

# **SURGICAL SERVICES INITIATIVE: TAKING MODERN SURGERY TO THE POOR**

## **INTRODUCTION**

The World Health Organization has estimated that 11% of the global disease burden can be treated with surgical procedures, but there are 2 billion people who have no access to basic surgical care. Out of the 234 million surgeries carried out each year, the world's poorest third gets only 3.5%.

Surgical Services Initiative is a group of Doctors, who have come together as a non-profit organization, to provide quality multispecialty cost effective surgical services to rural based Christian Hospitals and other charitable hospitals in India as deemed appropriate so that patients in these regions are benefited by low cost surgical services. The local Doctors also receive training in these fields.

## **THE CONCEPT**

The Diagnostic camps help in diagnosing the surgically treatable conditions in remote and rural areas. The diagnostic camps take all of the diagnostic facilities that are usually available at hospitals to remote rural areas. The entire laboratory with all of the possible investigations is available in the remote area, including the pharmacy, gastroscopy, Cystoscopy, ultrasound examinations, etc., though X-rays are logistically difficult. The local churches, social service organizations or the villages themselves organize these diagnostic camps. They use the consultation fee to cover their expenses, and patients are happy to pay for the investigations, medicines and procedures.

Once diagnosed the surgical patients get their treatment at the surgical camps. The surgical camps are located near hospitals or health care facilities. Advanced surgical procedures, endoscopic surgical procedures and laparoscopic surgical procedures are possible with the set of mobile equipment earmarked for these camps. Qualified and trained personnel are available at these hospitals for the surgical camp. Half the fee that the patients pay is for organizing the surgical camps, and the other half is for the local hospital.

## **THE EXPERIENCE**

We have carried out these diagnostic camps and surgical camps for over 3 decades in remote areas in Gujarat and Northeast India. The first publication regarding these camps received the Barker Memorial Prize given by Tropical Doctor in 1997 [1]. It was possible to take advanced surgical procedures to these remote rural areas.

The study at Burrows Memorial Christian Hospital published in Indian Journal of Surgery showed that the model is financially viable [2]. Donations were necessary only for the capital items. Many patients in rural areas benefited from minimally -invasive surgical procedures.

In another study published in the Australia and New Zealand Journal of Surgery [3], calculations showed that more than half of the patients who required surgical intervention for prostate disease did get the necessary treatment with this model.

## **THE ADVANTAGES**

The advantages of the surgical camp model are

- It is a cost-effective model that has existed for over 3 decades. Funds are necessary only for the capital needs.
- About three-fourths of the patients requiring surgical intervention were diagnosed for the first time during these camps in remote rural areas. The ultrasound examinations and scopes contributed a lot to the diagnosis of surgical conditions.

- The surgical camps offered a great way for training the local surgeons and trainee surgeons, as there were many more surgical patients during the camps.
- Thousands of patients were able to have modern minimally -invasive surgeries at a very nominal cost.
- Various innovations were possible during these surgical camps. Many articles were published in national and international journals from the findings and innovations made during these surgical camps.
- Unlike the medical conditions diagnosed during the diagnostic camps, surgical treatment often provides a permanent cure.
- Others have successfully replicated the model.

Through this model, patients in rural areas can receive the necessary care at a more reasonable cost than otherwise possible, and the fast recovery time of minimally -invasive surgery allows them to return to their daily lives more quickly.

### **ACTIVITIES OF SURGICAL SERVICES INITIATIVE**

- Diagnostic camps
- Surgical camps
- Surgical camp exposure for medical students, interns and volunteers
- Training programme
- Working holidays
- Medical Tourism
- Resource sharing between hospitals
- Upgrading of local operation theatres
- Research work related to low cost equipment

### **THE OPPORTUNITIES**

- FOR LEARNING
- FOR TEACHING
- FOR UPGRADING FACILITIES
- FOR SERVING

The following are the ways to get involved

- Volunteering for the surgical and diagnostic camps in remote and rural areas
- Helping with the research program
- Donating to the program
- Joining as full time staff
- Carrying donated medical supplies to the surgical camps
- Funding research projects

### **A TYPICAL MONTH WITH SSI SURGICAL CAMP**

In March, 2014 surgical camps were held at few places in Mizoram, Manipur and a workshop in West Bengal. Table 1 gives the list of surgical procedures carried out. The following were the benefits from the surgical camp

- A. 98 patients benefitted from surgical procedures which they would not have been able to afford otherwise
- B. Two surgeons were able to assist and learn procedures that they had not seen earlier

- C. The above surgeons were able to learn many new procedures which they were able to perform independently towards the end of the surgical camp

**Table 1: List of surgical procedures carried out**

SSI Surgical Camp March 2014		
Sl. No.	Type of Surgery	Number of Surgeries performed
1	Double J loop Stenting B/L	15
2	Double J loop Stenting Unilateral (Right)	9
3	Double J loop Stenting Unilateral (Left)	9
4	URS left	5
5	URS right	3
6	URS + Lithotripsy (right)	3
7	URS + Lithotripsy (left)	3
8	Trans-urethral Vaporization of Prostate	9
9	Trans-urethral Vaporization of Tumour(Bladder)	5
10	CMG + Cystoscopy	18
11	Vaginoscopy	1
12	Stent Removal	2
13	Endoscopic Internal Urethrotomy(EIU)	2
14	Lateral Anal Spinchterectomy (LAS)	1
15	VVF Repair	1
16	Hypospadiasis repair (ASOPA)	1
17	Cystoscopy	2
18	EUA	1
19	SILLS Ovarian Cystectomy	1
20	SILLS Appendectomy	2
21	Lift Laparoscopy Cholecystectomy	1
22	SILLS Diagnostic Laparoscopy	1
23	Upper GI Endoscopy	10
24	Laparoscopic Cholecystectomy	3
	Total Surgeries and Procedures	108

SILLS = Single Incision Lift Laparoscopic Surgery [Gasless laparoscopic surgery]

## SUMMARY

Surgical Services Initiative [SSI] is a cost effective way of offering surgical treatment to the poor and the marginalized. It provided opportunities for seniors like Dr. Michael Rhodes [Past president of Association of Laparoscopic surgeons of Great Briton and Ireland] to teach. It helps junior surgeons like Dr. Sungtiakum Jamir and Dr. Nandamani to learn new procedures. It helps the remote rural hospitals to provide advanced surgeries and the poor and the marginalized greatly benefit from the initiative.

Those interested can contact Dr. Sungti, the Executive Director of SSI [s\_akjam@yahoo.com] for further details.

## REFERENCES

1. Gnanaraj J, Gnanaraj L, Shah VK. How to bring surgery to remote tribal areas: Tropical Doctor 1997 Jul; 27 (3) : 163 - 5)
2. Gnanaraj J, Lau Xe Xiang Jason, Hanah Khiangte. . High quality surgical care at low cost: The Diagnostic camp model of Burrows Memorial Christian Hospital Indian Journal of Surgery Vol. 69, No. 6, December 2007 p 243-247
3. Gnanaraj J, Lionel Gnanaraj. Transurethral electrovaporisation of prostate: A boon to the rural surgeon. Aust N Z J Surg 2007 Aug; 77 (8) 708)

**Figure 1: Sometimes one has to clear the road before going ahead**



**Figure 2: A Diagnostic camp in progress**



**Figure 3: Sometimes even the backup generator fails and torch light comes to the aid**



**Figure 4: Lift Laparoscopic surgery [gasless laparoscopy] workshop at Midnapore Medical College**

