

# Featured Day Surgery Units:

## Day Surgery in Hong Kong

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### **Background**

Medical infrastructure in Hong Kong is mainly government funded, although charity groups subsidise some hospitals in addition to central funding from the Government. The whole territory, which has a population of eight million, is served by seven hospital clusters. Despite the fact that some hospitals have started a scheme of "Self-Financed Items" in which patients are required to pay the cost of expensive drugs, such as new chemotherapeutic agents and special instruments for some operative procedures, an average patient pays as little as US\$12 per day for in-hospital charge, which includes the room as well as all investigations and treatments during the hospital stay. The remaining cost is fully covered by the Hospital Authority of the Hong Kong Special Administrative Region (HKSAR), China.

Under these circumstances, there is no apparent motivation for patients to be treated as day cases, as the cost for finding a care-giver or for travelling may be much more than staying as an inpatient for several more days. In addition, many Chinese patients still hold the belief that the outcome following an operation is better if they are treated as an inpatient. Moreover, in the past, the medical personnel were not keen to promote day surgery services, as this would result in more work with no extra rewards to both themselves and the departments involved. The view that the implementation of day surgery might decrease inpatient bed occupancy, with a resulting reduction in resource allocations, was also an obstacle to the development of ambulatory surgery.



**Figure 1** Patient waiting area and recovery bay, United Christian Hospital, Kowloon East Cluster

Concerning surgical training in Hong Kong, there is no designated module for day surgery. The application of day surgery requires careful selection of cases and special care by specialists. In addition, the physical setup and scale of day surgery facilities varies greatly among the different hospital clusters (Figures 1 & 2): some are well equipped with operating theatres and nurse specialist for perioperative care; whereas some only comprise a small side-ward with a few beds with nurses being deployed from other surgical wards during normal working hours.



**Figure 2** Recovery Bay, Alice Ho Miu Ling Nethersole Hospital, New Territory East Cluster

Despite these limitations, ambulatory surgery has grown and developed substantially in recent years in Hong Kong. The organisation of hospitals into clusters ensures that the patient can receive public medical care with easy accessibility and the time for a patient to travel to the nearest hospital is expected to be less than an hour. This translates into easily accessible help and reassurance if a patient encounters any problems after the operation, which may range from minor wound oozing to a severe abdominal catastrophe. Although Chinese patients still hold a belief that an operation is a very major event and they should be treated as inpatients, the short travelling distances, well established ambulance service, easily assessable help and support from day surgery centres, combined with better community education all help persuade them to accept this "new concept" of care. Some

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of the measures taken to overcome the obstacles to the development of day surgery in Hong Kong include the allocation of dedicated facilities, simplified operational policies for staff, designated surgical teams and appropriate funding and planning mechanisms with regular audit. Day surgery services have relieved much of the work in some hospitals with high occupancy rates (e.g., university-based hospitals and clusters serving the lower social class population). The efforts and achievements in the development of day surgery have been recognised by a working group of the Hospital Authority of Hong Kong.

**What is your level of activity?**

According to a statistical report by the Working Group on the Future Role and Development of Ambulatory Surgery, about 1,600 inguinal hernia operations, more than 1,300 breast operations, about 350 anal surgeries and 150 laparoscopic cholecystectomies were performed annually as day cases among all cluster hospitals in HKSAR, China<sup>4</sup>. In Tung Wah Hospital, a university-based day surgery centre, day surgery comprised 19.47% of all operations performed in the hospital in the past seven years from 2001 to 2007 (average 112 out of 573 operations per year)<sup>2</sup>. With the provision of a designated team of surgeons, anaesthetists and specially trained nurses, the outcome has been encouraging. Only 0.47% of patients failed to turn up for the operation and the rate of cancellation of operations was 1.36%. Conversion to inpatient care occurred in 4.2% of patients, with the majority of cases due to wound pain and the performance of a procedure more major than expected. The readmission rate after discharge was 1.7%. This success reflects a good administrative program, ranging from patient selection, preoperative counselling and education (Figure 3), perioperative care, home care and follow-up.



**Figure 3** Explanation of day surgery to newly admitted patients, Pamela Youde Nethersole Eastern Hospital, Hong Kong Island East Cluster

**How do you run preassessment?**

In addition to a day surgery service, some centres provide preanaesthetic assessment, patient education (Figure 4), endoscopy services or a one-stop clinic for specific surgical conditions. This multidisciplinary approach to patient care not only optimises the usage and allocation of resources, but



**Figure 4** Patient information board, Alice Ho Miu Ling Nethersole Hospital, New Territory East Cluster

the quality of care is also improved. Patients are assessed on an outpatient basis with all essential investigations performed beforehand. If they are deemed unfit for same day discharge, because of medical or social reasons, they will be admitted as inpatients on the day, or the day before an operation.

**Recovery and Nurse-led discharge**

Of the seven established day surgery centres in Hong Kong, there is a great variation in the magnitude of physical setup and manpower involved. The setup can be as little as a small patient waiting room (Figure 5), from where the patients are transferred to the operating theatre and discharged directly from the recovery area or after returning to a general ward. Other centres have a designated floor for day surgery services, with a well decorated reception area (Figure 6), consultation rooms, dedicated operating theatres and recovery bay (Figure 7) within a comfortable and homely environment. The scale and scope of services simulates a community day hospital and patients benefit from the high quality professional surgical care and education. After the operation, patients are assessed by nurses for fitness for discharge (Figure 8), with the final approval granted by the anaesthetist and the attending surgeons.



**Figure 5** Patient waiting room, Ruttonjee Hospital, Hong Kong Island East Cluster

**What would you like to develop or further develop?**

The wider application of minimally invasive surgery and improvements in surgical techniques and perioperative

pain management have led to a shorter hospital stay and quicker recovery from surgery. More procedures will become suitable for day surgery. Ambulatory surgery should certainly be the trend in Hong Kong in the future, especially when the cost of medical care is escalating and the number of hospital beds is limited.



**Figure 6** Receptionist answering patient enquiries in the centre, Tung Wah Hospital, Hong Kong West Cluster



**Figure 7** Recovery bay, Tung Wah Hospital, Hong Kong West Cluster



**Figure 8** Patient receiving discharge notes from nursing staff, Pamela Youde Nethersole Eastern Hospital, Hong Kong Island East Cluster

## **References**

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## **Editorial Addendum**

### **Tseung Kwan O Hospital, Hong Kong**

During a recent visit to Hong Kong, the Editor was privileged to be invited to visit the Tseung Kwan O Hospital in Kowloon. This modern facility (Figure 9) opened in 2000 and is the only acute general hospital in the Tseung Kwan O and Sai Kung area, which has a local population of about 400,000. The hospital had developed an Ambulatory Surgery Centre (ASC) as a multi-specialty collaboration to provide services for general surgery, orthopaedics & trauma, gynaecology, otorhinolaryngology and ophthalmology.



**Figure 9** The main entrance to the modern Tseung Kwan O Hospital, located on Po Ning Lane in Kowloon

At the time of my visit, the ASU had three operating rooms and was open from 8 am to 8 pm. They were conducting about 16 general anaesthesia cases per day in the various specialities, but the large and well equipped first (Figure 10) and second stage (Figure 11) recovery facilities could clearly accommodate more patients than this. A significant proportion of the workload comprised minor



**Figure 10** The large first stage recovery unit equipped with modern trolleys. It is still early in the morning, but where are all the patients?



**Figure 12** The Editor with some of the staff of the Tseung Kwan O Ambulatory surgery unit

trauma, such as manipulation under anaesthesia of fractured wrists. Somewhere between 50-100 of these were performed a year, with the procedure either completed on the day of injury or, when a suitable theatre slot was not available, the patient was preassessed and given immediate care with a date to return for definitive day surgery.

A lot of attention had clearly been directed at preoperative assessment and patient preparation. In addition to a conventional preassessment clinic, a number of patients were selected to be seen in a Preanaesthetic Assessment Express (PACE) clinic, which was intended to streamline the process and reduce the number of return visits. Because of the limitations on capacity and variability of patient demand, at the time of my visit, approximately half of all day case patients underwent telephone preassessment. Patients who were deemed suitable for day surgery or same day admission at the surgical outpatient clinic underwent a preliminary screening with a questionnaire. They were then given some information leaflets and details of the screening program and gave consent for participating in the telephone interview. These patients were subsequently contacted for telephone interview by a specially trained anaesthetic nurse who assessed the patient using a specially designed checklist for structured anaesthetic



**Figure 11** The reclining chairs in second stage recovery were very new and luxurious, but I was assured that they were only a temporary arrangement until the electrically-operated ones were delivered!

assessment and patient education and counselling. The whole process was overseen by a specialist anaesthetist who was available to answer queries and reviewed the completed assessment records. I also had a chance to view a nicely prepared patient video, which provided a lot of useful information about likely anaesthetic techniques, especially the use of regional anaesthesia. These videos were generally played while patients were waiting for their individual appointments.

I would especially like to thank Cheng Hung-Kai, Consultant Anaesthetist and Chief of Service, Yung-Yu Ngai, the Ward Manager and Kathy Sim Foon, the day surgery Nursing Sister and all the other people I met (Figure 12) during my brief visit to the Tseung Kwan O Hospital. I am extremely grateful for their time and for the kind hospitality I received (Figure 13).



**Figure 13** The egg tarts were a particular favourite of the former Governor, Chris Patton