Upon the update of HA guideline about provision of shower hose in non-assisted bath (i.e. annex 5d of “Guideline on Hospital Security Design Planning”) in June 2021, there were some discussions at KEC Q&S Subcommittee on Prevention of Inpatient Suicide and UCH Q&S Committee on reviewing if the current facility related provisions fulfilled the requirements of the updated guideline.



To identify potential suicidal risks and related mitigation measures in high-risk areas such as Psychiatry, Palliative, Geriatrics, and Oncology, as well as on the rooftop, a walkround was arranged in July 2022. The visiting team consisted of the CCE, Chairpersons of KEC Q&S Subcommittee on Prevention of Inpatient Suicide (i.e. SD(Q&S) and GM(AS)), GM(N), and representatives from the Facility Management team.



During the walkround, it was observed that both administrative and frontline staff had devoted significant efforts towards adopting measures to mitigate the risk of inpatient suicide. The visiting team suggested some improvement actions, which were promptly monitored and reported to KEC Q&S Subcommittee on Prevention of Inpatient Suicide.

Complaint Management: Constructive Handling of “Bombs” in TKOH

“Complaints” are inevitable in all service-providing organisations, including public hospitals. Inappropriate complaint management not only destroys the relationship between service users and healthcare workers but may also leave defects in healthcare services unrectified or further deteriorating, which may pose a threat to patient safety. Therefore, having a positive mindset towards complaint management and possessing appropriate skills for complaint handling are crucial. Effective complaint management can lead to CQI, which can significantly benefit the healthcare system and all service users in the long run.



TKOH Q&S Forum, titled “Complaint Management: Constructive Handling of ‘Bombs’” was held on 25th November 2022 in the TKOH Auditorium. The forum aimed to share techniques for handling difficult complainants and family meetings for serious complaints, as well as promoting a positive mindset towards complaint management among TKOH professional staff.

Warfarin Safety Campaign 2022 – TKOH Anticoagulation Pharmacist Team

HO PS&RM organized the Warfarin Safety Campaign, and TKOH Anticoagulation Pharmacist Team was awarded the first runner-up, as well as the “My Favourite Warfarin Idea”. The Anticoagulation Pharmacists presented a comprehensive warfarin journey, including prescribing and supplying warfarin with a standardized dosage pattern, enhancing the system for cross-checking INR and prescribed dosages, revamping system layouts to facilitate INR checking, promoting shared care models with Pharmacists, and integrating with HA Go for checking the latest regimen. By adopting this comprehensive approach, the Anticoagulation Pharmacist Team aims to safeguard patient safety, reduce prescription/transcription errors, and facilitate patients’ understanding and compliance with warfarin.



Practice Alignment in Careful Hand Feeding in the Haven of Hope Hospital (HHH)

There has been a risk of inappropriate feeding plans in HHH due to the lack of a systematic multidisciplinary assessment and inconsistent approach to decision-making regarding careful hand feeding. To address this issue, a multidisciplinary cross-specialty working group was formed, consisting of speech therapists, doctors, and nurses from the Geriatric, Respiratory, and Palliative Care teams. The working group conducted a review of the current situation in HHH and formulated a practice guideline for careful hand feeding that can be applied consistently across different wards and specialties. The Guideline for Comfort Feeding in HHH was formulated in July 2022, promulgated in a Multidisciplinary Seminar in August 2022, and piloted in September 2022. After the pilot trial, the guideline was revised and fully implemented in HHH in December 2022.



Collaborative Efforts in Minimizing Nosocomial COVID-19 Infection in HHH

Due to the current COVID-19 pandemic, any nosocomial outbreak can lead to significant morbidity. In 2022, collaborative efforts were made in HHH to enhance infection control measures and optimise the number of vaccinations for patients.

To minimise the risk of admitting undiagnosed infected patients, admission screening for patients from other hospitals and directly from the community was continuously implemented. A workflow for transferring patients with nosocomial infections from general wards to designated wards or airborne infection isolation room (AIIR) was put in place. A stringent visitation arrangement was implemented according to prevailing HA policy. Orientation and induction training provided by NSD reinforced PPE proficiency, and cardiopulmonary resuscitation (CPR) drills with emphasis on infection control were conducted for frontline doctors treating COVID-19 patients.

To enhance patient vaccination rates, a systematic mechanism to screen (at admission) and follow up (every two weeks) on patients without vaccination was established. A vaccination time calculator was designed to facilitate timely vaccination. An effective vaccination arrangement mechanism with collaboration between wards and pharmacy was put in place to facilitate patients receiving COVID-19 vaccine. With this concerted effort, a vaccination rate of over 90% was achieved in infirmity patients in HHH.



Kowloon West Cluster

KWC Orientation and Induction Programme for New Residents

On 26-27 July 2022, the Kowloon West Cluster (KWC) Orientation & Induction Programme for New Residents was held with the objectives of raising awareness among residents about common pitfalls and risks in clinical practices, as well as strengthening their skills in managing incidents at the beginning of their careers.

To enhance learner engagement and improve the learning experience, the programme was revamped in 2022, which included converting some conventional lectures to simulation trainings and video learning through immersive technology (360° video).

Simulation trainings were introduced with a focus on Surgical and Procedural Safety, as well as Transport of Critically-ill Patients & Resuscitation. Participants were able to relate the scenarios with real clinical situations and provide/receive immediate feedback.



The use of 360° video, together with the cardboard-based virtual reality headset, was also applied in the topic of Communication on Incident and Complaint. This allowed participants to immerse themselves in the scenarios and view them from the perspective of both the doctor and the patient/relative, enabling them to observe the effect of social cues and thus enhance their communication skills.

A total of 76 new residents attended the training sessions and provided positive feedback, particularly on the revamped programme format.



KWC Simulation Training Programmes for Infection Control

Since the third quarter of 2022, KWC Simulation Training Centre (STC) has been reinstituted, offering not only the current Crew Resource Management (CRM) training curriculum but also a variety of clinical training courses to enhance professional development and service quality and safety issues. The focus has been on conducting Infection Control (IC) and Infectious Disease (ID) trainings for emerging disease preparedness.

In 2022, a total of nine simulation training sessions on IC and ID management were conducted, with positive feedback on the creation of a fully immersive environment and scenarios. Participants also found the debriefing sessions of the simulation training inspiring and practical.



KWC STC is committed to provide quality simulation training to colleagues. The centre plans to develop skill-based and scenario-based simulation training courses and drills for clinical departments and specialties. The centre is also committed to develop simulation training programmes using innovative technology and new teaching modality to enhance participants' learning experience.

Q&S Forum

On 28 September 2022, KWC Q&S Forum was successfully held in hybrid mode under the theme *“Transforming the Future: Smart Hospital Management and New Training Modalities”*.

Mr CHEUNG Hok Leung, Nursing Manager (CND), QEH, and Dr WONG Wai Tat, Clinical Professional Consultant and Associate Professor of Practice of Department of Anaesthesia and Intensive Care, The Chinese University of Hong Kong, were invited to share their valuable experiences on establishing a hospital command centre and novel teaching modalities for the new generation of clinicians respectively.

To promote continuous quality improvement in our hospitals, KWC colleagues were encouraged to share their quality improvement projects. Out of 67 abstracts, six and 17 abstracts were selected for oral and poster presentations, respectively.

Besides, a Q&S Forum was also conducted in hybrid mode at Caritas Medical Centre on 31 October 2022 to inspire and engage staff to cultivate a safety culture and provide quality service to patients. A total of 34 posters were received from various clinical teams and allied health departments. Six teams were selected to participate in the oral presentation.

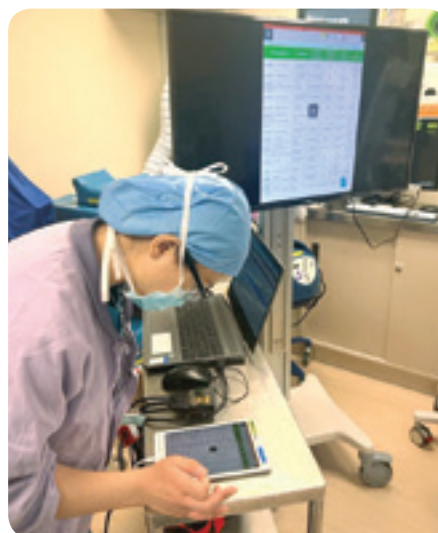


KWC eConsent Implementation

Corporate-wide electronic consent (eConsent) system is being deployed to Cluster Hospitals to improve the standards and completeness of clinical documentation and facilitate communication between clinicians and patients.

In line with target of implementing eConsent in operative procedures by 2023 Q1, KWC started implementing the eConsent system in 1Q 2022. CMC started the implementation as the pilot hospital, followed by the rest of KWC hospitals from 4Q 2022 onwards.

To ensure smooth implementation, the eConsent system was introduced to individual specialties by phases. A series of staff engagement activities, e.g. site visits to pilot hospitals in HA and KWC, staff forums, operation drills and specialty-tailored roadshows were conducted. It helped clinical and nursing staff to familiarize with the operation of eConsent in both iPad and CMS platforms. A steadily increasing trend in the utilization of eConsent forms in KWC hospitals was observed. Favourable feedback from frontline colleagues was received.



New Territories East Cluster

Implementation of Smart Panel and e-Vital system in NTEC

Following the great success of the pilot of the eVital Project in 2021, the system was rolled out in a total of 54 wards in the New Territories East Cluster (NTEC) in 2022. The system will be further rolled out in all acute wards in 2023 and in wards at the Shatin Hospital (SH), Shatin Cheshire Home (SCH), Bradbury Hospice (BBH), and Tai Po Hospital (TPH) in 2024/25. The implementation of the e-Vital system has paved the way for the implementation of Clinical Command Centre.



Implementation of eConsent in NTEC

A new era of consenting began with the piloting of eConsent in elective operative surgical procedures at the Prince of Wales Hospital (PWH), Alice Ho Miu Ling Nethersole Hospital (AHNH), and North District Hospital (NDH). Production drills, staff briefings, and trainings were held, and the response from frontline staff was overwhelming. As a result, the eConsent system will be extended to all surgical specialties, TPH/SH Psychiatry electroconvulsive therapy (ECT) procedures, and medical specialties in 2023-24.



Convalescent/Rehabilitation (CR) Bed Booking System in AHNH/TPH

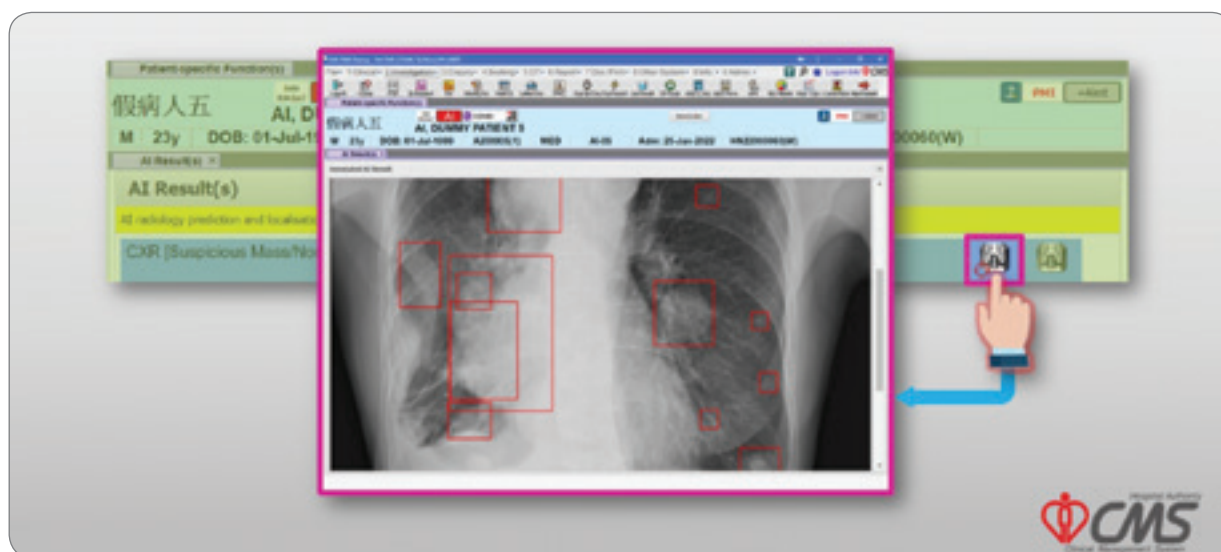
Since November 2021, CR bed booking system has been implemented in AHNH and TPH with the aim of improving the efficiency of patient transfer between the two hospitals. A WISER project team was formed to streamline the bed booking workflow, and the results were impressive. The system has reduced transfer waiting time by 59%, which is equivalent to 53 minutes, and has saved 190 minutes of manhour every day. Furthermore, the implementation of the system has saved over 36,000 pieces of paper.



Investigation Safety

Pilot of Chest X-ray Artificial Intelligence (CXR AI)

Following the successful roll out of CXR AI in three departments of Accident and Emergency in NTEC, and with the introduction of the localization function in October 2022, NTEC FM, PWH Medicine & Therapeutics (M&T), and Neurosurgery (NS) have joined the pilot of CXR AI on 16 December 2022. The AI system is expected to assist doctors in identifying lung lesions and nasogastric (NG) tube positions.



Highlight Abnormal Serum beta-hydroxybutyrate and Serum Protein Electrophoresis (SPE) in Laboratory Report

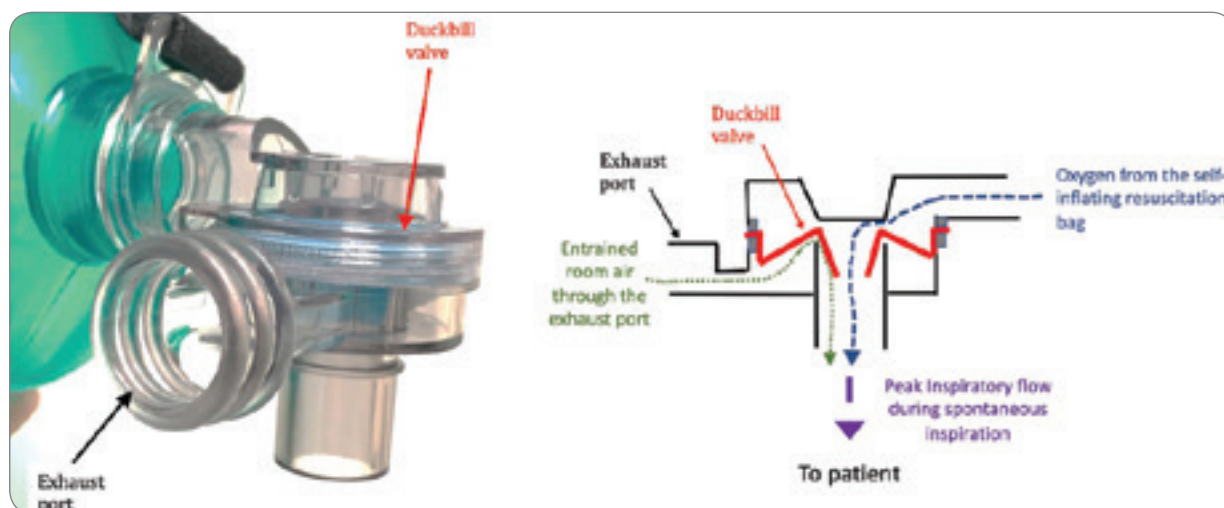
The long turnaround time for serum protein electrophoresis (SPE) results, inadequate handover for SPE results, and mixed knowledge gaps regarding SPE and abnormal plasma beta-hydroxybutyrate for indicative of ketoacidosis have caused delayed management. To address these issues, a better alert mechanism and flagging mechanism have been proposed. Both laboratory report enhancement proposals have been endorsed by HAHO.

C				
Collect Date :	25/11/22	26/11/22	26/11/22	
Collect Time :	13:29	13:29	09:20	
Arrival Date :	25/11/22	26/11/22	26/11/22	
Arrival Time :	13:29	14:04	09:35	
Request No. :	00000000	00000000	00000000	
Agency :	000000	000000	000000	
Plasma				
Beta-hydroxybutyrate	0.4 *	0.29 *	0.27	++ 0.38
Reference Interval: Correct				
Beta-hydroxybutyrate				
Reference Interval: provided is for fasting subjects.				

Suggestion: Highlight Paraprotein +ve with an asterisk (with flagging)									
SERUM PROTEIN	IS								
Total Protein	95 *	91 *	81 *	84 *	85 *	66 - 80			9/
Albumin	40	42	43	44	45	30 - 48			9/
Paraprotein	Positive*	Positive*	Negative	Positive*	Positive*				
Immunoprecipitation	YES	YES	NO	YES	YES				
Serum Immunofixation	DONE	NOT DONE	DONE	DONE	DONE				
Paraprotein Typing IgM Lambda									
IgM Lambda									
IgG Lambda									

Resuscitation Safety: Self-Inflating Resuscitation Bags (SIRB) Project

The Disposable SIRB, a Bag Valve Mask (BVM) commonly used in airway management/ventilation, is an essential tool. The current stocked Med-Rescuer Disposable BVM Resuscitator 4,000 has been reported to have unreliable performance in delivering oxygen concentration to patients in respiratory distress due to room air entrainment, which compromises oxygen delivery. This is particularly concerning when resuscitating patients with hypoxia and/or during preoxygenation. In this connection, staff awareness has been raised, and they have been educated on risk mitigation measures, such as attaching a positive end-expiratory pressure (PEEP) valve or replacing the SIRB with an expiratory valve (e.g. Laerdal Bag II).

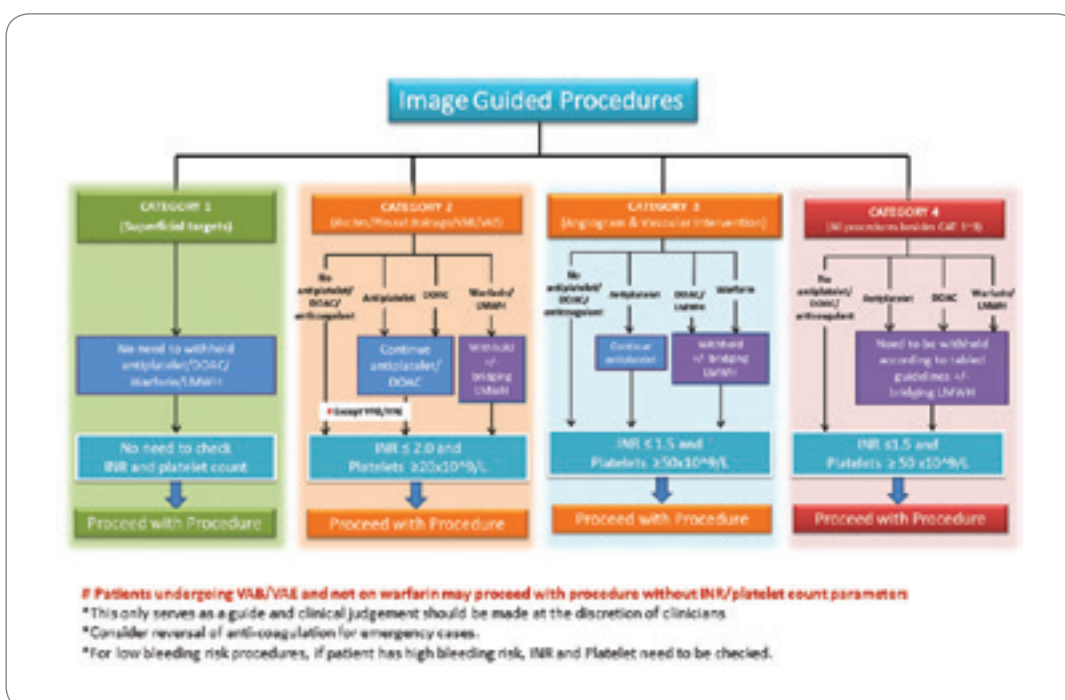


Procedural Safety: Risk Stratification and Standardized Management of Patients undergoing Interventional Radiological (IR) Procedures with Thrombotic and Bleeding risks

To minimise untoward complications in patients who are receiving antiplatelet and/or anticoagulation therapy, the Department of Imaging and Interventional Radiology at PWH, AHNH, and NDH have categorized IR procedures into four different groups based on the risk of bleeding. They have also established a standardized algorithm for the preparation and management of patients before and after elective IR procedures. To facilitate the booking of procedures, NTEC CMS Generic Clinical Request System (GCRS) template has been modified to allow requesting clinicians to select the appropriate category of IR procedure from the four available options.

Category	INR/Platelet	Stop Antiplatelet	Stop DOAC/LMWH	Stop Warfarin
1 (Superficial target)	X	X	X	X
2 (Ascites/pleural drainage/VAB/VAE)	$\leq 2.0/\geq 20$	X	X	YES
3 (Angio/Vascular intervention)	$\leq 1.5/\geq 50$	X	YES	YES
4 (Others)	$\leq 1.5/\geq 50$	YES	YES	YES

Stratification of image guided procedural bleeding risk

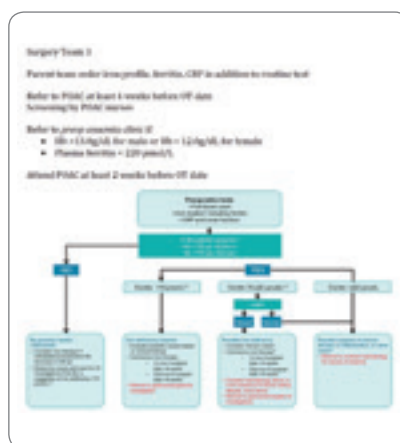


Algorithm for management of IR procedures according to bleeding risk

https://ntecapp25.home/iHospR/documents/iHosp/PWH/DROI/637510131413244ANG005_New_Hospital_Recommendations_for_Image-guided_Procedures_Performed_by_Radiologist_in_Patients_with_Thrombotic_and_Bleeding_Risks.pdf

Patient Blood Management and Transfusion safety: Iron Therapy

The Cluster Patient Blood Management and Transfusion Subcommittee has continued to promote and assist surgeons and anaesthetists in developing protocols for the use of iron therapy, either intravenously or orally, to treat patients with iron deficiency anaemia. The aim is to minimize the need for peri-operative blood transfusions. The strategies implemented have resulted in a significant reduction of red cells issued to patients with colectomy, acute gastrointestinal (GI) bleeding, and renal failure by 67%, 31%, and 30%, respectively. The outcomes have been very encouraging and significant.



Physical Restraint Free Initiative – Tailor-made hand mitts

The NDH Fall Prevention Subcommittee has designed a tailor-made hand mitt to ensure successful physical restraint-free environments in clinical areas and reduce patient injuries. The hand mitts were piloted in 2022 Q3 and have proven to be effective in preventing patients from engaging in dangerous and self-harmful acts. Additionally, they allow for a range of movement for the patient and easy observation of the patient's condition by staff.



Medication Safety Forum: Smart Solution in Medication Safety

On 7 September 2022, the AHNH & TPH Medication Safety Forum titled “*Smart Solution in Medication Safety*” was successfully held at AHNH. The forum included an informative presentation by Dr Joyce CHAN from HOIT&HI who shared an update on HA IT system, which serves to protect our colleagues and patients from medication incidents.



Staff Training, Education, Learning and Sharing

NTEC Incident Management Workshop

NTEC Incident Management Workshop was revamped and held on 5 July 2022. The workshop focused on principles in incident management, including open disclosure, which were shared through a scenario-based approach. Participants engaged in a group exercise that focused on reporting culture, prevention of recurrence, and system change. Additionally, psychological support for staff was introduced to ensure that all attendees received necessary support.



NTEC Root Cause Analysis (RCA) Workshop

On 16 September 2022, the RCA Workshop was successfully conducted, aiming to enhance participants' skills in working out the sequence of events and cause and effect diagrams, as well as developing recommendations and action plans through simulation training.



The 7th NTEC Lean Leader Course

NTEC Q&S Training and Research Subcommittee successfully organized the 7th NTEC Lean Leader Course, which was completed fruitfully. During the Final Project Presentation Day on 23 November 2022, 8 WISER project teams shared their Lean Projects. Feedback received indicated that the projects were very valuable and fruitful.



2-day courses: FMEA and Data Analysis for Problem Solving and Decision Making for future Q&S leaders

On 30 July, 6 August, 15 and 22 October 2022, two outsourced 2-day training courses were conducted. These courses were “The Failure Mode and Effect Analysis (FMEA) for Healthcare” and “Data Analysis for Problem Solving and Decision Making - The Foundation for a Smart Hospital”. A total of 50 future leaders, nominated by heads of department, participated in the courses. Feedback received indicated that the courses were very useful and participants looked forward to ongoing training opportunities.



New Territories West Cluster

Promoted Patient Safety Culture via Q&S Quick Post, Patient Safety Mascot and Staff Appreciation for Stopping Incident Occurrence

To promote a patient safety culture and raise awareness among the New Territories West Cluster (NTWC) staff, especially the younger generation, NTWC Q&S Division launched a patient safety culture campaign in 2022 Q3.

The Q&S Quick Post was established in September 2022. Led and coordinated by NTWC Q&S Division, the Q&S Quick Post is an extension of the existing NTWC Safe Practice Bulletins (安•心). It utilises a mobile instant messaging app to promote quick messages on patient safety topics and upcoming events. Each Quick Post contains colourful and eye-catching photos and text to attract staff to read the key messages.

To better engage staff in practicing and promoting patient safety, NTWC Q&S Division designed and created a mascot. The mascot is a light bulb that is cheerful, energetic, and always has bright



💡 保温壶出没注意 💡

天氣轉涼，加上感冒探訪安排，多啖親屬會帶愛心湯水💖俾病人。唔病房見到病人有用保温壶嘅話，不防留意以下幾點：

👤 住院病人身體較虛弱，同事可協助



💡 保障病人私隱 – Fax篇 💡

Fax 載有病人資料嘅文件需小心處理，以防個人資料外洩。大家可以留意以下幾點要點：

1. Fax 前對多次核對✅，有敏感資料文件可由2位同事核對才傳送更穩妥



💡 確認病人身份 – Investigation Report篇 💡

化驗報告材料報給病人治療時重要，如果報錯病人身份可能會導致診斷錯誤可以吓大件事!

記住以下要點，可以避免同Investigation report有關嘅事件發生！
1. 報給病人全名同ID/1488，淨係報姓就唔夠正確咁! ❌
2. 同事都有機會叫錯，記住報report係病人身份時要對，確保報對人身份就OK!



💡 保障病人私隱 – 查閱病人資料篇 💡

CMS有大量病人資料資料，各地醫院都設有HKA Access to Patient Data(查閱病人資料系統)，一齊留意以下要點！

1. 查閱病人資料大原則：Patient Under Care (只准查閱自己照顧的病人) 同 Organizational Need to know (唔係所有需要查閱病人資料)
2. 唔好八卦 查閱同事，病人或同事嘅健康資料(唔係咁容易!)
3. 唔好八卦 查閱同事，病人或同事嘅健康資料(唔係咁容易!)

ideas for promoting patient safety practices and preventing incidents. The mascot is used in Q&S Quick Post, patient safety posters, and promotional products.

The promotion of the Quick Post began in August 2022, inviting NTWC staff to join the Quick Post broadcast group to receive important messages. As of 18 November 2022, 660 staff members had joined the Quick Post broadcast group, and a total of 16 issues had been published. Some staff members provided feedback on improving patient safety after receiving the Quick Post.

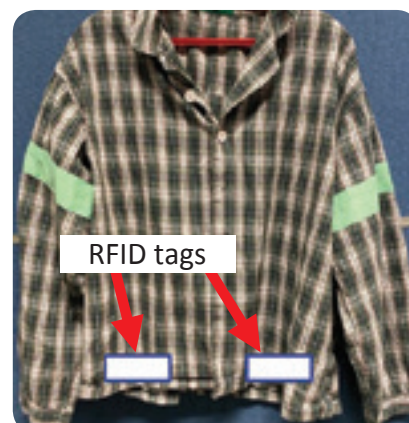


In addition, NTWC Q&S Division presented certificates of appreciation to clinical staff who successfully prevented medication and patient identification incidents with potential patient harm, acknowledging their efforts to safeguard patient safety since August 2022.

Introduced Patient Uniform with Anti-wandering Radiofrequency Identification (RFID) Tagging System to Prevent High Missing Risk Patients

In July 2022, NTWC Workgroup on Managing High Risk Missing Patients introduced and piloted a new RFID anti-wandering system in an acute geriatric ward at Tuen Mun Hospital (TMH) to reduce the occurrence and risk of patients going missing, particularly those identified as high risk. The system comprises RFID tags for sending signals, RFID antennas for receiving RFID signals to activate the system's alarm, and a computer for monitoring the alarm. Patients with high risk of missing will be provided with patient uniforms or green vests that had been sewn with the Anti-wandering RFID tags.

When these patients walk near the antennas near the ward exit, an alarm will be triggered to alert ward staff, and the entrance door will be automatically locked. These patients will not be able to leave the ward by themselves at that moment, thereby reducing the risk of going missing. Following positive feedback from the pilot ward, NTWC Workgroup on Managing High Risk Missing Patients plans to explore more preventive measures and newer anti-wandering technologies in other wards in the future.



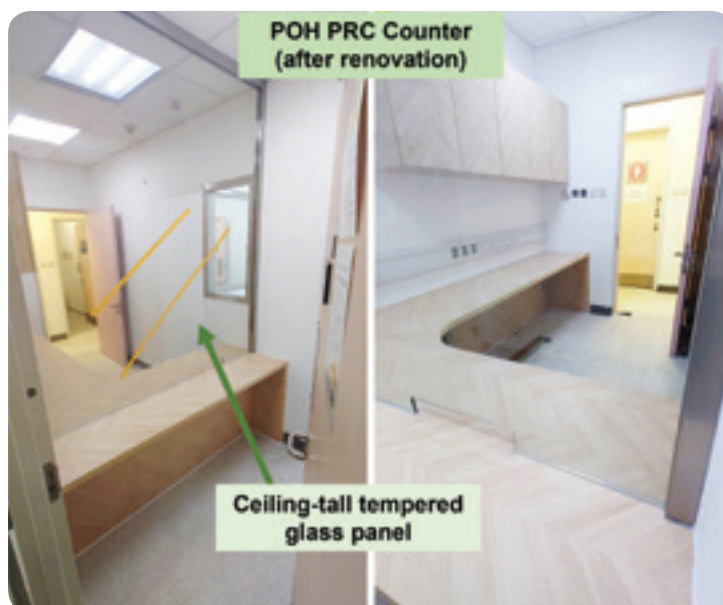
Enhanced the Access of Patient Relations and Engagement Services, and Support Difficult Patient Discharge Process with Team Efforts



In response to the latest HA Patient Experience Survey, which highlighted the need to enhance public access to feedback and appreciation, the Patient Relations Officers (PRO) Team have been newly designed the appreciation and feedback posters, drop-in box for feedback as well as appreciation cards. Additionally, an electronic appreciation/feedback inbox has been developed to allow patients and visitors by scanning a quick response (QR) code with mobile phone and complete an online form to provide their feedback and appreciation.



In the risk assessment of workplace violence in the Patient Relations Centre (PRC) of Pok Oi Hospital (POH), a renovation plan for the POH PRC was supported by the POH Capital Works and Space Utilisation Committee in May 2021. The renovation was initiated in June 2022 and completed by November 2022. During the interim period, the PRC was relocated to a temporary location to provide daily patient relations services. The renovated PRC features a ceiling-tall tempered glass vision panel in the counter area to enhance the safety of the Patient Relations Assistant, as well as a new mini-conference room to facilitate meetings with patients and their relatives.



To facilitate a smoother discharge process for patients who have difficulties in discharge, various partners in NTWC have come together as a “DC Easy” (Discharge Easy) team. These measures include issuing discharge notices to relatives, referring patients in need to medical social services, and formulating discharge plans. The “DC Easy” team was recognised for their work in supporting difficult discharges and received NTWC Outstanding Staff Team (Merit) Award in 2022.

2022年度新界西醫院聯網 優異團隊		
得獎團隊	隊長	提名人
新界西醫院聯網 質素及安全部 出院易	新界西醫院聯網 聯網統籌專員（質素及安全）*/ 天水圍醫院 急症科 副顧問醫生 黃俊賢醫生	博愛醫院 副行政總監 / 新界西醫院聯網 副服務總監（質素及安全）/ 屯門醫院/博愛醫院/天水圍醫院 急症科 部門主管 劉柱良醫生

Revamped the Blood Taking Procedures in Isolation Settings with UPI Devices

Upon reviewing incidents of patient misidentification during blood sampling in isolation settings, it was observed that the usual workflow of wheeling the blood-taking trolley with a Unique Patient Identification (UPI) scanner and label printer to the bedside was interrupted. This was due to the UPI label printer being located outside the isolation room/cubicle, which required staff to walk back and forth to prepare specimen labels. This practice posed a high risk of patient misidentification and defeated the purpose of performing the entire blood sampling procedure at the bedside.



To address this issue, representatives from the Q&S Division, NSD, ICT, phlebotomists and clinical wards conducted visits to three isolation/surveillance wards in TMH, POH and TSWH in May and June 2022. The purpose of these visits was to review the existing blood sampling workflow in isolation settings and explore the feasibility of bringing the UPI devices (scanner and label printer) and job sheet to the patient's bedside. After discussions among stakeholders, two workflows were agreed upon – “pair-up phlebotomists” and “bring all UPI devices to bedside”. These workflows were presented at the Cluster Q&S Committee meeting in June 2022 and were subsequently implemented in all isolation settings. To facilitate the implementation of the new workflows, training videos were produced in August 2022, and additional UPI devices were provided to wards with isolation facilities.



Smart Care Initiatives

To align with the HA's vision of transforming its services towards "Smart Care", NTWC Q&S Division supported the development and implementation of several smart hospital initiatives in NTWC.

Electronic Consent (eConsent) System

The eConsent system is designed to replace existing printed informed consent forms with electronic versions. Following its successful implementation at TSWH in 2021, the eConsent system was extended to POH. Workgroup meetings were held as a communication platform to introduce the eConsent system to departments, gather feedback, and update on the implementation progress, to facilitate the implementation process. Frontline staff were provided with training sessions before the implementation. The eConsent system was successfully implemented at POH, except for emergency operations, in October 2022. To further roll out the eConsent system to TMH, a kick-off preparation meeting was conducted in October 2022. It is anticipated that the eConsent system will commence at TMH in February 2023.



Generic Clinical Reporting System – Plus (GCRS Plus) Programme

The GCRS Plus programme is an HA-wide initiative aimed at enhancing the service quality of in-patient blood taking mechanisms. The GCRS Plus system utilises an iPad with a built-in blood taking software application for data retrieval and documentation, replacing the UPI scanner and printed job sheet.



In NTWC, TSWH was selected as the pilot site for the implementation of the GCRS Plus system. A GCRS Plus Working Group was formed in September 2021, consisting of representatives from Q&S, information technology, clinical pathology, clinical departments, and the phlebotomy unit. The Working Group also invited members from HOIT&HI Division. The group discussed the action plan, logistics, workflow, and contingency plan for the implementation of the GCRS Plus system. NSD coordinated training and production drills. The first phase of implementation was conducted on 6 July 2022 in two medical wards, the operating theatres, the Electro-diagnostic Unit, and the Radiology Department. The system was fully implemented in all other units of TSWH on 20 July 2022.

Artificial Intelligence and Big Data Analytics

In light of the growing application of AI in clinical services, an NTWC AI and Big Data Analytic Workgroup was established in February 2022 to support relevant developments and implementations in the Cluster. The Workgroup aimed to identify and advise potential AI and data analytics initiatives that could improve patient outcomes or operational efficiency. It also liaised with the AI team of the HAHO in developing data analytics and AI models in the Cluster. Two Workgroup meetings were held in February and May 2022, respectively. In 2022, several AI projects were carried out in NTWC, including commercial AI solutions for CXR reading in the Radiology Department, HA AI for CXR in A&E, M&G, and FM and Primary Health Care Departments. Additionally, RAPID AI was used for Computed Tomography images in AED and AI for hip fractures in A&E and O&T Departments.

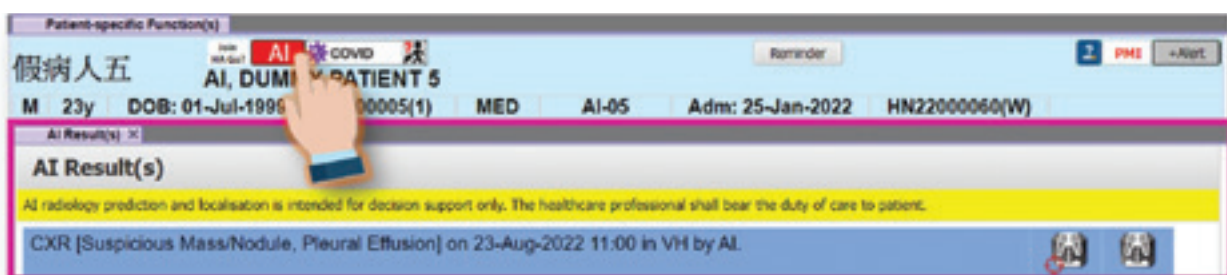
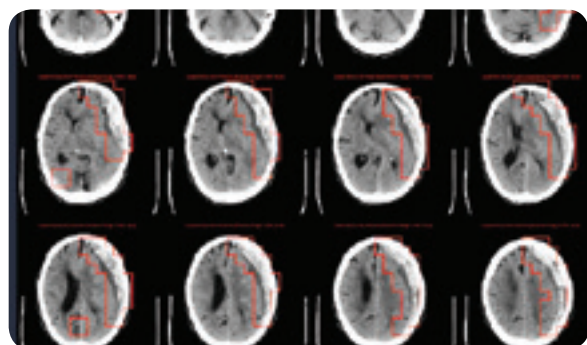
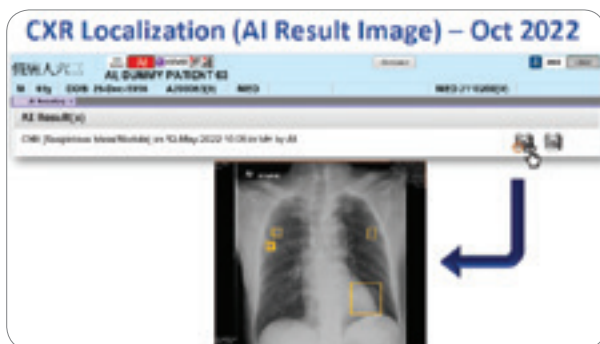
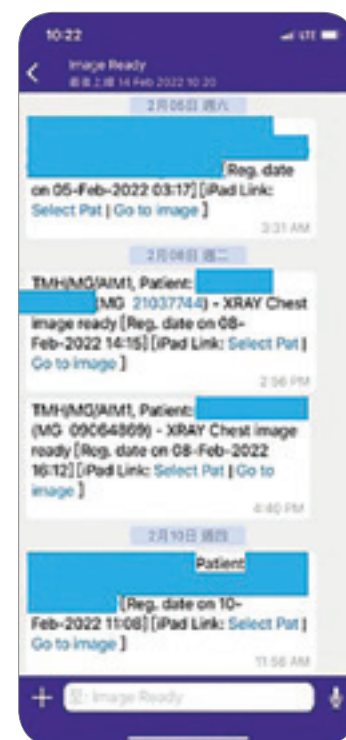


Image Notification for Plain X-ray and e-Request for Reporting

To ensure the timely and safe handling of radiological results, NTWC followed HA's direction in rolling out an enhancement programme on plain x-ray image notification and e-request for reporting for outpatient services. An NTWC Workgroup on Plain X-ray Image Notification and e-Request was formed in June 2022, coordinated by NTWC Q&S Division. The Workgroup aimed to monitor the work progress and disseminate information to clinical departments. In 2022 Q3, the "notify me" function for images in CMS was launched in outpatient settings across NTWC. Additionally, the request for radiologist's image reports was changed from upon imaging request to after images were viewed by clinicians. With the introduction of AI CXR in NTWC, the Workgroup will continue to collaborate with clinical departments to improve the workflow and monitor the use of these systems.



Dashboard User Interface (UI) Design for Clinical Internet of Medical Things and Mobile Integration enabling Safe and Efficient Patient-monitoring in Smart-ward (CIMISEPS)

To enable clinical staff to monitor patient vital signs and treatment more efficiently, the CIMISEPS programme was developed. This programme links patient device data to a television display and a mobile app. The Q&S Division was invited to join the CIMISEPS dashboard UI design working group to provide human factors and usability advice, which aimed to improve user satisfaction and minimise use errors on the dashboard. Meetings were held with clinical departments and the UI development vendor to discuss the development process. The UI development vendor created a dashboard prototype, which was trialed in a medical ward at TSWH since December 2022. The goal of this prototype is to facilitate the monitoring of patient vital signs and treatment by clinical staff.



E-bed Panels for Digitalising Bedside Communication

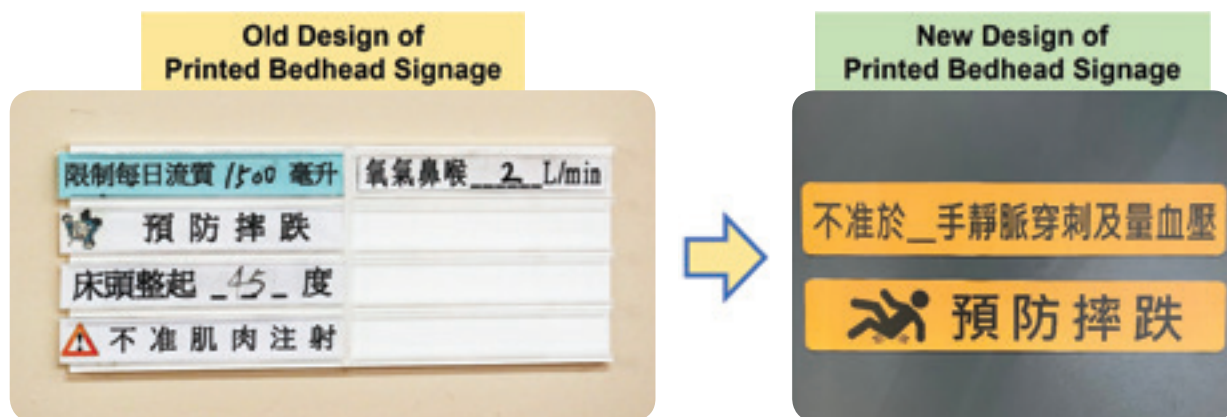
The use of e-bed panels is an HA-wide project aimed at replacing traditional printed bedhead signage with electronic displays to provide clear patient care messages with short and precise descriptions. In 2021, the Cluster Q&S Committee reviewed the installation and mounting method of e-bed panels (i.e. an iPad on a holder) from a patient safety perspective and suggested that the e-bed panels should be installed using the wall-mounted method. Following this advice, the Q&S Division was invited to provide patient safety comments on the installation of e-bed panels, including their wall-mounting devices and accessories (e.g. iPad charging cables and power sockets). Visits were conducted by the Q&S Division, NSD, Facilities Management Department, respective clinical departments, and the vendor of wall-mounting devices upon the installation of e-bed panels in each ward. The installation of e-bed panels was completed in POH and TSWH in 2022 Q4. A kick-off meeting for the installation of e-bed panels in TMH was started in 2022 Q3, and the installation is set to begin in 2023.

Standardisation of Bed head signages

For wards where e-bed panels have not yet been installed, printed bedhead signage is still used. This signage is also necessary for contingency purposes in case of e-bed panel breakdowns. In 2021 Q4, the layout design and content of the printed bedhead signage were reviewed by NTWC Q&S Division and NSD. The goal was to align the layout and content of the printed signage with those used on e-bed panels.



The new design features standardized font types, color tones aligned with those on e-bed panels, limited use of ambiguous icons / images, enhanced color contrast to improve visibility, and more precise wording on the signage. The suggestions were discussed with Department Operations Managers, ward managers, and allied health departments. Comments were also sought from concerned committees, including the Falls and Restraint Management Committee and Medication Safety Committee. The revised printed bedhead signage was produced and distributed to wards in April 2022.



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