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Working towards Transfusion-Free Total Knee Replacement Surgery through Patient Blood Management Programme

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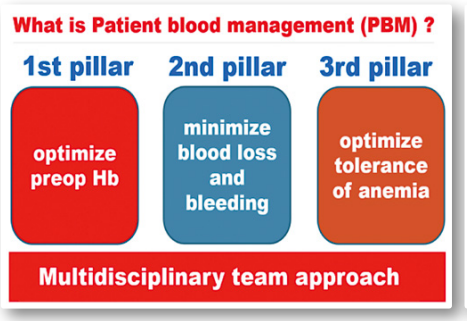
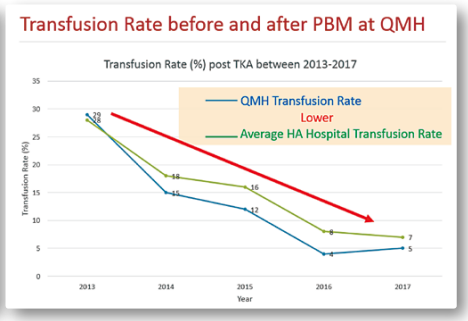
Recurrent blood shortage and transfusion related risks raised the concern of proper blood usage. Patient Blood Management (PBM) programme is encouraged worldwide and it involves the use of multidisciplinary, multimodal, individualized strategies to minimize transfusion with the ultimate goal of improving patient outcomes.

Queen Mary Hospital (QMH) is one of the pioneers in Hong Kong involving these strategies. PBM was introduced with the aim of minimizing perioperative blood transfusion in joint replacement surgery, which could potentially increase the patient's risk of surgical site infection. Multidisciplinary team approach was applied with the collaboration of surgeons, anaesthesiologists and haematologists. The measures included preoperative anaemia identification and optimization, reducing intraoperative blood loss by the use of tranexamic acid, restrictive transfusion protocol and single unit transfusion policy.





In This Issue:

Anaemia is associated with increased risks of postoperative infectious complications, prolonged hospitalization, and allogeneic transfusion. In 2017, we identified 10% of patients were anaemic before Total Knee Arthroplasty (TKA) according to our preoperative anaemia protocol. They were referred to haematologist in our hospital for the assessment and optimization before surgery.

With the PBM programme, perioperative transfusion rate in TKA was reduced from 29% in 2013 to 5% in 2017, while QMH has a lower transfusion rate in TKA when compared to the average transfusion rate in HA hospitals. The successful results demonstrated the improved patient safety and outcomes and it is an optimal management to handle blood shortage and adjust resources allocation in hospitals.

Editorial Comments

Patient Blood Management (PBM) is to optimise the management of patient and transfusion of blood products for quality and effective patient care. QMH's experience sharing on the PBM programme for total knee replacement surgery is encouraging. It not only vividly demonstrates how PBM works for the good of patients and alleviates the economic and operational pressures, but also the importance of multidisciplinary collaboration, engagement and support of clusters to promulgate and implement PBM initiatives.

Dr Linda YU,

Chief Manager (Clinical Effectiveness & Technology Management), HAHO

Enhanced Breast Cancer Postoperative Discharge Programme

*By **Dr Sharon Wing Wai CHAN**, Clinical Director, Kowloon East Cluster Breast Centre, Consultant, Department of Surgery, United Christian Hospital*

In Kowloon East Cluster Breast Centre of United Christian Hospital, a clinical pathway for breast cancer operation has been established since 2013, aiming to shorten hospital stay by multimodal perioperative care. However, there is still an unmet need in the transition from postoperative care in hospital to home setting, which leads to an increasing trend of Accident & Emergency Department attendance and unplanned readmission. To bridge the gap, the Enhanced Breast Cancer Postoperative Discharge Programme was developed in 2016.

This Programme aims to make patient discharge journey **Safe and Seamless** through our ABCDE approach.

1. **Accessible Back up** support
2. **Coordinated** discharge planning and post discharge management
3. **Delegation** of wound and drain management to nurses
4. **Empowerment** of patient self-care techniques

This includes the **4T** services:

1. Clear clinical guideline to **Triage patients** to be managed in home-environment, ambulatory or hospital setting.
2. **Training workshop** to ward nurse, community nurse and breast nurse on wound and drain management.
3. Patient education talks and reminder cards on **home care Techniques**.
4. **Telephone service** to patient by community nurse and **telephone hotline** for back up support to patient, community nurse, ward nurse and breast nurse.

After set up of the programme, we are able to reduce unplanned readmission by 66%, AED attendance by 55% and hospital length of stay by 50%. Patient and staff satisfaction including community nurse, ward nurse, breast nurse and surgeons are all increased because of coordinated and streamlined patient care[1].

Readily **Accessible Back up support** from surgical team

Triaging patient using Clinical guideline uploaded to electronic device for easy reference during home visit

Training workshops on wound and drain management

Telephone service to patient during weekends and public holidays by community nurse

[1] Best Oral Presentation, HA Convention 2018
Enhanced Breast Cancer Postoperative Discharge Program: reducing unplanned readmission and increasing staff and patient satisfaction

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Editorial Comments

Effective engagement, training and empowerment of all stakeholders are the key to success in this discharge programme. This is amply reflected in the impressive reduction in unplanned readmission, AED attendance and hospital length of stay. Patients' as well as staff's satisfaction have justifiably increased too!

Hon. Assoc. Prof. William C M CHUI,
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Launch of New Smartphone Mobile App for Diabetes Patients with Self-monitoring of Blood Glucose

*By **Dr Wai Sheung WONG**, Associate Consultant, Department of Medicine, North District Hospital*

Given an aging population in Hong Kong, our health care system has made it a priority task to prevent and treat chronic illness among the people. Diabetes mellitus, one of the commonest chronic diseases, not surprisingly, poses a significant challenge to our health care system. To tackle it, patient's engagement and the ability of self-care are the critical elements of success.

Mobile phone has become a necessity for everyone in this modern electronic era. It is not only an effective tool for information delivery but also be utilized to close the communication loop. Besides, patients can always carry their health records including self-monitoring of blood glucose (SMBG) record during follow up.

In collaboration with Information technology (IT) department of New Territories East Cluster (NTEC), a mobile app named "DM Care" was designed for the diabetic patient in 2017. It was composed of an electronic SMBG record, reminder and electronic version of diabetes information leaflet. Using digital transformation, paperless clinical service can be further implemented. Besides, these readily available information and user-friendly functions can support the patient anytime and anywhere to manage their chronic illness.

DM Care was launched and piloted in 2017 at the Medical Outpatient Clinic (MOPD) and Family Medicine Clinic (FMC) in NTEC. It was well recognized and appreciated by our diabetes patients and carers. More than 30000 cumulative downloads were recorded, and more than 90% responder offered positive comment. Backing with the support from our patients, it is deeply convinced that "DM Care" mobile app has an enormous potential for future development to become a new platform for patient engagement.

Editorial Comments

Patient empowerment is important in patient-centered healthcare. By using healthcare apps, chronic disease patients can keep track of their own health as well as connect with their healthcare providers regarding any concerns. It helps to promote autonomous self-regulation and treatment compliance, so that the potential of health and wellness can be maximized.

Dr Joanna PANG,
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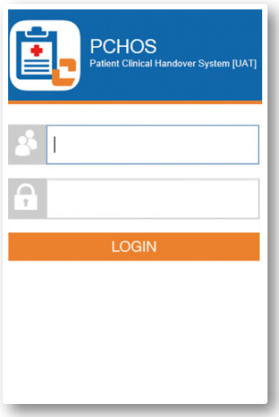
CLUSTER SHARING

Kowloon West Cluster

A Comprehensive Clinical Handover Ensures Correct Patient Information Transfer and Continuity of Care

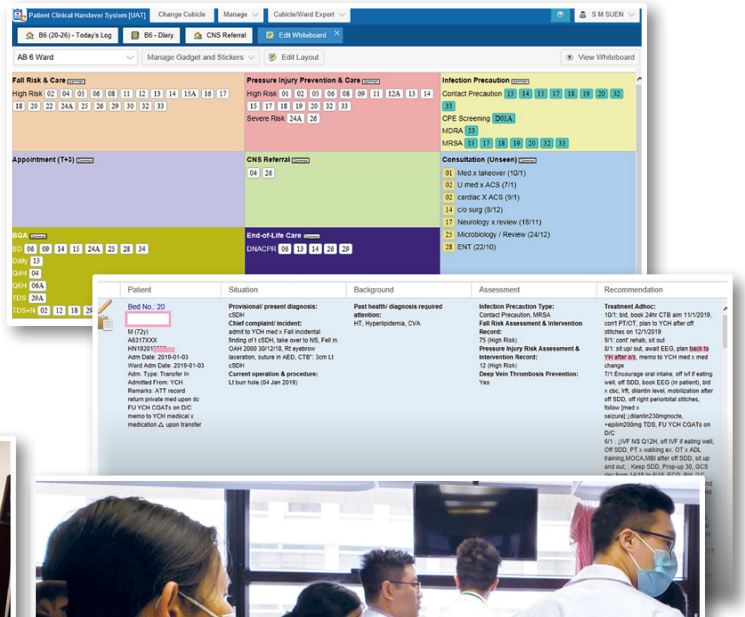
*By **Ms S M SUEN**, Department Operations Manager(Neurosurgery & Integrated Care Centre); **Ms Candic TANG**, Department Operations Manager (Medicine & Geriatrics) ; Members of Patient Care Process Audit Workgroup; Information Technology Department, Princess Margaret Hospital*



Clinical handover is crucial and integral in patient care management to ensure continuity of care. Princess Margaret Hospital has launched a new electronic platform Patient Clinical Handover System (PCHOS) to facilitate the transfer of information. SBAR (Situation, Background, Assessment, and Recommendation) format was adopted in the system to facilitate effective communication among nurses with standardized template. This system allows individualization of patient care plan for integrated care. Nurses could make use of the saved information for clinical handover, care planning and utilize eWhiteboard to organize daily patient activities. Patient information could also be shared with Community Nurses in the system for care coordination upon patient discharge.

Human errors during copying and information transferal were largely diminished after implementation of the system. All patient care was coordinated throughout the whole patient journey from admission to discharge in a one-stop system.

The program was piloted in Neurosurgery and Medicine & Geriatrics Department in Nov 2017 and was then rolled out to other departments. Its flexibility was well accepted while the program was implemented in psychiatric setting of Kwai Chung Hospital and rehabilitation setting of Lai King Convalescent wards in 2018.



Editorial Comments

Effective clinical handover system is essential in promoting accurate transfer of critical information to ensure patient safety. This electronic handover system in KWC provides a platform for effective communication and care planning. It is another example of adopting information technology solution to facilitate clinical operation, quality and safety of patient care.

Dr Venus SIU, Dep. Chief Manager (Quality and Standards), HAHO

Comments are welcome

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