

**Narrative and Financial Report on
Support for Surgical Training Program
at Jan Swasthya Sahyog**

Submitted to

Friends of JSS in UK

29.05.2020

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Jan Swasthya Sahyog (JSS) — a voluntary, non-profit, registered society was founded by a group of health professionals committed to developing a low-cost and effective health program that provides both preventive and curative services in the tribal and rural areas of Bilaspur district of Chhattisgarh state in central India.

The three-tier system at JSS that includes village health workers-based community health program as tier one, the subcentres manned by senior health workers as tier two and a referral centre at village Ganiyari as the third tier has been proven to be a successful model. While the community program plays a major role in reaching out to people and increasing awareness, the referral centre caters to everything that cannot be handled at tier one and two. Around 70% of patients admitted to the referral hospital present with problems that require surgical intervention. Thus, surgical services have been a crucial part of the clinical program since 2001.

Surgery has been the traditional stepchild of public health and thus at JSS, it is ensured that these needs are neither ignored nor trivialised. With the support received from Friends of JSS in the UK, we were able to scale up our surgical team. The DNB General Surgery post-graduate training program that was started in June 2019 has added 2 surgical resident doctors to the team and are about to finish 1st year of residency in a few months. They will be trained over the course of 3 years. The in-house senior doctors act as mentors but to facilitate training in other areas of surgery such as ENT surgery, uro-surgery, neurosurgery, onco-surgery for instance, we also have visiting surgery faculty. These surgeons now come more frequently, at least twice a week, as opposed to once a week earlier. This has resulted in ensuring learning and catering to a greater number of patients at the same time and less delays in treatment.

We are also extremely grateful for the support provided for procuring laparoscopic equipment. It plays a vital role in enhancing the quality of surgical services. We have placed orders and made advance payments for a CO₂ insufflator, an LED light source and cautery for laparoscopy with vessel sealer. The cost for these amounts to Rs. 4,70,000. For remaining items that we had planned to procure, we have narrowed down the supplier and quality but due to the lockdown since 22nd March 2020, offices of the firms are closed in Mumbai and formal orders are not being accepted.

Our existing inpatient services with 100 beds and an operation theatre complex (including 2 major operation theatres, 2 minor OTs and a labour room) has provided high-quality surgical services to more than 32,000 patients and over 30,000 inpatients have been admitted and treated for serious illnesses. With plans to augment the surgical wing also infrastructurally, a new surgical ward is being constructed next to the current OT complex, which will add another 20 beds and will prove to be very beneficial. It will help in reducing inconvenience caused to patients, since the ones with less dependency have to be moved to the Dharamshala or couple of cases

have to be referred to hospitals in Bilaspur, which is a hassle for the patients, both logistically and financially, who have often already travelled over 100 kms to get to JSS in the first place.



Ground Floor of the New Surgical Ward



New surgical wards

Over 4000 minor and major procedures have been performed in the year 2018 and 2019. Most common surgical emergencies include road traffic accidents, falls from trees, thresher injuries, acute abdominal conditions including intestinal perforations, ruptured ectopic pregnancies, intestinal obstructions, and bleeding from the gastrointestinal tract or female genital tract. New-born and childhood surgical problems are also treated frequently because of the availability of one of the only paediatric surgeons in the public sector, working at JSS. Apart from this, other major procedures that were performed in the last year include gastrocystoplasty, Snodgrass

urethroplasty, hemi mandibulectomy with neck dissection, truncal vagotomy & gastrojejunal anastomosis, thyroidectomy to name a few. Couple of case stories below paint a picture.

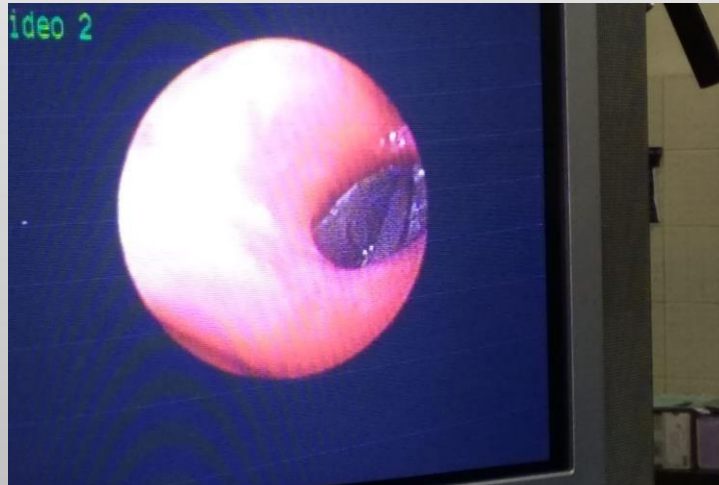
A 40-year-old lady from a remote tribal hamlet of eastern MP (230 km from Ganiyari) presented to the Emergency room of JSS with a massive anterior neck mass, audible stridor and respiratory distress. She was evaluated to have papillary carcinoma of the thyroid with lung and bone metastases (pathological fracture of left femur). Social constraints had limited her accessibility to any formal medical care prior.

Laryngeal involvement in thyroid papillary carcinoma is very rare and is generally associated with multi-visceral involvement, as in our case. Due to her stridor and tracheal compression by the massive tumor, airway maintenance was very problematic. We decided on an urgent Tracheostomy (a hole in her wind pipe), though we were apprehensive that the trachea may be difficult to reach for the procedure of creating the window. Hence, we were prepared for a much more complex and difficult procedure to remove her neck thyroid cancer and even her larynx (voice box), for which we took her consent. The patient finally ended up with a total thyroidectomy with total laryngectomy and right posterolateral neck dissection with limited central nodal clearance. The immediate post - operative course was relatively smooth except for transient hypotension and lobar pneumonia which improved with appropriate management.



This case raised some important questions. Should a rural hospital be limited to a pre-determined complexity or just like the community that they serve, adapt to adversity? Both the modes have their own pitfalls. According to the first ideology, a difficult tracheostomy or total laryngectomy is not the domain of a rural hospital. But, with the resource limitations facing this tribal population (financial, knowledge, accessibility), would they be able to afford care elsewhere? Or, would we have been righteous in offering comfort as the best palliation? We do not know the answers but aligning the ethics of surgery with the patient's best interests, must be done.

An 11-year-old boy presented to the Emergency Room at JSS Hospital with cough, and respiratory distress for 2 days. He has aspirated a foreign body (whistle) accidentally and had been under treatment at a private hospital in Bilaspur town. An attempt at removal of the foreign body using bronchoscopy was unsuccessful and hence, the child was brought to JSS.



Aspirated foreign body

He was optimized with I/V antibiotics; nebulization and chest physiotherapy and within a few hours taken up for bronchoscopy. The whistle (foreign body) was visualized in his right bronchus (tertiary) and removed successfully. The child recovered dramatically and was ready for discharge 72 hours later.

A 9-year-old frail boy was brought into the surgical OPD carried in his arms by his father. They belonged to an interior village 200 kms from the hospital. He was skin and bone, utterly undernourished. He had been vomiting for almost 2 months and was unable to retain any food. Clinically and radiologically, he was found to have an upper intestinal obstruction for which he was prepared to surgery. At laparotomy, a jejunal structure (likely due to tuberculosis), was found with significant proximal intestinal dilatation. A simple resection of the stenosed segment of intestine with anastomosis, relieved his obstruction. His nutritional rehabilitation required total parenteral nutrition and subsequent jejunostomy and oral food rich in proteins and calories. The picture here shows the remarkable recovery of this boy on his first follow-up visit after discharge a month later.

A 43-year-old man, a farmer, from a remote village near Kota presented to our surgical OPD with the complaint of an ulceroproliferative lesion in his right gingivobuccal sulcus (right side of mouth), also involving his skin over right lower cheek. He also had palpatory lymph nodes on the right side of his neck. He wasn't able to eat or speak properly because of his problem. We did a punch biopsy and histopathological report was suggestive of oral cancer. We gave him 3 neo-adjuvant chemotherapy cycles (to reduce the size of the tumour pre-surgery). Then, he was admitted at JSS for definitive surgery.



Patient on admission



Patient on 12th post-operative day

He underwent right hemi mandibulectomy (removal of involved right jaw) plus right modified neck dissection (removal of involved nodes) plus pectoralis major flap reconstruction (where a musculo aponeurotic system (flap) is removed from right part of chest and carefully sutured over the defect that has been created during surgery). In the post-operative period, we started him on NG feeds and gradually shifted him to oral feeds when his oral wound was healthy enough. His flap was taken up nicely (healthy). We also had to build him up nutritionally as nutrition plays an important role in wound healing. We also had to transfuse him with blood, since his Hb was 6.5. Before discharge he was also given one-cycle of adjuvant chemotherapy. After 12 days after surgery, the patient was ready to go home and support his family with at least some of his problems solved, if not all.

A 40-year-old lady from one of the villages in the Achanakmar forest developed rectal bleeding and severe anaemia, when she was referred to the JSS hospital from the JSS outreach clinic. She was found to have rectal cancer which required surgical intervention. She was optimized preoperatively with blood transfusions, underwent appropriate imaging studies and was then operated here. An abdominoperineal resection (APR) was performed for a curative resection of her malignancy. Her final histopathology did not entail any further adjuvant therapy. She had learnt her stoma management well and gained weight since.

At JSS we strive to make healthcare accessible and affordable at the same time. The focus in surgical procedures has been on minimizing costs by providing frill-free, basic care without compromising quality at any stage of care. To meet this goal, JSS adapts strategies that have proven to be successful at other institutions, and works to find innovative alternatives when necessary. While JSS announces standard prices for each procedure, patients are treated based on need, irrespective of their ability to pay. As a result, only a fraction of the patients pays the full price and several are treated at no charge. Hence, JSS depends on contributions from philanthropists like Friends of JSS.

The financial report for the FY 2019-20 is as below-

Expense statement for the project - Support for surgical training program at Jan Swasthya Sahyog FY: 2019-20						
A	Support for Training Program with Salaries	Unit	Rate	Period	Total Budget	Expenses April19 - March20
1	Stipend for General Surgery Residents	2	40,000	12	960,000	-
2	Part support for consultant	1	50,000	12	600,000	588,513
3	Salaries of 2 nurses	2	12,000	12	288,000	394,916
					1,848,000	983,429
B	Essential equipment support					
1	Laparoscopy equipment	1	10,50,000	1	1,050,000	-
	Total				2,898,000	983,429
Summary			Grant received			
	Opening balance as on 1st April2019	513,948.89			Dt-28.8.2019	426,610.84
	Grant received till April2019 - March2020	1,294,077.49			Dt-30.9.2019	420,285.30
	Total Balance	1,808,026.38			Dt-22.10.2019	447,181.35
	Expenses April2019-March2020	983,429.00			Total	1,294,077.49
	Balance	824,597.38				

In the next 6 months to one year, we expect to add two trainee resident surgeons, one surgical senior resident and a new modular operation theatre. Also, an endoscopy facility for flexible UGI endoscopy, colonoscopy and bronchoscopy are coming up. We hope to add a dedicated surgical HDU with 6 beds and facilities for advanced laparoscopic work. All this would of course require major resources – both human & financial and moral support of well-wishers for this work. A continued beneficence would be a great support in running the services and adding value.

Almost all our patients (including the cases mentioned) are from rural, poor socio-economic background, and we endeavour to provide cost-effective, high-quality services promptly, to enable good outcomes, without impinging the pockets of the patients. To this end, we make all attempts to utilize available government schemes for health insurance (even though they provide limited resources and that too only for inpatient care) and provide relief to patients through discounts, ranging from 50% to 100%. The bottom line has always been to provide the same level of care as required and ensure that the patient is not spending much from own pocket. We are enormously thankful for the unfailing support we have received and hope this association strengthens our bond in helping to make affordable healthcare more accessible to the underserved.

Proposal for support:

We request FOJ UK to kindly continue to support the Surgical Training Program at Jan Swasthya Sahyog for the FY 2020-21. The ‘Laparoscopy equipment’ is re-budgeted in the year 2020-21 as the procurement under process now. Also, with 2 new residents joining in June 2020, the total no. of trainee-residents in the department will be 4. We are requesting FOJUK’s kind support for them.

The budget is as below –

Proposed budget for Support for surgical training program at Jan Swasthya Sahyog April 2020 - March 2021					
A	Support for Training Program with Salaries	Unit	Rate	Period	Budget amount
1	Stipend for General Surgery Residents	4	40,000	12	1,920,000
2	Part support for consultant	1	50,000	12	600,000
3	Salaries of 2 nurses	2	12,000	12	288,000
					2,808,000
B	Essential equipment support				
1	Laparoscopy equipment	1	10,50,000	1	1,050,000
	Total				3,858,000

The total budget requested is Rs thirty-eight lakh, fifty-eight thousands only.

DNB Training Program at JSS – Response to additional information requested

1. Number of clinics done by trainees per week, are they supervised?

JSS believes in training true surgical generalists who can provide the critical access to surgery needed in rural areas and be able to be a true generalist. Hence, they must get a feel of what emergency calls can be (medical, surgical or any other specialty), what people's health and social issues and needs are. The Surgery residents were rotated through various specialties for the first 6 months including general medicine, emergency medicine and ICU, pediatrics and OBGYN besides introduction to the community health program and clinics at health and wellness centers. Their Surgical stint started after these introductions and rotations. Both the residents also underwent trainings in BLS and then ATLS, use of the hospital electronic medical records, negotiating investigations, prescriptions and pharmacy.

Both the trainees attended OPDs and inpatients under supervision of a Senior or Junior Faculty in these respective units. Both are in the Surgery Department for the last 5 months now. They attended OPD for 3 months with Senior Residents and the consultants. Since the last 3 months, they have been seeing outpatients, supervised by the consultants. The OPD runs thrice a week and on these days one resident is posted in the OPD whereas the other is in the OT. Basic cases are handled by the resident and the respective consultants are consulted for more complex ones.

The hopes and expectations from Surgery residency at JSS as thought of, while starting the program are on - <http://www.jssbilaspur.org/general-surgery-residency/>

2. Number of supervised ward rounds per week by the trainees, similarly service ward rounds per week

As far as ward work and rounds are concerned, surgical wards are managed primarily by the residents and Senior residents supervising them. There are two/three sets of rounds daily - first by the residents, the second one with the senior resident and then with the consultants for critical cases that need more discussion. The working/service rounds happen daily, and the teaching rounds by senior consultants happen twice weekly.

3. Number of supervised theatre lists each trainee does per week

List of surgeries performed and assisted by both the DNB residents are given below: (this is for last 6 months):

Dr. Pranav Dhamdhare		
Procedure	Role	
	Primary surgeon	Assisted
Cholecystectomy	1	9
Lap. Cholecystectomy	0	2
Nephrolithotomy	1	8
Fistulectomy	6	4
Epigastric hernia repair	2	5
Inguinal hernia	4	15
Circumcision	2	2
Lymph node biopsy	4	6
Punch biopsy	15	0
Other biopsies	20	0
Fasciotomy	2	4
I and D	15	5
Lipoma excision	2	3
FJ	0	1
Cyst excisions seb/dermoid	3	1
Cystolithotomy	1	1
Fibroadenoma excision	3	4
Simple mastectomy	50% solo	1
Anal dilatation (lord's procedure)	6	1
Anal banding	5	0
Hydroceles	10	2
Fnac	1	0
Chest tube	1	4
SSG	0	7
SPC	1	4
Spinal anaesthesia	22	0
Amputations: finger/midfoot/metatarsal solo	3	4
TV GJA	0	6
MRM	0	4
Hemimandibulectomy	0	5
Colostomy	0	3
Colostomy closure	0	3
Brain abscess drainage	0	1
Tracheostomy	0	1
Total laryngectomy	0	1
Total thyroidectomy	0	1
Thoracotomy + hydatid lung excision	0	1
Gastrectomy	0	3

Orchidopexy	0	4
PMDS case	0	1
Ureterostomy	0	1
Ureterolithotomy	0	2
Urethroplasty (Snodgrass)	0	2
Corporeal shunt for priapism	0	1
Nephrectomy	0	1
Open prosectomy	0	1
Wertheim hysterectomy	0	2
pan hysterectomy	0	1
Lscs	0	10
Orchidectomy	0	3
Thyroglossal cyst excision	0	3
Meckel's diverticulum+infected cyst excision	0	1
Hemicolectomy assist	0	3
Pyeloplasty	0	3
Pyelolithotomy	0	2
Cystoscopic dj stent removal	1	0
Triple bypass	0	1
Intestinal obstruction	0	7
Gastric/Duodenal perf repair (Peritonitis)	0	3
APR	0	1
Wide local excision of thigh mass (squamous cell carcinoma)	1	0

Observed : eloessers flap , vp shunt, urethroplasties, decortications, gastrocystoplasty, TURP, TEF repair, NISSEN fundoplication, cystoscopies, bronchoscopic removal of FB, hydatid cyst excision, APR, Exomphalos major, gastroschisis .

Dr. Dipankan Jana		
Procedure	Role	
	Primary surgeon	Assisted
Herniorrhaphy/Hernioplasty	12	6
hydrocoele (eversion of sac)	18	5
Appendectomy	5	2
Incision and drainage	15	7
Cholecystectomy	0	4
Below knee Amputation	3	2
Above knee amputation	0	1
Minor amputations	4	5

Nephrolithotomy	0	6
Pyelolithotomy	0	4
Cholecystectomy	0	4
Splenectomy	0	1
excision of dermoid / sebaceous cyst	10	5
Split skin graft	0	4
Cystolithotomy	2	2
Hemimandibulectomy	0	7
Hemiglossectomy	0	3
Laryngectomy	0	1
cystectomy	0	1
Hysterectomy	0	4
LSCS	0	4
Fasciotomy	2	6
Hemicolectomy	0	3
Triple bypass (GJA + choleccystojejunostomy + jejunostomy)	0	2
Gastrojejunostomy	0	4
colostomy	0	5
colostomy closure	0	7
urethroplasty	0	3
Tracheostomy	0	1
gastrectomy total	0	1
partial gastrectomy	0	2
open prostatectomy	0	3
Modified radical mastectomy	0	6
fibroadenoma excision	4	
Open hepatic abscess drainage	0	2
Hydatid excision hepatic	0	2
Exostrophy bladder. Primary wall repair with gastric augmentation	0	1
VP shunt	0	3
ICD insertion	0	2
Craniostomy	0	2
Intestinal obstruction	0	9
Gastric/Duodenal perf repair (Peritonitis)	0	3

Observed: TEF Esophageal atresia(fistula excision + primary anastomosis), eloessers flap , vp shunt, urethroplasties, decortications, gastrocystoplasty, TURP, TEF repair, NISSEN fundoplication, cystoscopies, bronchoscopic removal of FB, hydatid cyst excision, APR, Exomphalos major, gastroschisis

4. Number of teaching seminars/presentations etc.

Regular academic sessions are planned thrice a week. Two days are marked for conducting sessions on various topics by Faculty members, visiting doctors and senior residents. One of the residents presents a long case in the third weekly session.

Topics that were handled last year include:

Measuring Equity, Bowel Preparation, Polyarthritis, TBI/Concussion, Basic Ventilator Management, Disorders of Coagulation, Heat-Related illnesses, Respiratory Failure, Acute scrotum, Acute breathlessness, Wound Healing, Acute dyspnea, Hands on ventilator management, OB trauma, Depression Treatment, Advanced Life Support in Obstetrics, Syndromic approach to STI, Back Pain, Low resource medicine, Anemia in Pregnancy, Introduction to Medical Storytelling, Medical Complications of Pregnancy, Sickle Cell disease in Pregnancy, Breathlessness in Pregnancy, Malnutrition, How to dose diuretics, Vaccine preventable diseases, Basics of Palliative Care, Severe and Life-Threatening Asthma, Labor Protocol/Update on Diabetes, Hearing Loss, Action-based research, ENT Emergencies, Acute Kidney Injury, Vertigo, Ventilator Management, Hydatid Disease, Diabetes Complications, Tobacco Cessation, Oral Cancer, The Cranial Nerve Exam, Abortions, Principles of Epidemiology, Puerperal Sepsis, Management of Acute Stroke, Cervical Cancer, HIV in Pregnancy, Pelvic organ prolapse/Incontinence, HIV in Pregnancy, Chronic Pain, Microbiology Sample Collection, Infective Endocarditis, Chronic Otitis and Sinusitis, Chemo care at JSS/ NFHS 4/ Antibiotics- Rational use, approach to paraplegia, Neonatal resuscitation/neonatal life support, use of BACTEC in low resource setting and Lab investigations at JSS, Male sexual dysfunction, Approach to a child with congenital heart disease, Neonatal examination, Upper GI bleed, Neonatal examination, Approach to a child with respiratory distress, Approach to a lady with breast lump, Approach to a child with respiratory distress.

Along with these, the social and rural aspects of healthcare were also discussed. Some of the areas addressed are: Structural Violence, Cost of care and payment at JSS, Structural Violence: Brainstorming Solutions, Health System Improvement Via Case Analysis, Program Updates on Diabetes and Chemo, QI /Rational use of antibiotics, Discussion regarding Communication and counselling in critically ill patients.

In addition to these sessions, the residents also make presentations. In the last year seminars were given on Rheumatoid Arthritis, Gastric Cancer, Burns, Adverse effects of cancer chemotherapy, Hypovolemic shock - Causes & management, Vacuum delivery, Abnormal uterine bleeding, Alcohol-Management of acute complications, Management of Meconium aspiration, Diet in Diabetes, Fluid & electrolyte management in a surgical patient.

There have also been many faculty and experts including members from FOJ UK who visited JSS last year. Residents and other doctors have had the opportunity to interact and learn from these experts as well.

5. Kind of procedures undertaken by trainee both supervised and unsupervised including minor ops like I&D etc.

This is already included in the operative log in point 3.

6. Faculty trainee ratio etc.

Currently there are 2 residents, supported by 1 fulltime Junior Faculty, 1 fulltime Senior Faculty and 2 visiting faculties.

7. Any research thesis writing

As part of the residency program, each resident has to conduct a thesis. The resident thesis topics are as below:

- a. A prospective study of prevalence of HER2/NEU overexpression in primary gastric adenocarcinoma in central India and its relationship with Lauren classification and the site of cancer – Dr. Dipankan Jana
- b. An audit of SSI in a Rural Hospital in Central India – Dr. Pranav Dhamdhare

8. New plans for the coming year for better teaching/training

We expect 2 new junior residents to join the program soon. The national board allotments are in final steps, however there may be delay in actual joining due to evolving COVID situation. We plan to build a rotatory program for classroom and hand on teaching as the number of residents increases further.

9. Breakdown of surgical/Gynaecological/obstetrics procedures undertaken for 2019-20

Type of Surgery	Count
CTVS Surgery	20
General Surgery	996
General Surgery; CTVS Surgery	1
General Surgery; Oncosurgery	1
General Surgery; Orthopaedic Surgery	32
General Surgery; Urosurgery	3
Gynaecological Surgery	203
Gynaecological Surgery; Obstetric Surgery	1
Gynaecological Surgery; Oncosurgery	13
Gynaecological Surgery; Urosurgery	7
Neurosurgery	16
Neurosurgery; Oncosurgery	1
Neurosurgery; Paediatric Surgery	2
Obstetric Surgery	233

Oncosurgery	136
Oncosurgery; Urosurgery	4
Orthopaedic Surgery	23
Orthopaedic Surgery; Paediatric Surgery	2
Paediatric Surgery	236
Paediatric Surgery; Oncosurgery	2
Paediatric Surgery; Plastic Surgery	5
Paediatric Surgery; Urosurgery	37
Pain Management	3
Plastic Surgery	34
Plastic Surgery; Oncosurgery	1
Urosurgery	209

An exhaustive list with details of procedures can be provided, if required.