



# Development and Exploration of Surgical Diseases and Skills in General Practice

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## To cite this article:

Chao Liu, Shi Yan Li, Shao Tao Xiang, Ze Lang Xia Mu, Dao Hong Zhou, Xiang Wang, Hua Jun Zhang, Qing Hui Wu, Ze Weng Zhi Ma, Kai Qiang Sang, Hao Zhang. Development and Exploration of Surgical Diseases and Skills in General Practice. *Science Journal of Public Health*. Vol. 10, No. 4, 2022, pp. 182-189. doi: 10.11648/j.sjph.20221004.13

Received: June 22, 2022; Accepted: July 7, 2022; Published: July 20, 2022

**Abstract:** Background: General practice is a discipline integrating clinical medicine, rehabilitation medicine and social humanities. In clinical medicine, the horizontal scope includes internal medicine, surgery, obstetrics and gynecology, pediatrics, emergency medicine and other disciplines. The imagination of surgical diseases and skills development in general practice is to integrate common surgical diseases in general practice with common and life-saving surgical skills, rehabilitation medicine and social humanities. Surgical diseases and skills in general practice mainly involve many common and frequently-occurring diseases in surgery, as well as common, routine and first-aid operations. Chinese and foreign science and technology in general practice are mainly characterized by first aid, life-saving, common and multiple surgical diseases. The development and exploration of Chinese and foreign scientific diseases and skills in general practice is in line with the actual situation of primary medical institutions in China. Purpose of research: The purpose of this study is to reduce patients' medical expenses, improve patients' satisfaction with medical treatment, and truly solve the problems such as medical difficulties, so that specialized large hospitals can concentrate on the study of tumor diseases and major surgical operations, and improve the diagnosis and treatment rate of tumors and rare diseases. Significance of research: With the progress and practice of society, the expansion of surgical diseases and skills in general practice will become the development goal of primary medical institutions in the world, bringing common diseases, frequently-occurring diseases and emergency surgical skills in multiple surgical diseases to primary hospitals, truly embodying patient-centered and making patients get benefits. At present, the development of surgical diseases and surgical skills in general practice is being explored. Problems to be solved in this study: In general practice, it is necessary to improve the theory and system of surgical diseases and skills, as well as the training scheme and opinions of surgeons.

**Keywords:** General Practice, Internal Medicine Diseases, Internal Medicine Skills, Surgical Diseases, Surgical Skills, Surgeons in General Practice, Common Diseases, Frequently Occurring Diseases

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## 1. Brief introduction of General Practice

General practice is a comprehensive medical professional discipline facing individuals, families and communities, integrating clinical medicine, preventive medicine, rehabilitation medicine and humanities and social sciences, and integrating continuous and long-term responsible care and individual and group health care [1]. Since the development of general practice in 1960s, the discipline has gradually matured, but countries all over the world have different definitions and understandings of general practice. According to the national conditions of their own countries, the general practice of all countries in the world builds a general practice discipline with its own national characteristics. In 1993, the General Practice Branch of Chinese Medical Association was established, which marked the birth of Chinese general practice. Since the development of general practice in China, Internal medicine diseases and skills in general practice mainly involve neurology, Diagnosis and treatment services for common and frequently-occurring diseases and four major puncture skills (thoracic puncture, abdominal puncture, bone marrow puncture and lumbar puncture) in many internal medicine majors such as respiratory medicine, digestive medicine, infectious medicine, cardiology, nephrology, endocrinology, hematology, rheumatology and immunology, and emergency medicine [2]. In recent years, according to China's basic national conditions, large-scale general practice research centers have gradually expanded and explored the common diseases, multiple diseases and skills of internal medicine, common diseases, multiple diseases and skills of surgery in general practice. Internal medicine diseases in general practice mainly provide internal medicine diagnosis and treatment services. Surgical diseases in general practice mainly provide surgical diagnosis and treatment services, and its expanded imagination is to provide diagnosis and treatment services for common diseases and frequently-occurring diseases in neurosurgery, orthopedics, general surgery, thoracic surgery, urology, burn surgery, vascular surgery, trauma surgery, etc. Surgeons in general practice can perform elective surgery and first-aid life-saving surgery for common surgical diseases. Since 2018, the General Practice Research Center of Sichuan Provincial People's Hospital of Sichuan Academy of Medical Sciences has gradually increased the diagnosis and treatment of patients with common and frequently-occurring surgical diseases, including surgical treatment, integrated and continuous services, laying a foundation for the imagination and exploration of surgical diseases and skills development in general practice.

## 2. The Prospect of Development and Exploration of Surgical Diseases and Skills in General Practice

### 2.1. Background of Development

Since the development of general practice in China, a complete general practice system has been established by 2020, basically realizing that there are 2-3 qualified general practitioners per 10,000 residents in urban and rural areas, mainly providing diagnosis and treatment services for common and multiple diseases of internal medicine, [3] providing a few surgical diseases and surgical skills services. At present, doctors engaged in general practice in China only account for 8% of the total number of doctors (excluding preventive health care doctors), while American general practitioners account for 34% of the total number of doctors, Britain can reach 50%, and Canadian general practitioners also account for 50% of the total number of doctors [4]. Although the number of registered general practitioners in China is less than that in other countries in the world, with the passage of time, the number of registered general practitioners in China is gradually increasing, which makes the number of doctors in primary medical institutions be supplemented to a certain extent. However, there is still a lack of doctors to solve the problems of surgical related diseases in primary medical institutions in China, so it is valuable and necessary to develop, study, explore and expand surgical diseases and skills in general practice. Foreign scholars such as Helena Britt in Australia put forward that general practitioners can perform operations, and they studied the diagnosis and treatment of surgical diseases and the statistical analysis of the number of operations performed by general practitioners in Australia in recent decades, and concluded that the number of surgical operations performed by general practitioners was 14.8/100 diseases from 1990 to 1991; 14.7/100 diseases in 2001-2003; There was basically no change during these two periods, but the number of operations increased significantly from 2013 to 2015, with 18.5/100 diseases [5]. This shows that the general practitioners trained by the General Practice Center can do surgery, and the number of operations is increasing by statistical analysis. Therefore, it lays a foundation for the imagination of surgical diseases and skill development in general practice in China.

### 2.2. Necessity of Development

In Britain 50 years ago, general practitioners could remove tumors and lumps, cut abscesses and other operations for patients under anesthesia conditions, and could treat hemorrhoids in township (community) hospitals. They used

to play many roles in surgery [6]. In 2010, British general practice began to be paperless; General practitioners with specialist interests, that is, general practitioners with sub-specialties, began to provide specialist diagnosis and treatment services for special diseases in the community [7]. Therefore, it is necessary to imagine and explore surgical diseases and skills development in general practice according to the actual situation of China, because surgical diseases and skills development in general practice will fill the blank of surgical-related diseases diagnosis and treatment services in primary medical institutions in China. From the actual fundamental to let patients really get benefits, reduce the cost of medical treatment, improve the satisfaction of patients, and really solve the problems of medical difficulties, so as to truly build a general practice with Chinese characteristics. In fact, the expansion of surgical diseases and skills in general practice makes up for the shortcomings of general practice, fills the blank of surgical skills and technical treatment in primary medical institutions, and relieves the pressure of specialized surgery in large medical centers.

### **3. Surgical Diseases and Skills in General Practice that the Similarities and Differences Between the Relationship**

#### **3.1. Contrast of Characteristics**

General practice is characterized by patient-centered, preventive, continuous, comprehensive and fair services, which reflect community-based and family-based diagnosis and treatment services [8]. Surgical diseases in general practice are characterized by patient-centered, preventive, continuous, comprehensive, fair and surgical comprehensive services, which reflect the diagnosis and treatment services based on primary medical institutions and taking families of surgical related diseases as units.

#### **3.2. Comparison of Research Objects**

The research objects of general practice include community residents, complete and healthy people and family health problems. The research objects of surgical diseases in general practice are community residents, complete and healthy people, family health problems, patients with surgical diseases and families with surgical diseases.

#### **3.3. Connection and Difference**

The connection between general practice and surgical diseases in general practice is their basic feature, and their service purposes, responsibilities, service contents, treatment methods and ethical principles are consistent. However, the main difference between surgical diseases in general practice is that they involve multidisciplinary surgical related diagnosis and treatment services, and surgical treatment is added. Therefore, there is a certain connection between

general practice and surgical diseases in general practice, but there are also some differences.

## **4. Comparison of Diagnosis and Treatment Services Between Internal Diseases and Surgical Diseases**

### **4.1. Internal Medicine Diagnosis and Treatment Service**

The service scope of internal medicine diseases in general practice is mainly medical treatment and diagnosis services.

#### **4.1.1. Neurological Disease Diagnosis and Treatment Services**

Internal medicine diseases in general practice the main diagnosis and treatment scope of common and frequently-occurring diseases in neurology includes: prevention, management, diagnosis and treatment of ischemic cerebrovascular diseases (transient ischemic attack, cerebral thrombosis, cerebral embolism), hemorrhagic cerebrovascular diseases (cerebral hemorrhage, subarachnoid hemorrhage), epilepsy, Parkinson's disease, senile dementia and other diseases [9].

#### **4.1.2. Diagnosis and Treatment Services for Other Internal Medicine Diseases**

The main diagnosis and treatment scope of common diseases and frequently-occurring diseases in internal medicine such as cardiology, respiratory medicine, digestive medicine, nephrology, hematology, endocrinology, rheumatology and immunology, infectious diseases, etc. 1/(a)Cardiovascular internal medicine: hypertension, coronary atherosclerotic heart disease, hyperlipidemia, COPD, heart failure, arrhythmia, myocarditis and cardiomyopathy, valvular heart disease, infective endocarditis and other diseases; 1/(b)Respiratory medicine: upper respiratory tract infection, chronic bronchitis, pneumonia, bronchial asthma, bronchiectasis, COPD, lung cancer, pulmonary embolism and other diseases; 1/(c)Gastroenterology: gastritis, peptic ulcer, pancreatitis, inflammatory bowel disease, common malignant tumors and other diseases; 1/(d) Nephrology: urinary tract infection, glomerulonephritis, nephrotic syndrome, interstitial nephritis, renal failure, AKI and other diseases; 1/(e) Hematology: anemia, hematological tumors, hemorrhagic diseases and other diseases; 1/(f) Endocrinology: diabetes, hyperthyroidism and gout; 1/(g)Rheumatological immunology: rheumatoid arthritis, rheumatic fever, ankylosing spondylitis, SLE; 8 Infectious diseases: prevention of infectious diseases, viral hepatitis, tuberculosis, bacillary dysentery, cholera, hemorrhagic fever with renal syndrome, infectious atypical pneumonia, AIDS, measles and other diseases. Master the mechanism, prevention, management, diagnosis and treatment of the above diseases [10].

#### **4.1.3. Emergency Internal Medicine Disease Diagnosis and Treatment Services**

Internal medicine diseases in general practice the main

diagnosis and treatment scope of common diseases and frequently-occurring diseases in emergency medicine includes: Prevention, management, diagnosis and treatment of cardiac arrest and cardiopulmonary resuscitation, on-site first aid technology, shock, acute respiratory failure, acute dyspnea, spontaneous pneumothorax, acute upper gastrointestinal bleeding, status epilepsy, massive hemoptysis, coma, acute bacteria, carbon monoxide, organophosphorus, alcohol, sedative hypnotics and other poisoning, electric shock, heatstroke, accidental injury, drowning and other diseases [11].

#### **4.1.4. Disciplinary Diseases Involving a Small Number of Diseases**

Internal medicine diseases in general practice involve few fields in the specialized diagnosis and treatment of otolaryngology, stomatology, pediatrics, obstetrics and gynecology, etc., and are generally referred for treatment by higher-level hospitals.

### **4.2. Surgical Disease Diagnosis and Treatment Services**

Imagine that surgical diseases and skills development in general practice are mainly based on surgical diagnosis and treatment services.

#### **4.2.1. Neurosurgery Disease Diagnosis and Treatment Services**

Surgical diseases in general practice. The main diagnosis and treatment scope of common diseases and frequently-occurring diseases in neurosurgery includes mastering common diseases such as increased intracranial pressure, cerebral hernia, scalp injury and skull injury, and transferring other brain tumors, hypertensive cerebral hemorrhage, aneurysm rupture and hemorrhagic diseases to specialized surgery for treatment. Surgical medicine in general practice has mastered routine and common operations such as repair of scalp laceration and avulsion injury, resection of benign mass of head, life-saving operations such as drilling to remove epidural hematoma of large bone plate, and conservative treatment of skull fracture in neurosurgery field.

#### **4.2.2. Orthopedic Disease Diagnosis and Treatment Services**

Surgical diseases in general practice. The main diagnosis and treatment scope of common diseases and frequently-occurring diseases in orthopedics includes mastering common upper and lower limb fractures, upper and lower limb joint dislocation, chronic injury of musculoskeletal system, hand trauma, simple spinal fractures, osteoporosis and other diseases. Other bone tumors, joint replacement, sports medicine, complex spinal diseases, etc. were transferred to specialized surgery for treatment. Surgical medicine in general practice should know the systematic knowledge of routine fracture tendon injury in the field of orthopedics, Understand the conventional treatment concept, Familiar with upper and lower limb fracture bandaging, fixation, traction, manual reduction, plaster

fixation of limb fracture, manual reduction of upper and lower limb joint dislocation, traction of chronic musculoskeletal system injury and rehabilitation physiotherapy, debridement and suture of hand and foot trauma, hand and foot tendon rupture anastomosis, amputation, spinal fracture handling, etc.

#### **4.2.3. Diagnosis and Treatment Services for General Surgical Diseases**

Surgical diseases in general medicine. The main diagnosis and treatment scope of common diseases and frequently-occurring diseases in general surgery includes mastering common water and electrolytes, acid-base balance and surgical nutrition. Surgical blood transfusion, Surgical shock, Skin, systemic soft tissue diseases (soft tissue infection and benign mass tumors on the body surface), Abdominal trauma (rupture of liver and spleen, gastric trauma and benign perforation, benign perforation of small intestine and colon), Combined thoracic and abdominal injuries, abdominal infection, benign thyroid diseases, benign breast diseases, inguinal hernia, femoral hernia, acute and chronic appendicitis, hemorrhoids, perianal abscess, anal fistula, anal fissure, liver abscess, biliary stones, pancreatitis, spleen diseases, thromboangiitis obliterans, common systemic soft tissue trauma, acute abdomen, benign mass of abdomen and abdominal wall and hernia diseases. Other gastrointestinal, breast, nail.

Tumor diseases such as gland, liver and gallbladder were transferred to specialized surgery for treatment. Surgical medicine in general medicine has mastered common laparotomy in the field of general surgery, Nail extraction, laparoscopic appendectomy LA, Laparoscopic cholecystectomy LC, Resection of common benign tumors on the body surface, Repair of liver rupture, Splenectomy, Drainage of pancreatic injury, Repair of benign perforation of stomach, small intestine and colon, repair of mesenteric avulsion, repair of diaphragm rupture, incision and drainage of soft tissue infection abscess, incision of benign breast mass, repair of inguinal hernia (traditional open inguinal hernia repair, TAPP, TEP), hemorrhoidectomy, anal fistula thread-drawing treatment, hemostasis of abdominal emergency hemorrhagic diseases, hernia repair.

#### **4.2.4. Diagnosis and Treatment Services for Thoracic Surgery Diseases**

Surgical diseases in general practice the main diagnosis and treatment scope of common diseases and frequently-occurring diseases in thoracic surgery includes mastering common pneumothorax, hydropneumothorax, hemothorax, pleural effusion, pleurisy, empyema, nonspecific costal chondritis, chest trauma, rib fracture and other diseases. Other lung cancer, thymoma, esophageal tumor diseases and cardiac surgery related diseases were transferred to specialized surgery for treatment. Surgical medicine in general practice has mastered the common closed thoracic drainage, thoracotomy hemostasis or thoracoscopic intrathoracic hemostasis, intrathoracic abscess removal, chest wall trauma repair, rib fracture internal

fixation and thoracic puncture in the field of thoracic surgery.

#### **4.2.5. Diagnosis and Treatment Services for Other Surgical Diseases Involving a Small Number of Diseases**

Surgical diseases in general practice: 2/(a) The main diagnosis and treatment scope of common diseases and frequently-occurring diseases in urology, burn surgery, vascular surgery and trauma surgery. Master common urology: kidney injury, renal tuberculosis, renal and ureteral calculi, bladder calculi, prostatitis, prostatic hyperplasia, epididymitis, acute testicular torsion, testicular hydrocele and other diseases; 2/(b) Burn surgery: calculation and algorithm of fluid replacement for burns and scalds, dressing change, chronic soft tissue ulcer and diabetic foot. 2/(c) Vascular surgery: varicose veins of lower limbs, first aid and treatment of vascular trauma, acute arterial embolism and other diseases; 2/(d) Traumatic surgery: First aid and treatment of trauma of various organs and tissues. Other diseases such as urinary system tumors, severe kidney injuries, urethral and bladder injuries, yin meridian cancer, skin grafting in the later stage of burns and scalds, and arteriovenous embolism were transferred to specialized surgery for treatment. Surgical medicine in general practice can master the common extracorporeal shock wave lithotripsy ESWL in the fields of urology, burn surgery, vascular surgery and trauma surgery. Percutaneous nephrolithotomy PNL, Ureteroscopic lithotripsy, Laparoscopic ureterolithotomy, circumcision, acute testicular torsion reduction, debridement of burns and scalds, wound negative pressure suction VSD implantation, chronic lower limb ulcer repair, great vessel anastomosis, simple high ligation of great saphenous vein of lower limbs + varicose vein stripping, and repair of trauma of various organs and tissues.

## **5. Surgical Diseases and Skills in General Practice Are Inevitable**

### **5.1. It Is Inevitable to Expand Surgical Diseases and Skills in General Practice in China**

From the end of 1980s, the concept of general practice was formally introduced into China. Since the early 1990s, Some provinces and cities across the country began to carry out the spread of general practice and the pilot and research work of general practice [12]. With the support of the Chinese government, through decades of efforts, general practice has initially formed a complete general practice system, which has gradually increased the number of general practitioners in primary medical institutions in China. At present, general practitioners in China mainly provide preventive health care services, focusing on the diagnosis and treatment of internal medicine diseases; A few surgical diseases and skills services. However, according to China's basic national conditions, there is a lack of doctors who can solve problems in primary medical institutions, so it is inevitable and imperative to expand and explore surgical diseases and skills in general practice in China. At present, the training of surgical diseases

and surgical skills in general practice in China needs the help and support of many specialized surgeons; When the technical development of surgical diseases and surgical skills in general practice is mature, the surgical study of general practitioners will be trained by the General Practice Center, which can better reflect the characteristics and value of general practice. Since 2018, the General Practice Center of Sichuan Provincial People's Hospital of Sichuan Academy of Medical Sciences has cooperated in training general practitioners in general surgery, thoracic surgery, emergency surgery, orthopedics, vascular surgery and urology, while exploring the diagnosis and treatment of common and frequently-occurring diseases. As well as common surgical treatments, so as to give full play to the characteristics of general practice, lay the foundation and technology for the development of surgical diseases and skills in general practice, and provide surgical treatment services for patients to really benefit.

### **5.2. Surgeons in General Practice Will Become Surgeons in Primary Medical Institutions in China in the Future**

In China's health system, general practitioners mainly advocated providing internal medicine, preventive health care diagnosis and treatment services [13], while a few surgical diseases and skills services, mainly surgical diagnosis and treatment services based on debridement. With the increase of the number of general practitioners, the ability of primary medical technical services has gradually improved. However, there is a lack of doctors at the grass-roots level who mainly provide surgical diseases and surgical diagnosis and treatment services. Therefore, it is of great significance to expand surgical diseases and skills in general practice, so that general practitioners can provide technical services for diagnosis and treatment of common and frequently-occurring diseases of multiple surgical diseases in future primary medical institutions, and some general practitioners can become the mainstream of providing technical services for common, frequently-occurring diseases and common surgical treatment in primary medical institutions.

## **6. The Development and Exploration of Surgical Diseases and Skills in General Practice in Primary Hospitals in China**

At present, the development and exploration of surgical diseases and skills in general practice are being explored and practiced in primary medical institutions in China. At present, the expansion of surgical diseases and skills in general practice is in the stage of creativity, exploration and practice. At present, Chinese general practitioners are imagining the expansion of surgical diseases and skills in general practice; Practiced in primary medical institutions in China. For example, LA and LC in general surgery, laparotomy for abdominal hemorrhage, resection of benign mass of whole body soft tissue, repair of whole body soft tissue injury,

repair of inguinal hernia, repair of gastrointestinal perforation, nail extraction, incision and drainage of abscess, hemorrhoid surgery, etc., such as acute testicular torsion reduction, foreskin surgery and stone surgery in urology. For example, closed thoracic drainage in thoracic surgery, hemostasis of thoracic vascular rupture, rib fixation and so on. For example, fracture bandaging, fixation, handling, tendon rupture suture, debridement of hand and foot trauma, etc. There are other common diseases and frequently-occurring diseases in surgery, as well as common operations, which are not listed one by one. To sum up, the common operations carried out by doctors who mainly provide surgical technical treatment services in general practice are expanded for surgical diseases and skills in general practice in the practice and exploration of grass-roots hospitals; The birth of theory lays a good practical foundation. In the past, primary medical institutions in China used to operate on common diseases and emergency diseases related to surgery. Because there is no surgeon's help, they are referred to higher-level hospitals, which increases the financial burden of patients and sometimes delays the patient's condition (for example, the acute testicular torsion can be cured by surgery in time after being discovered, the testicular torsion problem is not treated in time, and the testis only ends in necrosis), thus increasing the burden of large surgical medical centers. At present, doctors who mainly provide surgical technical diagnosis and treatment services in general practice in China carry out surgery for common and frequently-occurring diseases in primary medical institutions, Let the grass-roots patients get timely treatment, do not miss the best operation opportunity, do not delay the illness, reduce the burden on large hospitals, and at the same time, the economic cost of grass-roots patients is less, which ultimately increases patient satisfaction. The case analysis of exploring and practicing the expansion of surgical diseases and skills in general practice in grass-roots hospitals is as follows: Daocheng County, Ganzi Prefecture, Sichuan Province is a small county with a resident population of 33, 300. Daocheng County People's Hospital is a second-class first-class hospital, but the scale and branches of county hospitals basically conform to the hospitals or community service centers in developed areas. The clinical disciplines of the hospital include major internal medicine, major surgery, obstetrics and gynecology, emergency department and rehabilitation department. In the surgical department of Daocheng County People's Hospital, it mainly provides surgical technical diagnosis and treatment services for many surgery-related diseases including neurosurgery, orthopedics, general surgery, thoracic surgery, urology, burn surgery, trauma surgery, etc., providing 30 beds. The medical staff in the operation department of Daocheng County People's Hospital includes one deputy chief physician, one attending physician, one physician and three assistant physicians. At present, there are only 4 doctors who can independently carry out surgical treatment services in this department, and 2 doctors are surgical posts. However, the doctors trained for internal medicine show that there is a shortage of surgeons at the grass-roots level. From January

2021 to December 2021, the total number of inpatients in this department was 623, and some patients were referred to higher-level hospitals for treatment due to religious culture and serious illness. In 2021, there were 163 surgical treatments in the inpatient department of Daocheng County People's Hospital, including general surgery.

102 operations were performed (including laparotomy, laparoscopic appendectomy LA, laparoscopic cholecystectomy LC, liver rupture repair, splenectomy, benign perforation repair of stomach, small intestine and colon, mesenteric avulsion repair, diaphragm rupture repair, inguinal hernia repair, hemorrhoidectomy and anal fistula thread-drawing operation). There were 2 neurosurgery operations (involving epidural hematoma removal, epidural hematoma removal after taking out large bone plate and subdural hematoma removal). There are 37 orthopedic operations (involving plate fixation of limbs and ribs fractures, removal of plate fixators of limbs, PKP of spinal compression fractures, and suture of tendon rupture. Finally, there are 22 related operations in thoracic surgery, urology, burn surgery, trauma surgery and other surgical disciplines (involving closed thoracic drainage, Circumcision, reduction of acute testicular torsion, debridement of burns and scalds, bandaging, VSD implantation of wound negative pressure suction, repair of chronic lower limb ulcer, great vessel anastomosis, simple high ligation of great saphenous vein of lower limbs + exfoliation of varicose vein). The number of outpatient and emergency operations cannot be counted specifically due to systematic reasons in our hospital. However, the scope of operations involved is mainly general surgery and orthopedic surgery, including benign mass resection, abscess incision and drainage, extended debridement and suture, single tendon rupture anastomosis, foreign body removal, hand and foot debridement or amputation, plaster external fixation + fracture manual reduction, joint dislocation reduction, dressing change, extracorporeal ultrasonic shock wave lithotripsy and so on. From January 2021 to December 2021, the profit of the department was about 2 million yuan, which reflected the increase of the income of grassroots doctors. The above data show that there is a lack of doctors who mainly provide surgical treatment services in primary health care, From the scope, quantity and nature of surgery, first-aid, life-saving and selective surgery is the main treatment for common and frequently-occurring diseases in surgery, which also shows that the expansion of surgical diseases and skills in general practice, as well as the surgical technical diagnosis and treatment services provided have indelible credit, significance and value at the grass-roots level.

## **7. Improve the Theoretical and Practical Basis, as Well as the Training Program**

With the trial implementation of the medical grading diagnosis and treatment system in China; With the increase

of the number of general practitioners and the improvement of technology, the technical level of primary medical care in China has been further improved, and the lack of medical resources has been improved. However, from the practice of primary medical institutions in China; Primary medical institutions still lack doctors who can perform surgeries [14]. At present, the development of surgical diseases and skills in general practice in China is in the primary stage of imagination, exploration and practice. The theory and practice of surgical diseases and skills in general practice need to be strengthened and improved. We also have a long way to go and a lot of things to do. At the same time, the development also needs the support of the national government, the training of colleges and universities, the training of general practice centers in large-scale 3A hospitals, and the struggle and efforts of all general practitioners. The expansion of surgical diseases and skills in general practice is both an opportunity and a challenge for the development of general practice.

The cultivation of surgical diseases, skills and techniques in general practice can be divided into three stages: the first stage; The training of surgical diseases, techniques and skills in general practice needs the assistance, help and support of large-scale multi-specialist surgical medical centers to train general practitioners and teachers. In the existing standardized training time for residents of general practice in China, the study time of surgical diseases is increased, which mainly reflects the study of general practice content and the training of first aid, life-saving, common and frequently-occurring diseases and common surgical skills. At present, Mei Renlang and other scholars have suggested that general practitioners can arrange one operation study and two one-on-one operation counseling every week in the training of general practitioners, so as to train general practitioners to have the ability to perform emergency laparotomy [15]. Practical study of surgical theory and clinical skills has been arranged in the training system of general practice in Australia and China [16]. This shows that the general practitioner training program is to make the general practitioner have the basic theory of surgery and the practical ability of clinical skills. Therefore, we need to strengthen and improve the expansion of surgical diseases and skills in general practice. The second stage; With the support of national policies, the education and training of colleges and universities, and the training of general practice centers in third-class first-class general hospitals, a large number of general practitioners who mainly provide surgical technical treatment services are trained. The third stage; After the expansion, development theory and practice of surgical diseases and skills in general practice are fully improved; And after the development of surgical skills is mature, doctors who mainly provide surgical technical diagnosis and treatment services in the General Practice Center will develop a number of common surgical diseases, frequently-occurring diseases and first-aid diseases in general practice; And surgical treatment, surgical skills and techniques; Train your own general

practitioner.

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