

# How Did We Set Up Independent Private Ambulatory Surgery Centers?

Masatoshi Tomonari, Junmei Wu, Keying Song

## Abstract

**Purpose:** Yosemite Clinic functions as independently operating private ambulatory surgery centers with its first site opened in Pudong District, Shanghai. We have provided international standard ambulatory surgery services since 2016. Some of our patients are even coming from United Kingdom, Indonesia and Japan to have surgeries. These inbound patients commented that they could get better treatments and medical services than that in their own country. We applied these experiences into setting up our second ambulatory surgical center at JingAn, Shanghai after more than two years of operation. We reviewed our facilities and verbalized the operations. Hereby, we share our efforts from our past operations with medical colleagues in China who are also struggling to set up similar ambulatory surgery centers.

**Method:** We carefully reviewed international guidelines of ambulatory surgery centers, and analysed our type of ambulatory surgery center and reviewed our advantages and disadvantages as being our type of ambulatory surgery centers.

**Results:** Yosemite Clinic is defined as a chained medical institution providing independent private ambulatory surgery centers with multi-departmental medical services. Independent ambulatory surgery center we state here is not what we usually indicated as a part of surgical center in larger hospital. It sometimes has to rely on tertiary hospital for backup of its medical care, and mostly treats commonly seen surgery-related

illness and commonly seen minimally invasive procedures. When comes to complicated procedures, it has to seek medical support from partnered tertiary hospitals. Therefore, the patient and surgical selection should have to be more carefully. Three limitations are related to patient selection. First is the limitation of medical team. The surgeons need certain training of minimally invasive surgery skills. Anesthesiologists working in ambulatory surgery centers must be familiar with ambulatory surgery workflows. Additionally, the role of nursing care also is fundamental and crucial in operating ambulatory surgery centers. Second is the limitation of patient condition. Ambulatory surgery centers have to evaluate both physical and social condition before acceptance of surgeries. Third is the limitation of facilities. Based on these limitations, each ambulatory surgery center should make their own patient selection. We have multi-surgical departments and therefore could provide multi-department surgeries. Since patients often have multiple problems in addition to the surgery-related illness, they could be better evaluated and managed better from multi-disciplinary aspects inside our facilities. At the same time, we could share some equipment and save cost by providing such services.

**Conclusion:** There is no reliable guideline specifically instructing for operating an independent private ambulatory surgery center providing multi-department services. Our experience will be helpful to establish standard operation workflows in China.

**Key words:** Ambulatory Surgery Centre, Establishment.

**Authors' Address:** Yosemite Clinic, NO.1398 Fangdian Road, Pudong New District, Shanghai 201204, China.

**Corresponding Author:** Keying Song, Yosemite Clinic, NO.1398 Fangdian Road, Pudong New District, Shanghai, China

Email: [song.keying@yosemiteclinic.com](mailto:song.keying@yosemiteclinic.com)

## Introduction

Yosemite Clinic is a pioneering healthcare institution, tagged as chained independent private ambulatory surgery centers, started its first site operation on Nov 30 2017, at Pudong District, Shanghai. We have followed Chinese regulation and have provided international standard ambulatory surgery services in a comprehensive clinic setting. Our patients' characters are quite unique. Most of our patients are Chinese and foreigners living within 10km from our clinic. Thus, we provide different language services here, such as English, Japanese in addition to Chinese. Some of our patients are even coming from United Kingdom, Indonesia and Japan to Yosemite to have surgeries. These inbound patients commented that they could get better treatments and medical services than that in their own country. We have collected vast experiences from the past more than two years' operation, and we applied them into setting up our second ambulatory surgical center at JingAn, Shanghai. We reviewed our facility and verbalized the operations. Hereby, we share our efforts from our past operations with medical colleagues in China who are also struggling to set up similar ambulatory surgery centers. Hope our experience of setting up independent private ambulatory surgery centers to helpful to peers in this field.

## Method

We carefully reviewed Chinese, European, American and Japanese guidelines of ambulatory surgery centers, and analyzed our type of ambulatory surgery center and reviewed our advantages and disadvantages as an ambulatory surgery center (1-4).

Yosemite Clinic is defined as chained private ambulatory surgery providers with multi-department medical services. The concept of a freestanding ambulatory surgery center in private medical institution has a short history in China. Unlike most of current ambulatory surgery centers in China, Yosemite ambulatory surgery center is not a part of larger hospital. And being independently operating is our unique character, and it also provides multi-departmental surgical services. We would like to discuss about our experience of independent and multi-departmental ambulatory center here.

Firstly, we would like to share the difference between dependent ambulatory center and independent one. Dependent ambulatory surgery center belongs to a large hospital and share the facility and staff with large hospital. It has benefits that large hospitals can provide backup support, such as advanced diagnostic examinations, specialist consultation, inpatient services and peri-operative intensive care units, especially when patient has commodity diseases and when unexpected complications happen. However, an independent ambulatory surgery center is not a part of surgery center in larger hospital. It is also called freestanding and isolated ambulatory surgery

center, which needs much less investments than a large hospital and could be copied faster. Independent ambulatory surgery centers have limited facilities and limited human resource. It sometimes has to rely on large hospital for state-of-the-art medical examinations, specialist consultation, and backup team supports. Therefore, the patient and surgical selection should have to be more careful. And we partnered with Shanghai No. 10th People's hospital and set up green channels with Renji Hospital and other tertiary hospital to make sure the quality & safety of our surgical patients. Once patients developed complications which could beyond control of our staff and facilities, we could immediately transfer the patients for further intensive care.

Three limitations are related to patient selection. First is the limitation of medical team capability. Minimally invasive surgery, such as laparoscopic surgery and arthroscopic surgery is a good fit for ambulatory surgery centers. Minimally invasive surgery makes it possible for patients to recover faster after surgery. In general, minimally invasive surgery requires advanced skills; the surgeons involved need certain training of minimally invasive surgeries. The surgeon or the team also needs the ability to convert minimally invasive surgery to classic open surgery when major surgical complication happens, for instance, surgeon have to convert laparoscopic surgery to open abdominal surgery when massive bleeding happens. Blood bank is crucial for a safely operating freestanding ambulatory surgery centers. Anesthesiologists working in an ambulatory surgery center must be familiar with ambulatory surgeries. In an ambulatory surgery center, patient usually can be discharged within several hours after the surgery. Less side effects and early fast-track recovery from anesthesia are necessary for patients to be discharged smoothly. Administration of short acting anesthesia drugs, pain management controlled by several kinds of nerve blocking and other pain killers play pivotal roles in minimizing the postoperative discomforts such as nausea and vomiting. The major causes of unexpected delayed discharge or patients returning to hospital are mostly post-operative pain, post-operative nausea and vomit, over sedation, delayed medical emergencies and post-operative bleeding. Multi-modality pain management plan and ultrasound-guided nerve block can reduce the dose of opiate medicine usage and can achieve fast-track recovering from anesthesia. Additionally, thorough and detailed nursing care is also fundamental and crucial in an ambulatory surgery center setting. We have to realize the variation of patients' health conditions. Children, elderly and adult with commodity disease need special review, skills and medical knowledge for the nursing team are also important. Second is the limitation of patients' condition. According to the guidelines, the patient getting admitted into an ambulatory surgery setting with absolute contraindications is rarely seen, especially when surgery is performed under local anesthesia or monitored anesthetic care. In addition to this, an ambulatory surgery center has to consider the access to our partnered hospital, escorting person and care giver at home for each patient before we make the decision to go for surgery. Third is the limitation of facilities inside an ambulatory surgery center. It has to evaluate its capability of treating complications before surgery occurs. Ventilators care should be prepared in advance if respiratory or heart failure occurs. Coronary revascularization should be needed for acute coronary syndrome. Smaller size of airway devices, SpO2 sensors and blood pressure cuffs are needed in advance for pediatric surgeries. Based on the above-mentioned limitations, each ambulatory surgery center should make their own patient selection. We strictly

evaluated our own capability of these factors and selected our surgical patients. Yosemite clinic is an independent ambulatory surgery center; therefore, our capability is smaller than dependent surgery center, in which emergency patient transferring system to large hospital and maintain close collaborations with partner hospitals are required.

Secondly, we would like to explain the difference between single-department ambulatory surgery center and multi-department one. The former is where only single department surgeries are performed, for instance, an orthopedic ambulatory surgery center just provides arthroscopic joint surgeries. The advantages are the followings. It can save cost of equipment and facility. Initial cost is relatively more economical. Medical staff can focus on specific surgeries and they can be trained well in short term. The disadvantage of it is less patient volume and need efforts to work with more freelancing doctors and to find such patients. However, when we talk about an ambulatory surgery center which has multi surgical departments and provides multi-department surgeries, the advantages are the followings. An individualized patient mostly doesn't present a single illness. Patients often have multiple problems in addition to the surgery-related illness, they could be better evaluated and managed better from multi-disciplinary aspects in an ambulatory surgery centers providing multi-departmental services. At the same time, some departments could share same equipment and would promote to more effective usage of them. The use of luminous source of laparoscopy and arthroscopy by General Surgery department, Gynecology department and Orthopedics department are a good example. The disadvantages are the following. Anesthesiologists and operating room nurses and observation room nurses have to have the capabilities to manage many types of surgeries. They need a broader range of skills and knowledge of surgeries. These would put some difficulties in looking for capable human resources. Additionally, such a surgical center carries a vast inventory of consumables. Ability to make a precise budget planning is required.

## Conclusion

After conducting the literature review, we found out that no reliable guidelines for operating an independent private ambulatory surgery center with multi-department services. Our experience will be helpful to establish standard workflows for the setting up of independent ambulatory centers in China. We sincerely wish our experience sharing could be beneficial to colleagues also in this field and contribute to a better healthcare for our patients.

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