

PN-AAU-661

3880050

1 AM. 44'45'

PROCEEDINGS OF THE NATIONAL CONFERENCE

INFORMED CONSENT &
SERVICE WITH QUALITY

DACCA MAY 17 - 18, 1981



**Bangladesh Association For
Voluntary Sterilization**

4670

USAID/Dhaka Staff
Reference Library

DUPLICATE



President Justice Abdus Sattar in his inaugural address.



President of the Republic (extreme right) visited the Model Service Center of VSC.



A partial view of the distinguished guests and Participants.

TABLE OF CONTENTS

Foreword

Voluntary Surgical Contraception : The Changing Scene

—Dr. Ira Lubell, Former Executive Director, IPAVS, USA

Revised Analgesia & Anaesthesia Practice in Minilap

—Dr. Sultana Begum, National Medical Director, BAVS

Minimum Medical Standard for Voluntary Sterilization Services

—Dr. Azizur Rahman, President, BAVS

Training of Health and Family Planning Manpower

—Col. M. Hashmat Ali, Superintendent, Dacca Medical College, Dacca

The Role of Sterilization in Primary Health Care

—Donald H. Minkler

Post-Operative Care and Long-term Follow-up

—Dr. M. A. Quader, Project Director, BAVS Khulna

Sterile Technique

—Prof. Nirza M. Islam, Professor of Surgery, Dacca Medical College, Dacca

Counselling and Informed Consent

—Prof. A. B. Bhuiyan, Associate Professor, OB/GYN, Rangpur Medical College

জনসংখ্যা নিয়ন্ত্রণের অক্ষয় বক্ষ্যাকরণ কর্মসূচীর গুরুত্ব ও ভূমিকা

—ডাঃ নাগিস আক্তার, পরিচালক (সার্ভিস ডেলিভারী) জনসংখ্যা নিয়ন্ত্রণ এবং পরিবার পরিকল্পনা দফতর।

Examination and Selection of Persons for Permanent Sterilization

—Prof. S. M. Mukhlesur Rahman, Narail, Jessore

Maintaining Asepsis in Voluntary Sterilization

—Brig. K. M. S. Jinnat, AMC

Equipments and Supplies Necessary for Voluntary Sterilization Procedures

—Col. L. A. Khan, D. G. (IMP) P. C. F. P. D.

Patient's Monitoring and Cardio-Pulmonary Resuscitation (CPR)

—Prof. A. Quader, Azimpur, Dacca

Manual for Sterilization Operations

—Dr. Shafiqur Rahman, Director, Bio-Medical Research & Training, NIPORT

Program Highlights of Workshop.

FOREWORD

During the Second Five-Year Plan, the Government of Bangladesh has considered Voluntary Sterilization as the priority method in population control efforts. Although sterilization as a program method has existed since late 60s, it did not receive the importance as at present. However, considering that, of the 17 million eligible couples, about one-half qualify for sterilization, it is itself a sufficient ground to emphasize the sterilization procedure

Aside from the Government sterilization program, a few voluntary agencies are also involved in voluntary sterilization. The Bangladesh Association for Voluntary Sterilization (BAVS) is the premier voluntary organization engaged in sterilization services since 1975. Currently, BAVS is performing about 4 000 sterilizations per month, which includes both tubectomy and vasectomy.

As a part of BAVS policy, the training of clinic personnel, including surgeons, is a continuous process. The training is imparted on various facets of clinic management to ensure quality services. All BAVS surgeons have by now been trained on the New Anaesthesia Regimen, and are now practising the Minimum Medical Standard as required by IPAVS.

The emphasis on BAVS quality services aims at safer service delivery, as well as client satisfaction. The satisfied clients are a constant source of the popularity of voluntary surgical contraception.

BAVS quality services have also attracted the attention of the Government. From time to time, the Government physicians involved in sterilization services have received orientation training at BAVS. However, the government felt the necessity to fully orient the Government surgeons on voluntary sterilization procedures and to be abreast with information to ensure safer services.

To this end, the Government entrusted with BAVS the responsibility of organizing a National Conference on voluntary sterilization to be participa-

ted by the Government physicians engaged in sterilization services throughout the country. Styled as Voluntary Sterilization—'80s : Informed Consent and Quality Services, it was held on 17-18 May 1981 at Sonargaon Hotel in Dacca. Participated by over 400 Government physicians including BAVS surgeons. The conference was also attended by representatives from Nepal, Thailand, Malaysia, India and USA, besides International agencies like World Bank/Dacca, IPAVS/New York and Dacca, FPIA/Dacca, and USAID/Dacca.

The proceedings of the conference will be of utmost significance to all physicians engaged in voluntary sterilization. This offers information, as well as working views emanating from the mini-workshops, which will help orient a surgeon to be a better surgeon. Finally, with aims at client satisfaction, it will further the cause of Informed Consent and Quality Services.

We hope that the proceedings would serve as a reference source for surgeons associated with quality sterilization services.

Dr. Azizur Rahman, President, BAVS
& Conference Director.

VOLUNTARY SURGICAL CONTRACEPTION : THE CHANGING SCENE

Dr. Ira Lubell

It gives me great pleasure to be here today. I recognize many of my fellow revolutionaries in the audience and I salute you. Your courage, dedication, and foresight have helped shape the "Reproductive Revolution" of the 20th century. I refer, of course, to voluntary surgical contraception.

In my country we have an expression—"Numero Uno"—freely borrowed from another language, but used in the U. S. as an admiring recognition of something that is undeniably in the Number One position. That describes voluntary surgical contraception today.

These are the most recent estimates available on the use of surgical contraception. The largest growth in use is occurring wherever voluntary surgical contraception is included with other family planning methods as part of a full spectrum of fertility care and management. Our experience has shown that the largest number of acceptors are those who are already using other methods, but this is by no means all. Many programs are maturing and are reaching many more acceptors beyond the first circle of the contraceptively committed. On a worldwide basis, an estimated 95 million couples are now protected by surgical contraception. The upsurge in use since 1970 clearly indicates that major alterations have occurred in religious, legal, social, and political attitudes, not the least of which have been those changes in the attitudes of physicians themselves. Where once a doctor would search for medical indications for surgical contraception, today he readily recognizes the social, health, economic, and demographic indications.

Where once the medical establishment put restrictions on surgical contraception, such as the number of living children, spousal consent, age, and so forth, now it is affirming the individual's right to control his or her own fertility without the artificial rules that so often turned a blind eye to individual needs. In addition, we now press for the right of all

Dr. Ira Lubell, M. D., M. P. H. Executive Director,
Association For Voluntary Sterilization, IMC, New York, U.S.A.

persons to have access to information about all family planning methods, and the right to choose the method best suited to individual needs.

We have also made very real progress in recognizing that the social and health risks of grand multiparity are, in fact, a medical indication for surgical contraception. This was one of the major recommendations that came out of the Fourth International Conference on Voluntary Sterilization in 1979. In short, we see that surgical contraception is a basic health care component in fertility management. All of us have worked hard to gain for it a place of primary importance in family planning programs around the world.

The Barriers Continue to Fall.

Religious and legal barriers—almost always translated into political barriers at the national level—were once considered powerful obstacles to the introduction of voluntary surgical contraception in numerous countries around the world. Yet, sweeping changes are occurring on both fronts since the movement began in the early 1970's.

Religious thought has proven to be flexible enough to accommodate the new concepts, and the practical realities of human need for fertility care have overcome much real or presumed religious objections.

In Moslem countries, for example, voluntary surgical contraception has gained acceptance and continues to make strong headway with the clarification of religious laws and opinions on family planning. Nearly all Hindu and Buddhist countries now have family planning programs that include surgical contraception as a basic component.

It is not surprising, therefore to find that countries such as Colombia and El Salvador, though predominantly Catholic, or India though largely Hindu, or Bangladesh and Pakistan, though Islamic, are but a few that now permit voluntary surgical contraception in spite of traditional religious constraints. In fact, all of these countries have large family planning programs that include surgical contraception.

The Legal Battles.

Nowhere has change been so noticeable as on the legal front. In the early 1970's, we were faced with a Gordian knot of unclear laws, articulated legal concepts, laws that were silent altogether yet ambiguous enough to pose thorny legal problems, and in at least one case (West Germany) a

law that apparently confused sterilization with castration. In nearly all countries, those laws that were considered applicable to voluntary surgical contraception were contained in the criminal codes. (1) Today, only four countries regard surgical contraception as a criminal act: Burma, Spain, Somalia, and Turkey. (1)

The good news is this: the majority of the world's population has now gained the legal right to voluntary surgical contraception (1). This means it is legally available in most developed countries of Western Europe, the U. S., Canada, Japan, and in many developing nations of Asia, Latin America and Africa have similar situations. The legal picture is generally mixed, but services are growing as demand mounts and this is especially true of Latin America where programs have been established longer. Generally, those countries based upon the English common law system do not restrict voluntary surgical contraception, whereas those with a French (or civil) law system appear to restrict or limit services (1). At present, 27 African countries have governments who do not officially support family planning activities (2). Nevertheless, this does not mean that these countries may not have expressed interest in establishing surgical contraception programs.

Voluntary surgical contraception is legally ambiguous but not prohibited in the civil law countries of continental Europe (France, Belgium, Austria, Luxembourg, Greece); in Latin America (Peru, Chile), in the Socialist countries of Eastern Europe, in countries governed or influenced by Islamic law, and in Francophone Africa (1). This kind of ambiguity has not prevented services from becoming available in Latin America, Western Europe, and other areas, but it has had a chilling effect in some countries. We expect the development of programs to be inhibited until more laws are clarified or new statutes are enacted.

In the Middle East, surgical contraception is still illegal in Turkey, but it can be performed for medical reasons. Iran liberalized its law in 1976 so that married persons over 25 years of age and unmarried persons over 30 may have surgical contraceptions on request. The legal status is unclear in Saudi Arabia, Syria, Algeria, Egypt, Morocco, and Afghanistan, but Egypt and Morocco have already made good progress in providing services in spite of the legal ambiguities (1).

I am pleased to tell you that no laws were passed during the 1970's that prohibited voluntary surgical contraception, although there are still many ambiguous statutes on the books. The general picture today is that

most of the world regards voluntary surgical contraception as a medical matter between doctor and patient.

Official Government Positions.

There are 35 countries (with populations in excess of 100,000) who have official policies to reduce population growth and another 30 countries officially support family planning activities for other than demographic reasons (2). Excluded from this count are those countries with low fertility rates such as Argentina, Uruguay, Canada, the U. S., Australia, Great Britain, and most of Europe, the Soviet Union and Japan.

Cultural Factors.

Cultural factors might best be gauged in terms of changing attitudes and perceptions that result in changes in practices. Certainly, the changes in legal attitudes we've just reviewed are clear evidence of significant alterations in the cultural climate.

We are all familiar with the intense efforts over the past decade to educate leadership groups and the general public to the prime role of voluntary surgical contraception in fertility management. By any yardstick, these efforts have been extremely effective, particularly in the case of female procedures which now surpass male procedures by a wide margin. In fact, there has been some concern expressed among the international health community that vasectomy may be in danger of becoming a neglected stepchild.

Even in the Latin American countries where "machismo" or male pride in sexual and procreative ability was presumed to be an obstacle, vasectomy became acceptable to men once they understood its benefits. Today, we have a similar problem in Africa and the middle East countries. Much work remains to be done in this region to educate men to the advantages of surgical contraception and to the necessity for assuming a fair share of the reproductive responsibility.

The most powerful endorsement in every country has been word-of-mouth of satisfied users, and this holds true for both men and women. Word-of-mouth advertising was especially effective in the successful vasectomy programs of Latin America and helped to overcome the 'macho' resis-

tance. Satisfied users have been our greatest boosters all along and, together with good information and education programs, have helped tremendously in furthering the use of surgical contraception.

Informed Clients.

"Voluntarism is now widely recognized as crucial to the continued success of sterilization programs." (1) In all IPAVS programs, we put very heavy stress on sensitive and honest counselling. The entire health team is trained to be perceptive to the needs of their clientele and to make sure that acceptors of surgical contraception are fully informed about all methods of fertility management, including sterilization. I cannot emphasize this concept too strongly. The potential acceptor, or spouse, or friend, who goes away from the clinic with a distorted picture, insufficiently informed, can do as much harm as the satisfied user can do good.

We have also found that there is a need to give acceptors written instructions in the event of complications from any technique. We have seen cases where women have developed post-surgical problems and have gone to physicians in their communities for help. These physicians failed to recognize what a sterilization procedure was and thus failed to properly diagnose the problem. In one case, death occurred because the woman's doctor did not know what a modern laparoscopic procedure entailed. Need I say that we also need to bring many physicians up to speed on what is happening in modern fertility care and management?

Program Status.

I want to offer some brief highlights on voluntary surgical contraception programs in selected countries around the world. Asia has long been the undisputed leader among regions, and India and the People's Republic of China the leaders among Asian countries. India was the first to incorporate voluntary surgical contraception into a national family planning program in the 1950's, and has since that time provided approximately 31 million surgical contraception procedures. An estimated 20% of all married women of reproductive age are now protected by surgical contraception in India (1). The success of the People's Republic of China is often overlooked by leftists around the world who tend to portray family planning and voluntary surgical contraception as an imperialistic plot. But the People's Republic has provided approximately 36 million surgical contraception and is now advocating the one-child family.

Other highly successful programs have long been underway in Bangladesh, Pakistan, Philippines, Singapore, Thailand, Sri Lanka, and South Korea. Other countries such as Indonesia and Nepal have developed programs in the past several years. Indonesia is now providing services both inside and outside of the national family planning program, and Nepal within its national program.

In the USSR and Eastern Europe, surgical contraception is rarely performed, but in Western Europe and Great Britain, voluntary surgical contraception has become increasingly popular. Approximately 10 million couples in Europe rely on it today.

In Latin America, Mexico is an outstanding example of a country where a complete revolution in governmental health practices occurred. Now most large governmental hospitals offer elective tubal ligation where once it was virtually unmentionable just a few short years ago.

Programs vary from country to country, but Latin America has come a long way since 1970 in provision of services. Surgical contraceptions performed by private physicians are increasingly available in countries such as Brazil, Chile, Ecuador, Peru, and Venezuela. It is widely available in Colombia, El Salvador, Guatemala, Costa Rica, Panama where both male and female procedures are performed. In fact, data (1) indicate that usage is so high in Costa Rica, Dominican Republic, El Salvador, and two states of Brazil that 20% of married women of reproductive age rely on voluntary surgical contraception. In Panama the figure is 30%.

Female methods predominate in Puerto Rico—the forerunner among all countries as early as the 1940's—in the Dominican Republic, and some Caribbean islands such as Cuba, Dominica, Grenada, Haiti, Jamaica, St. Lucia, Trinidad, and Tobago.

Voluntary surgical contraception continues to be widely available in the U. S. and Canada. The U. S. now accounts for approximately 13 million procedures, with an annual average of 1 million.

The Middle East and North Africa have only recently begun to look at voluntary surgical contraception as a viable method of family planning' but the pace of change is accelerating, particularly in Egypt and in Tunisia which was the first North African country to establish a national program and is rapidly becoming a regional leader in laparoscopic training. Egypt and Morocco both have introduced female surgical contraception into their

national programs, and a number of countries in the region are making the initial steps toward establishment of programs.

Even though the use of voluntary surgical contraception in Africa is the lowest worldwide, female services are being expanded in Kenya, Mauritius, Nigeria, Senegal, and the Sudan. A small number of procedures have been reported in Botswana, Ethiopia, Ghana, Uganda, Tanzania, and Zambia. South Africa now has a national family planning program that includes surgical contraception services.

In Oceania, Fiji has been the pacesetter, with 42% of all contraceptive users relying on voluntary surgical contraception. Western Samoa provides female services in its family planning programs, and in Australia and New Zealand, male and female services are obtainable mostly in urban locations. Over 4% of urban women now rely on surgical contraception.

The Unfinished Tasks.

Even though we have achieved remarkable successes during the past decade, our job is far from complete. We must continue to press government and professional leadership for change, especially in those countries where services are unavailable or only minimally available.

To be sure, the source of many governments' interests in family planning springs from their increased difficulties in providing for basic human needs in the face of rapidly growing populations. Nevertheless, many are also coming to realize that fertility management must be an essential element of economic development and social improvement.

In the developing world, in country after country, the population profile shows that the average age is becoming increasingly younger, and that large numbers of young men and women are entering the reproductive age group each year.

One does not need to be a soothsayer to foresee that there will be significant changes in the fertility care and management needs of populations that will begin childbearing at younger ages. We may well see both an escalated demand at younger ages for surgical contraception, and a drop in the average age of "older" multiparas.

Government-supported family planning programs must continue to be developed and expanded in intensity and geographic scope, vigorous

programmatic thrusts must be launched not only to stimulate the diffusion of family planning among reproductive age couples but also to favorably influence the attitudes of the rising younger generation toward the use of all family planning methods.

Male Surgical Contraception.

Since the introduction of viable female surgical contraception options, we have been rightfully and sensitively concerned with delivery of services to women on a priority basis in most programs. Our humane concern for the urgent problems of multiparity and unwanted pregnancies may have led us to neglect or give insufficient attention to programs for males.

The time has come for a concerted campaign to get the male programs moving again. We must make vasectomy as acceptable and available to men as laparoscopy and minilap are to women. When we speak of "full spectrum" family planning, that spectrum must include vasectomy services also.

I recognize this is a large order, but we've done it before and we can meet the challenge. Certainly, we have a formidable educational job in changing male attitudes, yet we've proven that perceptions and values do change. I have already cited the Latin American experience. The People's Republic of China is now working in this area by emphasizing the value and significance of female children. This is a positive step toward deemphasizing the paternalistic attitudes that tend to be cultural barriers to the acceptance of male surgical contraception. India, of course, has long been the world leader in offering vasectomy services.

Conclusion

Many factors have influenced the acceptance and use of voluntary surgical contraception. In the countries of the developing world the problems are acute: shortages of trained manpower, lack of health infrastructures, inadequate communications, lack of transportation, and all the attendant ills of inadequate funds to mount programs. In spite of these problems much progress has occurred in a very short time, yet time is rapidly running out for millions who are still without access to surgical contraception services.

We physicians are the key to the introduction and expansion of services. We must continue to lead, to advocate, to proselitize, to organize, lobby

counsel, and guide. And when we come to the close of this second decade of the voluntary sterilization movement, we must be able to look back with justifiable pride on job well done.

Ladies and gentlemen, I thank you for this opportunity to speak with you today. and I wish you well in the work that lies ahead...

REFERNCES

1. Stepan, Jan. 1981. **Population Report on Sterilization Law ; A Decade of Change.** Unpublished draft ms.
2. Nortman, D. & Hofstadter, E, 1980. **Population and Family planning Programs : A Compendium of Date through 1978.** 10th edition. The Population Council. N. Y.

**Estimated Number (in Millions) of Couples Controlling Fertility by
Voluntary Surgical Sterilization, by Country
Continent, and End of Year**

<u>Country or Continent</u>	<u>Year</u>			
	<u>1970</u>	<u>1975</u>	<u>1978</u>	<u>1980</u>
China	4	30	36	36
India	7	17	22	23
Asia (excluding China, India)	1	2	4	6
United States	3	8	12	13
Europe	3	4.5	10	10
Latin America	1	2	4	5
Canada	0.5	0.5	1	1
Africa	0.5	0.5	1	1
Estimated World Total	20	65	90	95

Source ; Green V78, Cutler R79, Lubell & Frischer I80

**Percentage of Married Women of Reproductive Age Using
Contraceptives and Using Sterilization (Male or Female)**

SELECTED COUNTRIES

Country & Year	All Methods	Sterili- zation
Fiji - 1978	38	17
India - 1979	23	20
Korea, Rep. of - 1979	54	20
Singapore - 1978	71	22
Sri Lanka - 1977	41	18
Taiwan - 1979	66	16
Thailand - 1978	53	16
Brazil :		
Paiau State	31	15
Sao Paulo State	64	16
Costa Rica - 1978	65	14
El Salvador - 1978	34	18
Panama - 1979	61	30
U.S. - 1976	68	19

**Source : Draft ms. of Population Report on Sterilization
Law ; A Decade of Change. 1981, Jan Stepan**

REVISED ANALGESIA & ANAESTHESIA PRACTICE IN MINILAP

Dr. Sultana Begum

Miniap is the most widely performed operation all over the world. In Bangladesh more than ninety-nine percent of the female sterilization is performed by mini-laparotomy. The popularity of the minilaparotomy is due to various obvious reasons. It is almost an out patient procedure. It is done under local anaesthesia. Hospitalisation is minimum. Last year the nation has performed two hundred thousand operations. We in BAVS have done twenty-five percent of the national figure. Since the inception of BAVS in February '75 we have performed one hundred thousand Voluntary Surgical Procedures.

In spite of many adversaries and performing operation in difficult situations, the complication is minimum. In Bangladesh sterilization programme every surgeon is performing minilaparotomy using systemic analgesia and local anaesthesia. But I do not know of any uniform standard regimen which is practised all over the country. But I know that for premedication, Atropine 0.6 mgm., Promethazine 50 mgm., Meperidine 50 to 100 mgm, mixed together is given intra-muscularly thirty minutes before the operation. In the operation theatre dose of Diazepam varies from twenty to thirty milligrams intramuscularly or intravenously. In addition some people also use Meperidine. At places Largactil is also used. In fact, what I want to say, is that, great variation of analgesia practice does exist.

When I started the minilaparotomy operation under local anaesthesia, I used, for premedication Inj., Atropine 0.6 mgm., Inj. Promethazine 25 mgm., Inj. Meperidine 25 mgm. mixed together in a syringe, intramuscularly, almost an hour before the operation. In the operation theatre Meperidine twenty-five milligram and Diazepam ten milligram was given intravenously. Some surgeons give much more than this. This needs proper monitoring, because in most cases this regimen produces transient general anaesthesia and a very

National Medical Director, Bangladesh Association for voluntary sterilization.

difficult situation is created, because almost all the surgeons are believing they are operating under local anaesthesia, when in fact they are operating under general anaesthesia.

General anaesthesia is safe, because respiratory airway is maintained and patient is monitored. But using large amount of sedation producing transient general anaesthesia and not monitoring and maintaining clear airway, obstruction, apnoea, from direct depression on cardio-respiratory and other systems may occur. Here I would tell a little factual story. Two friends were performing minilap with heavy analgesia, and usually what happens in this sort of situation patients are heavily sedated, they become involuntary. With slightest pain they shout, they struggle, moving their extremities and whole body. What is done? Many of us have observed that hands of the patients and feet are tied down with ropes and bandages, to restrain the patient. My story reappears. Those two friends after giving large dose of diazepam and pethidine, were operating and finding the patient very till one friend was telling the other, "Look! the medicine is working miraculously, the patient is very co-operative!" Indeed the patient was co-operative and still because they were operating on a dead patient! We in BAVS Dacca clinic had our first casualty in O. T. after thirty three thousand cases and none since then! In Bangladesh there were several deaths during the last few years. Many of the deaths were investigated, it was evident from those investigations that analgesia overdose is one of the main cause of death along with infection and injury.

My discussion is today, how we can try to prevent those deaths. As I am talking on analgesia and anaesthesia, I will limit my discussion on these topics,

This anaesthesia overdose deaths made us concerned and all people involved in the National Family Planning program decided to do something about it. The idea is to develop a regime which can be used all over the country in the National program which will minimise the risk of complications and deaths. This became more important, because most of our surgeons are young doctors, who are the most important component of our national sterilization program. They are ill equipped and untrained to deal with these complications. USAID, PCFPD, & BAVS, worked together with an outside consultant and developed a regimen, which is as follows :-

Pre-medication: Seduxen 10 mgm. orally forty five minutes before the operation. Dose is 5 mgm if the patients weight is below 75 mgm.

Operation Theatre Analgesia : Inj. Atropine 0.6 mgm., Inj. Meperidine 25 mgm., Inj-Promethazine 25 mgm. All 3 mixed together in a syringe intravenously very slowly and cautiously.

Local Anaesthesia : Lidocaine 10% or 2% infiltrating the operation site, never more than twenty ml. of 2%. An extensive trial has been given using this regime for the last eight months at BAVS Dacca Centre. We have performed more than thousand cases under this regimen over the last. Our findings are :—

- 1) Patients are not in deep sleep.
- 2) Patient is co-operative during the operation.
- 3) Patient can walk in the O.T. in almost all cases.
- 4) Patient can walk out of the O.T. in almost all cases.
- 5) Post operatively they are much awake and co-operative during the critical period.
- 6) Patients do not vomit or urinate involuntarily in the bed.
- 7) Most important thing is that in the nex morning they are much fresher, they do not have hang over and they walk freely.

DISADVANTAGES :

Many people do not like this regime because this needs patience and perseverance. One cannot hurriedly start the operation as soon as the patient is in the O.T. Surgeon and the team have to be artist not butchers ! They have to use all their seven senses and plenty of verbal and environmental analgesia. Even major operation have been done under only environmental and verbal analgesia.

Warnings ! ! !

Whatever, may be the drugs we use, the responsibility of the team is to examine the patient, thoroughly regarding the fitness and doses of the drugs. Check every medicine, before use. Mis-identification and use of wrong drugs can always happen. I cannot forget the incident of accidentally injecting 1 in 100 adrenaline in mistake for local anasthesia in four patients who survived, but we had a half of a time on that 18th. of April, 1978. In other cases one might not be so lucky. It is obligatory, when one patient gets complication and even though you have lined up several

other patients. One should stop operating further, till the patient has recovered from the complications and the cause of the complication is detected and rectified.

Our monitoring sheet attached herewith. One should be very familiar with local customs. In spite of strict six hours starvation of food before operation we have found that some of them have betelnuts, hidden somewhere inside the oral cavity. Proper examination can only detect these types of pit falls. Our patient monitoring sheet follows :—

Conclusion : During operation, after opening up of peritoneum, five milliliter of local anaesthesia introduced inside the peritoneal cavity. Thus in case of any complication like bladder or intestinal injury or incidental findings of adnexal pathology needing further surgery we have found that general anaesthesia had never been necessary,

L.A. has to be minimal, not only to prevent toxicity, allergy or injury but also to prevent infection. The operative area has to be painless during operation but afterwards, some pain and tenderness has to be expected. No tenderness might denote danger. After six weeks there should be minimal pain and after eighteen months none !

Whatever has been said in this paper is more than hundred percent true as you can see for yourself in the film.

PATIENT MONITORING SHEET

This form duly filled up must be attached to the patients case sheet

DR. SULTANA BEGUM
National Medical Director

Admission Serial Number :

Date _____

1. Pre-medication

Time	Level of co-operation	Pulse	Temp	Resp.	B.P.	Lid reflex	Pupil reflex	Other reflexes, colour of skin, muscle tone etc.
------	-----------------------	-------	------	-------	------	------------	--------------	--

During premed.

3 minutes after.

Signature _____

2. Operation Theatre

Time	Level of co-operation	P	T	Resp	B.P.	Lid reflex	Pupil reflex	Skin Colour Hydration Muscle Tone etc.	Others
------	-----------------------	---	---	------	------	------------	--------------	--	--------

During analgesia

5 Minutes after

During injection of local anaesthesia

5 minutes after local anaesthesia

10 minutes after

15 Minutes after

At end of opn.

Counter Signature of Surgeon

Signature of Practical Anesthetist

3. Post-operative

Every 15 minutes for 1 hr then every 4 hrs. till discharge, in complication continuously.

Time	General Condition	Pulse	Resp	Temp	B.P.	Lid reflex	Pupil reflex	Skin Colour Hydration Muscle, Tone etc.	Others	Signature
------	-------------------	-------	------	------	------	------------	--------------	---	--------	-----------

of Practical Anesthetist

Surgeon

MINIMUM MEDICAL STANDARD FOR VOLUNTARY STERILIZATION SERVICES

Dr. Azizur Rahman
President, BAVS

If a particular "Service" is not of good standard, it is generally not accepted by the consumers. This is a simple but very hard fact.

VSC is a service and an important one. We are all trying to "sell" it to the potential acceptors—our consumers. Naturally, if the VSC service is not of high quality, it will not be acceptable to the people. Apart from this very concept there are other aspects of VSC.

This is a surgical procedure. This is not a life saving procedure for an individual (but a life saving measure for a nation) so any slight danger to any body's life must be tried to be eliminated. We must provide ethical service, we must provide best possible service.

We all agree to this.

But how to do it?

To provide quality service one needs certain basic facilities, equipments, one must follow some basic medical principles, one must assure proper asepsis and antiseptics etc. What are these things? What are the different components that if you practice will assure quality and safety?

Well, there are many things, and we call it "MMS" for VSC.

What is this minimum standard? How do you decide on the "MMS"?

Well, I do not remember reading in any text book regarding the minimum medical standard for VSC for that case for surgery.

But what we have seen in this. Surgery or surgical operations are being performed in the big urban based hospital with certain facilities. In every big or small hospital, a special area is earmarked for surgery which is called "O.T Area". In this special area there is a different rule of games is practised than rest of the hospital. We know some or most of the role of the "O.T Area".

Now In the context of our National sterilization program and the importance of sterilization we are compelled to take this specialised surgical service out of those big institutions to the rural hospitals and rural sterilization centres is a bold and natural steps. But we must be careful in observing similar importance in service, in rules, in facilities, in equipment and all other related provision that we provide and practice for surgical service in big hospitals. These are simply can be termed Standards for surgical procedures. Unless these minimum medical standard are observed service cannot be called quality service.

In case of VS we would like to include other few aspects as a basic component of minimum medical standard.

- A:
 1. Proper client selection.
 2. Counselling and informed consent.
 3. Complete physical examination including P.V.
 4. Pathological examination.

- B.
 1. Clean operating room with acceptable environment
 2. Availability of minimum equipments
 3. Maintenance of strict asepsis and adequate sterilization of equipments.
 4. Judicial use of all medicines and injections.
 5. Watching the patient at all stages.
 6. Skillful surgery
 7. Post-operative vigilance
 8. Follow-up.

- C. Doctor and the Medical team must be knowledgeable to deal with all emergencies and basic emergency drugs and equipments must be kept ever ready during the operating session, including CPR.

It is very easy to narrate all these points in paper, but it is very difficult to develop, implement and maintain those on a national scale. But if we the providers of services believe this concept and try to practice, then it is only possible.

It is also of paramount importance that the authority who are responsible of making this provisions, must also be motivated to provide the facilities. But here again provision of the facility alone can not assure the minimum medical standard unless the person who are using the facilities are aware of his/her duties and responsibilities.

Our ultimate objective is to provide quality service, good service, & safe service, and if some one say and wishes to provide quality without this component, we cannot simply do that and he cannot provide quality service. For refreshing our memories the basic component of Minimum Medical Standard are repeated again.

A. Policy Guidelines :

In view of the critical and sensitive nature of the procedure the policies should be very clear and easily understandable. The policy should be to provide a prospective client with the following :

- 0 Information and Counselling
- 0 Informed Consent
- 0 Medical Screening
- 0 Pre-operative assessment
- 0 Standard Surgical procedure
- 0 Post Operative Care
- 0 Post-operative follow-up.

All the points of the guidelines are all equally important and strict adherence will be the motto of all concerned.

B. Facilities (Static)

The facilities which are discussed below needs to be emphasized that without which the minimum medical standard requirements cannot be fulfilled.

- 0 The clinic house should be well ventilated, brick built with concrete roof and floor.
- 0 Running water
- 0 Electricity
- 0 Adequate accommodation For :
 - a. Reception
 - b. Counselling Room (Separate for males and females)
 - c. Waiting Room (Separate for males and females)
 - d. Laboratory.
 - e. Physical examination room.
 - f. Pre-operative preparation room.
 - g. Scrubbing space
 - h. Sterilization room.
 - i. Operating rooms (The whole operation area should be fly proof).

- j. Recovery room.
- k. Follow-up space.
- L. Store
- m. Doctors and Nurses room.
- n. Office Room.
- o. Adequate toilets.

C. Surgical Procedure :

Surgical procedure should not be performed if the following are not complied ;

- 0 Well-Informed Client.
- 0 Informed Consent given.
- 0 Patient selection criteria fulfilled :
 - 1. Must be married.
 - 2. Age : 21 yrs, and above
 - 3. Having minimum two issues then the age of the last child must be over one year.
 - 4. Must be physically and madically fit.
 - 5. Psychologically sound.
- 0 The surgery should be performed in an adequately equipped operating room under aseptic conditions with appropriate surgical instruments, and performed by a competent physician.
- 0 Proper pre-operative preparations and pre-medication.
- 0 Meticulous use of drugs and local anaesthetic agents during operation,
- 0 There should be emergency equipments and drugs always available.

D. Equipments :

Following is the list of the minlmm equipments and emergency care requirements :

Basic Equipments :

- 1. Examining room.
 - a) Examining table
 - b) B. P. instrument
 - c) Stethoscope
 - d) Thermometer

- e) Weighing machine (Clinical)
 - f) Measuring Scale
 - g) Pelvic examination tray.
2. Laboratory :
- a) Haemoglobinometer and accessories
 - b) Urine examination apparatus
3. Sterilizing room :
- a) Autoclave
 - b) Sterilizer
 - c) Drums
4. Operation theatre :
- a) Operation table
 - b) Operation room light
 - c) Instrument trolley
 - d) Minilap kit
 - e) Vasectomy kit
 - f) B. P. Instrument
 - g) Stethoscope
 - h) Extra syringe with needles.
5. Recovery room :
- a) Patient cot with mattress, pillow, pillow cover, sheet and blanket,
 - b) B. P. instrument
 - c) Stethoscope
 - d) Thermometers.
6. Emergency Equipments and drugs :
- a) Airway (No. 2)
 - b) Manual suction machine
 - c) Resuscitator
 - d) Oxygen inhalation unit with 2 cylinders.
 - e) Ancillary instrument tray
(This will contain extra B.P. handle with blade, retractors, scissors, artery forceps, needle holders etc)
 - f) (Laryngoscope and Endotracheal tubes) optional for ;

g) Emergency drugs :

- Inj. Narcan
- Inj. Adrenaline
- Inj. Solu Cortef
- Inj. Sodium Bicarbonate
- Inj. Calcium Gluconate
- Inj. Dextrose in normal saline
- Inj. Dextrose in aqua
- Inj. 25% Glucose
- Inj. Lasix
- Inj. Aminophylline,

E. Medical Record Requirements :

A complete medical record must be written and maintained for each client who undergoes a voluntary surgical contraception Procedure. Alongwith all relevant matters including complications, deaths etc, are to be properly reported as and when required.

- a) Medical records
- b) Records storage
- c) Reporting

a) Medical Records :

1. Bio-data
2. Signed informed consent
3. Pre-operative assessment including medical history, physical examination and laboratory test results.
4. Surgical procedure notes.
5. Monitoring notes.
6. Medication detail with time.
7. Post operative and discharge notes.
8. Complications and outcome notes.

b) Records must be well maintained for atleast 3 years after discharge of the client.

c) Reporting :

1. Statistical reports
2. Complication reports
3. Death reports.

It is very difficult to adopt a system because changing of habit is a very difficult problem. But if we try hard, repeatedly, it would become easy and automatic and it will not be difficult then. Few examples below will emphasize my points.

- 1. A good physician or a good surgeon never undertakes any surgical procedure upon any patient without assessing the patient's complete physical-mental, bio-chemical state prior to surgery and thus experienced surgeons do it like a machine. It has become automatic to him by doing repeatedly for a long time.**
- 2. An experienced surgeon before operating a patient, examines the case sheets, goes through his/her clinical sheet inside to know about the premedication and clock wise the medicines before administration.**
- 3. An experienced surgeon will never enter the room without changing the cloths, properly masked and cap.**
- 4. A good surgeon does a good scrubbing of his hand before operation. But the scrub facilities must be provided, unless there is a good facility for washing hand inspite of the desire one cannot do the job properly maintain asepsis and sterility.**

There are so many other things that can be said such as wearing masks, caps, such as equipment sterilization, autoclaving which must be provided. But provision alone will not solve the problems. All the things must be in proper working order.

If you want to popularise VS more and more this quality of the service have to be improved and again the quality depends on Minimum Medical Standard and if we practise this minimum medical standard which is easily implementable in rural Bangladesh. This will assure not only the quality but also fulfill the medical and ethical question which is so very important to persons engaged in medical profession.

TRAINING OF HEALTH AND FAMILY PLANNING MANPOWER

Col. M. Hashmat Ali

1. Introduction :

The high risk to the life of the multi-parous women due to pregnancy in quick succession, poor state of health of their children and high infant mortality rate drew the attention of the kind hearted social workers in this part of the world in 1953. The concept of Family Planning for having a small family with a healthy mother and healthy children was thus introduced as a voluntary social service. The population of the land which is now Bangladesh was about 29 million in 1901 and 42 million in 1951. It rose to 76.2 million in 1974 and 92 million in 1980-81. The average growth rate was 1% between 1911 and 1921 and 2.8% between 1974 and 1977. The annual population growth rate was estimated at 2.65% during 1980. The CBR (Crude Birth Rate) was 48 during 1911-1921 the CDR (Crude Death Rate) during the same period was 47. During 1980 the CBR was estimated at 43.25 and the CDR 16.75. The current Infant Mortality rate IMR is estimated at 140 as against 150 during 1951. At the present rate of growth the population of Bangladesh will exceed 180 million by a little over the year 2000 AD.

Table-1: Population of Bangladesh from 1901 to 1980 source: Bangladesh Health profile 1977, statistical bulletin June 1977 and Planning Commission 1980.

Year	Population	Growth Rate
1901	29 million	
1951	42.0 million	1.3%
1974	76.2 million	
1977	82.7 million	2.8%
1980—81	92.0 million	2.65%
		as estimated by Planning Commission

Director General, Niport. (Now Superintendent Dacca Medical College Hospital),

Table-2 : CBR and CDR during 1911-21 and 1980 source :
Family Welfare Programme-India 1978 and Bangladesh Planning
Commission.

Year	CBR	CDR	G. R.
1911-1921	48	47	.1%
1980	33.25	16.75	2.75% (2.7%)

1. 1, To contain the steep rise of the population growth Govt. of Bangladesh gave adequate importance to this problem in the 1st Five year Plan and in the 2nd Five year Plan (1980-85). The projected economic development on the basis of the known and available resources cannot maintain the projected population of a minimum acceptable standard of living. Therefore, for Bangladesh (there is a compulsive need to bring down the total fertility rate from the prevailing 5.85 to 4.1 per women by 1985. It is expected to reduce the Growth rate from 2.65% to 1.7% by 1985 through deliberate, civilised and voluntary means. By adopting a revolutionary approach this will be attempted to be achieved by 1983.)

1. 2, The Bangladesh Fertility Survey (BFS-1975) found that women who are currently married and have no living children, in both rural and urban areas claimed that they would on an average like to have 2.8 children. The same survey found that more than 70% married women have 2 or more living children by 24 years of age. The Contraceptive Prevalence survey 1979 (result in the process of publication) shows that 99.92% approved Family Planning and 73.37 expressed their desire to prevent pregnancy.

Table-3 : Percentage Distribution of all over married women according to the number of children ever born by current age.

Current age	Number of respondents wighted	Number of children ever born					
		0	1	2	3	4-6	7
15	171	92.1	7.8	0.1	0.0	0.0	0.0
15-19	1205	40.1	40.2	15.5	3.3	0.8	0.0
20-24	1347	8.2	18.4	28.3	21.6	22.8	0.5
25-29	1108	2.6	3.7	9.3	18.4	55.9	10.1
30-34	791	2.5	1.7	4.4	7.3	49.1	34.9
35-39	672	1.6	1.2	2.9	4.0	33.7	56.7
40-44	626	2.7	2.2	3.8	4.7	24.2	62.2
45 +	495	2.7	3.4	4.5	6.8	26.6	56.1
All	6575	14.3	13.0	11.8	10.5	28.2	22.2

2. Policy and Strategy ;

In Bangladesh the Family Planning Programme is MCH based and multi-sectoral. The family Planning activities have been made an integral part of the Primary Health Care system in conformity with the Principles of Alma-Ata Declaration 1978 of WHO. The officials and the workers at the field level have been integrated to carry out the Health and Family Planning activities including MCH services using the available human and non human resources up to the optimum level. The community in the form of the Swanirvar Gram Sarker (self reliant village Government) has been involved in the system. Delayed married, pills, condom, IUD including copper-T, Injectables, sterilization and Traditional methods for contraception are being advocated for adoption on voluntary basis. The second Five year plan (1980-85) envisages to raise the current acceptors rate from the prevailing 12.66% (13% as per CPS-1979) to 38% of which 43% will come from the voluntary sterilization alone.

2.1. World wide place of sterilization as a method of contraception :

Due to some major alterations in religious, legal, social, political, safer and appropriate technology there has been a favourable climate for the growing utilisation of surgical contraception all the world over. The upsurge in the world wide prevalence of voluntary sterilization in the Family Planning Programme has been quite rapid. The number of couples using sterilization to prevent further pregnancy exceeds the number using any other method. It is estimated that world wide

out of 260 million users of contraceptives 90 millions have opted for voluntary sterilization.

Table—4 : World wide Estimate of the number of couples using contraceptive methods (in Millions)

Method	1970	1978
Sterilization	20	90
Pill	30	55
IUD	12	50
Condom	25	35
Other	60	30
Total	—	—
	147	260

Table—5 : Estimated number of couples controlling their fertility by voluntary sterilization by country and year (in millions)

Country or Continent	1970	1978
China	4	36
India	7	22
Asia (excluding China & India)	1	4
United States	3	12
Europe	3	10
Latin America	0.5	4
Canada	0.5	1
Africa	0.5	1
Estimated world	Total 20	90

2.2. Place of voluntary sterilization as a method of contraception in Bangladesh :

In Bangladesh with expansion of the sterilization facilities in various Hospitals, Health complexes and the clinics the voluntary sterilization has become rapidly popular. In 1977 an intensive Voluntary Sterilization campaign was launched in 155 sterilization centres for about Two months. 75828 sterilization operations were performed in this campaign. Subsequently

more centres and facilities were utilised expanding the services. The Contraceptive prevalence Survey (CPS-1979) found that there has been 2.4% cases of Tubal ligations as against 0.4% found by Bangladesh Fertility Survey (BFS-1975). Similarly the figure in vasectomy cases has come as 9% in CPS as against .6% in BFS. The contraceptive prevalence rate has been at 12.66% (12.7% . The method wise break up has been found for pill (40.3%), tubal ligation (26.8%), Condom (16.1%) vasectomy (9.8%) and others (7%). (The voluntary sterilization is in high popularity and there is an unmet demand for the service in Bangladesh as has been found in the various studies,

Table—6 : Projection of contraceptive Prevalence Rate in the Second Five Year Plan 1980-85 Document.

Method	1979-80 Base year%	1980-81 %	1981-82 %	1982-83 %	1983-84 %	1984-85 %
Sterllization	19	25	30	35	39	43
Oral Pill	40	40	20	25	25	22
Condom	34	25	25	25	21	19
IUD	6	6	8	8	8	9
Others	1	4	7	7	7	7

3. Feasibility of achieving the target of Sterllization :

The target set in the Second Five Year Plan Document is achievable as (a) the unmet demand is there (b) operationalisation of sterilization centres nearer to the people is possible (c) training and development of the manpower to provide high quality service with follow up facility is possible (d) Primary Health Care including MCH service is possible. From the foregoing text it could be seen that there is a world wide trend towards adoption of sterilization as a method of contraception and Bangladesh is no exception to it.

4. Availability of Sterllization Facilities :

An estimated number of about 400 sterilisation centres are in a functioning state in the state Hospitals, 290 thana Health complexes (to be raised to 356 by 1985) in the rural areas and in some selected Hospitals run by private and voluntary agencies. For providing sterllization services

to the out reach areas not covered by the Health complexes and Hospitals, Mini centres at suitable dispensaries clinics etc. can be organised. About 200 mini-centres may be established for the out reach people, The pre-requisite of these Mini-centres would be that the accommodation will have to be suitable for surgery. There has to be a FWV (Family Welfare Visitor) Compounder/M.A. (Medical Asst) on a whole time basis. The operating Physician may visit the Mini-centre with his team from the nearest Hospital or Health Complexes with pre-sterilised linens and equipments. There will not be any deviation from the standard of medical care. The doctor will have to remain available upto 48 Hrs. of the operation of the last case.

Table : Possible number of sterilization operations in the 400 permanent sterilization centres located in a 290 Thana Health Complexes, State Hospitals, Other selected Hospitals etc. and 200 Mini centres in the out reach areas not covered otherwise, ensuring suitable facilities and the presence of a trained doctor upto 48 Hrs. of the performance of the operation.

Assumption	Per Sterilization Centres performing operations 25 days a month (a) Ligation : Vasectomy 40:60	Mini Centres performing operations 5 days a month. (b) Ligation : Vasectomy 40 :60	Total of (a) & (b)
Very High	400 x 25 days x 15 cases = 1,50,000	200 x 5 days x 7 cases = 7,000	1,57,000
Moderately High	400 x 25 days x 10 cases = 100,000	200 x 5 days x 5 cases = 5000	1,05,000
High	400 x 25 days x 7 cases = 70,000	200 x 5 days x 3 cases = 3000	73,000
Moderate	400 x 25 days x 5 cases = 50,000	200 x 5 days x 2 cases = 2000	52,000
Moderately Low	400 x 25 days x 3 cases = 30,000	200 x 5 days x 1 cases = 1000	31,000
Low	400 x 25 days x 2 cases = 20,000	—	20,000
Very Low	400 x 25 days x 1 cases = 10,000		10,000

5. Training of Manpower to provide High quality voluntary Sterilization and associated services :

It is evident that there is a demand for voluntary sterilization and the physical facilities to perform these operations can also be organised. (The most important and the relevant factor is the manpower to produce the desired result by way of (a) motivation, (b) performance of surgery ensuring pre, inter,-post operative requirements, (c) follow up of the acceptors including their living children and (d) seeking support of the people. To attain these objectives extensive training and retraining is necessary.)

5.1. Quantum of manpower to be trained :

(In order to provide Primary Health Care to the the People in conformity with the state policy and the principles of the AIn a-Ata Declaration 1978 of WHO, the Govt. of the People's Republic of Bangladesh have integrated the manpower of the Health and Population Control Divisions. The number of this manpower including the supervisory staff comes to about 49,141. All of these manpower is required to be oriented with their jobs and given necessary training or retraining to develop skill in order to be able to carry out their duties proficiently.) Voluntary sterilization must not be considered in isolation and the training to perform this can not also be taken in hand singularly. All the supporting and the connected elements need be taken care of. (Accordingly plans have been drawn up to (a) Orient the H&FP manpower including the supervising staff with the motivational and Health-Care including FP and MCH activities through a course of 3 days duration at three levels up to the rural thanas. This will be completed by June '81, (b) A comprehensive training Programme has been drawn up to develop further skill in the field workers and the supervisory staff to perform the Health educational, motivational, Primary Health Care including FP and MCH service delivery. This retraining is expected to start from the 1st week of July 1981 and the 1st cycle will cover all the 49141 workers in two years time. After that it will be repeated to maintain a standard level of proficiency in them. Turing the training and there after adequate emphasis will be given to all methods of contraception so that the acceptor can chose any method freely. Stress will also be given on Health in totality and the care of the child in particular. The community will be involved. c) Family Welfare Visitors are being trained for 18 months to provide MCH & Primary Health Care.

5.2. Training of Physicians in sterilization procedure :

For the attainment of a high quality and correct training, standard training centres having competent trainers, equipments and clients are essential. Correct learning is not possible from a person having inadequate knowledge or wrong information about the technique of the job to be done. During the Intensive Voluntary Sterilization Campaign 1977 top most care was given to the training of the physicians and their supporting staff through selected training centres having competent staff. 75328 Sterilisation operations were performed in more than 155 centres by the trained physicians. The result was very satisfactory. Minor stitch infection responded to local application of antibiotics.

Table —8 : SHORT TERM POST OPERATIVE EFFECTS REPORTED BY CLIENTS OF INTENSIVE STERILIZATION CAMPAIGN 1977.

Presence of problem or side effect within one month	Vasectomy		Tubectomy	
	No.	%	No.	%
Yes	174	43.3	125	30.0
No	227	56.5	291	69.8
Not stated	1	0.2	1	0.2
Total	402	100.0	417	100.0

Problem/side effect				
Pain	76	18.9	51	12.2
Swelling	36	8.9	7	1.7
Physical weakness	44	10.9	12	2.9
Infection	14	3.5	39	9.3
Dizziness	4	1.0	11	2.6
Others	0	0.0	4	1.0
Not stated	1	0.2	2	0.5
None	227	56.5	291	69.8
Total	402	100.0	417	100.0

Depending on the past experience, 12 permanent Training Centres have been established in the reputed institutions. The number may be

enlarged if required. It has been estimated that 640 trained physicians are now available to perform sterilization operations in the periphery. This figure is exclusive of the drop outs and the transfer. A training centre usually takes three weeks to train a group of 4-6 fresh physicians in tubal ligation and vasectomy operations following the prescribed regimen of anaesthesia and analgesia. In certain cases the duration is required to be extended on individual variation and reasons. During the training process, motivation, counselling, clinical examination, with recording of the findings, screening of the clients, laboratory examination, pre-inter-post operative care and follow up are emphasised. Autoclaving and sterilization of the surgical appliances and the linens are also covered. The resuscitatory steps (CPR) are given special importance. Each Physician has to observe/assist 5 cases and perform 5 cases of tubal ligation and vasectomy during his training at the minimum. The surgical sterilization for contraception in Bangladesh lays adequate emphasis on vasectomy. A manual on the tubal ligation and vasectomy has been prepared embodying certain changes in the anaesthesia and analgesia regimen. The interval mini-laparotomy and vasectomy procedures in the various centres are performed under local anaesthesia. With the modification in the anaesthesia and analgesia, the previously trained physicians are required to be retrained in the new regimen. Necessary steps are in hand for a refresher and retraining.

5.3 Training of the supporting staff in the sterilization procedure and the centres :

During the IVSC 1977 (Intensive voluntary sterilisation campaign) as the entire country was not brought under the cover of the campaign, the paramedics (Family Welfare Visitors—FWV) were pooled and given training to assist, monitor, screen and follow up the clients. With the covering of the entire country on continual basis, the responsibility to train the Operation Theatre Assistants, client monitors, post operative room attendants, equipment attendants and other staff of the Health Complex, Clinic, Hospitals, etc. has been vested upon the surgeons of these centres. Selected paramedics have been trained/are being trained by the respective surgeons to remove stitches and follow up the clients at the clinics or at the home of the clients as may be convenient. During a follow up visit, the Health and Family Planning personnel would be required to take care of the operated clients and their children. Cases requiring medical attention may be referred to the nearest Family Welfare Centre (FWC) or Thana Health Complex (THC) or Hospital. The field workers

are also being oriented to establish linkage with the community leaders, the Swanirvar Gram Sarker (Self reliant village Govt.) for necessary assistance and support of the acceptors of contraception by sterilization or any other method.

6. Eligibility :

The physicians in the Govt service and also from private life are eligible for training in sterilization procedure and other methods. The paramedics are trained to assist the physicians.

7. Supervision and Surveillance of Training :

Specialists from the Medical Colleges, Institute of Post Graduate of Medicine and Research, consultants from Hospitals and other Institutions have been organised to visit the sterilization centres in the periphery within their respective area of duty on a regular basis in order to supervise the surgical standard, guide and coach on the spot if necessary.

8. Training on Administration and Management of the centres and the clients :

The concerned officials and the staff are trained to ensure proper flow of clients, management and administration of the centre to ensure adequate logistics, care of the clients, their children, record keeping accounting and reporting.

9. Monitoring and Evaluation :

The National Institute of Population Research and Training (NIPORT) is responsible to organise and monitor the training and retraining of the Physicians and other staff. Periodic evaluation is also under taken to determine the quality of the training of the physicians and other manpower deployed in this field.

10. Conclusion :

There is a rising demand for surgical contraception all the world over. In Bangladesh the demand is steadily mounting. About 400 sterilization centres are functioning in Bangladesh. 200 mini-centres can be organised for the out reach areas and this figure may be raised in phases taking precaution not to over stretch the resources which might

cause lowering of the surgical standard and care of the clients. The programme in Bangladesh is based on the concept of Primary Health Care (Health For All by 2000 AD) which includes MCH and Family Planning. The Programme gives importance to the training of the field workers, their supervisors and seeks community support as a pre-requisite. In order to avoid dilution and mistraining the training on sterilization procedure is imparted in a number of selected Training Institutes having competent trainers and facilities. The supporting staff are also trained. There is a system of supervision, surveillance and on the spot guidance in sterilization produced by experienced experts. The Govt. and the non Govt. physicians are eligible to receive training. The training activities are monitored by the National Institute of Population Training and Research (NIPORT). The Training curriculum deals with other methods of contraception, general health and MCH Care.

References :

1. Bangladesh Population Policy—1976
2. Bangladesh Fertility Survey—1975
3. Bangladesh 2nd Five year Plan (Draft)—1980-85.
4. Bangladesh Health profile—1977.
5. Bangladesh Statistical Bulletin June 1977.
6. Bangladesh Fertility Research Programme Technical Report No. 25/1979.
7. Family Welfare Programme India—1978
8. Voluntary Sterilization : A decade of achievement

Edited by Marilyn E Schima
and Ira Lubell—1979.

37

THE ROLE OF STERILIZATION IN PRIMARY HEALTH CARE

DONALD H. MINKLER

M. D. M. P. H.

Bangladesh has undertaken simultaneously a rapid diffusion of Primary Health Care and an equally ambitious expansion of sterilization services to its rural areas. The integration of these two efforts at first glance appears incompatible. Rural primary care usually implies not only decentralization but simplified technology and delegation of tasks wherever possible to non-physicians. Sterilization, on the other hand is the family planning modality most dependant on surgically equipped facilities and specially trained medical personnel. Where, then, shall the twain meet?

Clearly they become compatible only when sterilization is perceived by the acceptor and offered by the provider as an integral part of primary health care. Indeed it is not necessary to remind this audience of the health benefits of fertility control. Rather, I shall direct attention in this presentation to the opportunity offered by primary health care as an entry point, a systematic introduction, to family planning in general and sterilization in particular. The operational requirements for their integration have been dealt with the other presentations in this conference dealing with medical standards, quality assurance, training, and the logistics of decentralization of sterilization service down to the sub-thana level.

The acceptance and utilization of primary care is directly proportional to the involvement of the local community in a self-help effort to improve the quality of life. "Health for all" will never be achieved simply by political commitments to larger budgetary allocations for rural facilities. Nor is it accomplished by merely taking a package of services to the village level. Experience has already shown that systematic integration into a larger community development effort with inter-sectoral collaboration is a pre-requisite if we hope to achieve more than mere token adoption of organized rural health services. No matter how many workers are trained and deployed, their efforts remain only "visiting services" not fully utilized, by the people unless felt needs of the local commu-

nity are met, using community development itself as the entry point for health services. Only when health education and services are integrated into such community priorities as employment, food, schools, water, and housing does a high local priority for health emerge. Even then, sterilization is hardly likely to be high on a list of village priorities without a painstaking effort to ensure that it is part of an overall commitment to improve the quality of life. Moreover, even an ambitious target for sterilization acceptance must never be allowed to degenerate into a "one method" program.

The results of the 1975 Bangladesh Fertility Survey indicated a low priority for family planning, with 9.6 percent of married women of reproductive age in the rural areas reported as current users. To test whether this reflected inadequate supply or low demand for services, the Matlab Contraceptive Saturation Program was launched. It demonstrated that a full range of Family Planning alternatives does indeed influence acceptance, with a level of 34 percent users reported. While it may not be realistic to expect such a saturation to be replicable on a national scale, the commitment to primary care offers a unique opportunity to address the operational problem of providing full range of services, including sterilization, even with limited resources.

The systematic network of levels of care with dynamic connections to one-another in the form of channels of supervision, communication, referral, transport, and development of appropriate technology is what makes this possible. The World Health Organization's "Risk approach" to maternal and child care is a good example. "Something for all-more for those in need" implies a built-in mechanism for risk assessment and a matching of levels of care to categories of risk. Why not apply this concept to family planning as an initial step in the integration of sterilization into primary care? The everyday realities of rural primary care in Bangladesh offer a prime example of the applicability of the risk approach.

Primary care for the immediate future cannot assume physician care down to the most peripheral unit. But as long as sterilization remains a surgical method surgically trained personnel will be required. Current government plans call for sterilization services to be provided in each thana, with a mini-mobile sterilization team travelling to two or three fixed locations at the union level for each thana. All union level family welfare centers are to have non clinical family by planning field workers who are the lowest echelon of family planning

worker. While not providing services directly, these workers can be trained to provide referrals to the nearest facility for sterilization. In order to foster rapid diffusion of acceptance, it would be wise to base such referrals in the beginning on a risk approach similar to that planned by W.H.O. for maternal and child care. Sterilization of women at high obstetrical risk tops the list and fosters the perception of family planning generally and sterilization in particular as a health measure. Next in priority come women of high multiparity, women with known history of induced abortion, and women with difficulty utilizing conventional contraceptives.

Ideal entry points for sterilization counseling include antenatal and postpartum visits, successful weaning, completion of immunization schedules and nutrition rehabilitation regimes. All of these events foster the concept of health promotion and self help and link MCH automatically with family planning.

These examples of "systematic family planning" are offered not as the only way to promote sterilization acceptance in a rural population, but rather as one way to hasten the realization of the larger goal, spontaneous acceptance of this method for the completed family at progressively smaller family size.

As smaller family size preference grows, as it inevitably must in Bangladesh, the need for a non-surgical method of sterilization will become more acute. This brings me back to my opening reference to sterilization as seemingly incompatible with rural primary care because of its dependence on surgically trained personnel and special facilities. On an optimistic closing note, it can be reported that early experimental reports show promise that a non-surgical sterilization, both for males and females, may not be far off. Only when this goal is achieved can we expect full integration of sterilization into primary health care at the most peripheral delivery points.

I do not for a moment minimize the many obstacles to be overcome before sterilization realizes its full potential in the quest for health for all by the year 2000. But I commend wholeheartedly the country of Bangladesh for making this worthwhile effort, for after all, "Mans reach must exceed his grasp, else what is heaven for?"

POST-OPERATIVE CARE AND LONG-TERM FOLLOW-UP

Dr. M. A. Quader

The status of the voluntary sterilization operation is an elective one. The extent of wound is very small in case of Vasectomy although the skin is a typical because of the roughness of the skin and the vascularity of tissues encountered in the operation. Proper cleaning and strict aseptic measures and meticulous haemostasis in this operation will drive away the possibilities of probable complications. Here are some points of the postoperative care :—

1. During the post-operative care, the acceptors should be advised an hour's rest before leaving the clinic and light works for few days.
2. The acceptors should be given a course of Antibiotic to prevent infection and some simple analgesic tablets to relieve any pain. A course of Multivitamin tablets may be added where under-nourishment is found.
3. Necessary instructions should be given :-
 - (a) To protect the wound from getting it soiled or soaked in water during bathing.
 - (b) To avoid any injury—direct or indirect.
 - (c) To support the scrotum preferably by under-pant or light strapping.
4. One must not forget to provide 15-20 Condoms with strict advice that he must use the condoms during the sexual intercourse. Emphasis should be given in the advice that this operation is not effective until the sperm already stored in the seminal vesicles are completely ejaculated to make the semen sperm free.

This may lead to uneventful recovery in a week time when the acceptors should turn-up for check-up and further advice.

Dr. M. A. Quader, MBBS, DGO, MAMS (Vienna) Project/Medical Director BAVS Khulna.

At the end of seven days time the stich may be removed where unabsorbable suturing material has been used during operation. The acceptors also be advised to turn-up at clinic whenever they have any basic complaints later on.

In our country the female sterilization is done by Mini-laparotomy. The incision is small one but it involves manipulation of intra-abdominal structures: so the patient needs post-operative care as much as needed for the other abdominal operation. Under the present anesthetic and analgesic procedure used during the operation calls for the proper attention during the post-operative care.

The post-operative care for the Mini-laparotomy may be divided into 4 broad headings:

1. POSITION IN THE BED: After the surgical procedure is over the patient is to be carried to the bed and her position in the bed should be such that she can breathe without any obstruction, for such the patient should preferably be kept flat on the bed without pillow with head extended and the mouth should be turned on one side.
2. THE MONITERING OF THE VITAL SIGNS: The recording of the pulse, Respirations, Blood pressure and Temperature should be done at the regular interval of 15 to 30 minutes depending on the merit of the case till the condition is stabilized to normalcy. Nausia and vomiting is one of the common feature towards the recovery for some cases. The care should be taken to clean the mouth so that vomitus may not get sucked into the respiratory tract. The condition should properly be treated by giving antiemetic drugs as well as the I. V. fluid as per necessity. A good number of our acceptors come from the long distance to the clinic who are almost under starved and dehydrated. These cases should properly be looked after for the correction of dehydration by intravenous fluid.
3. AMBULATION: If every thing goes well the patient passes into ambulation stage after few hours of bed-rest. One may become restless because of the pain of the wound or distention of the bladder. This problem can be managed by simple pain relieving analgesic drugs like Aspirin and Paracetamol etc. The patient should be encouraged for voiding in the sitting posture in case of the later complains. Should be given some light food when feels hungry.
4. INSTRUCTIONS AND COUNSELLING: The patient should be given some simple analgesic tablets, a course of antibiotic and some Mul-

vitamin tablets with proper instruction of their uses. Certain things may go wrong during their post-operative period such as :—

- 1) Bleeding from the wound.
- 2) The dressing may be soiled.
- 3) Discomfort at the site of the injection
- 4) Pain due to injuries.

The injuries may be direct from the blow or the kick of the nursing child or may be indirect due to fall or strain of the abdominal muscles resulting from the heavy manual works.

The instruction and counselling should be given so that one can avoid or protect her from above mentioned problems to have uneventful recovery and get her stitches removed by the field staff or the clinic staff on the 7th or 8th day.

The acceptor must be asked to contact nearest medical unit if she has any basic complains because of the operation before and after the removal of the stitches.

The Long Term Follow-up

The long-term follow-up is altogether a different chapter. Before I discuss the importance and extent of long-term follow-up, let us recollect what is follow-up and what for? Is the follow-up necessary at all and if so, upto what extent we should do the follow-up.

Literally the follow-up means :

1. To follow or pursue closely and persistently.

or

2. To make more effective by doing something more.

The last meaning is more applicable to our program. We should do follow-up, because something may go wrong and long term follow-up should methodically be done for several years starting from 3-4 weeks onwards.

Methodology :

The follow-up may be :

- a) Direct : 1) In the clinic : The acceptors may be asked to come up in the clinic at schedule date and time,
2) In the camps ; A team consisting of Doctor, Counsellor and Paramedic may be sent nearer to the accep-

tors for the purpose on a pre-arranged place and time so that they may assemble there.

- b) Indirect :
- 1) By correspondence. That is by writing letters to the individuals by pre-paid reply cards.
 - 2) From Informations through field staff, relations as well as neighbours.

WHAT MAY GO WRONG IN THE LONG-TERM FOLLOW-UP.

1. MENSTRUAL PATTERN—We are observing some deviations in the menstrual flow in the form of scanty, excessive, irregular, amenorrhoea etc.
- 2 SEXUAL LIFE—Frigidity is one of the common complain. Some acceptors also complain of dysmenorrhoea and dyspareunia.
3. OTHER MEDICAL PROBLEMS—Any medical problem develop after sterilization operations. the client make operations responsible. They have to be followed up to remove their mis-conceptions; otherwise, there will be back fire of the onward march of the program.
4. HERNIA—Rarely occurs which are said to be tumors developed after operations. In our 7,225 cases we have encountered 4 cases of incisional hernia.
Herniorrhaphy done in two cases, other two are afraid of relapse after the second operation.
5. FAILURE OF OPERATION—The incidence of pregnancy varies from 0.37 to 1% depending on the technique of operations and the experience of the operator. The pregnancy may be—
 - a) Intra-uterine and
 - b) Extra-uterine or Ectopic

We had 8 Intra-uterine pregnancies recorded during the last three years out of 7 225 tubectomy cases done by modified pomeroy technique. Three of them were re-operated after the normal delivery.

6. TORSION OF THE DISTAL SEGMENT OF THE TUBE: In the above technique, in some case there may be abnormal mobility of the distal half of the tube leading to occasional torsion of the distal segment. The symptoms and signs closely simulate those of torsion of the ovarian cyst, but with no palpable mass.

7. **PSYCHOSOMATIC PROBLEM:** We have come across quite a good number of cases with various complaints arising out of the social and family maladjustment because of the sterilization operation. So far we have discussed what may go wrong with the acceptors of sterilization. They should be followed up so long there remains the possibility of the cropping up of the problems.

Before conclusion, may I take the privilege of pointing out to one very important point:

The Gynaecological Text Book says that Fibroids or Fibromyomas of the uterus and adnexa are frequently associated with primary infertility or secondary infertility or sterility. It also says that coloureds are more susceptible than whites. In one study by Prof. Lawson and Stewart, of all the Fibroid patients, 76% were primary or secondary infertiles (i). I do not have the records of any studies of Indo-Bangladesh sub-continent. If this remains the fact, we have to be concerned and watchful. In our National Program, we are going to sterilize few lacs of our mothers of whom a good number are going to run the risk of having uterine pathology in next few decades.

So there is a genuine need for long term follow-up of all the sterilization acceptors through-out the country as a part of effective national sterilization program to pin-point the brought-up pathology and their salvation.

-
- (i) Obstetrics & Gynaecology in the tropics and the developing country by-Prof. Lawson, Professor of Ob/Gyn., University of Abadan and Prof. Stewart, Professor of Ob/Gyn., University of West Indies, Jamaica.

STERILE TECHNIQUE

—Prof. Mirza M. Islam.

Surgery and Asepsis goes side by side. Sterile technology is a must in any surgical procedure. A germ-free or sterile environment is a prerequisite for any kind of surgical procedure.

Surgery in rural areas of Bangladesh has its own circumstantial & local environmental difficulties. It is particularly difficult where running water and electricity is not available. Our rural population by habit is of different in comparison with urban counterpart in case of personal cleanliness,

Operating Room, its surroundings, people working in it, needs to be specially trained to achieve a sterile atmosphere otherwise the whole programme of quality service of voluntary sterilization will come to end only in disrepute. It will be disastrous if infection of the wound cannot be checked.

Sterile technology is a must for achieving a quality service in voluntary sterilization. It involves the following components :—

- A. The client,
- B. The operating room,
- C. The equipments & instrument.
- D. The operative procedure.
- E. The surgeon & assistants.
- F. Paramedical staff.

A. The client :

One will be at a loss to think of doing a surgery on a person who has no preliminary knowledge of personal hygiene. All clients must have shaving and cleaning of the operation area and a bath before coming to operation room. The clothes must be changed a new or a freshly laundered cloth must be supplied before coming to operation room.

Prof. Mirza M Islam, F.R.C.S., Professor of Surgery, Dacca Medical College.

B. The operation room

Majority of operation room (O.R) in rural areas are improvised. One must see that the O.R. has a pucca construction, a clean floor, wall & roof. It must be fly-proofed if it cannot be made dust-proof, which should also be a must. Its ventilation should not be facing to a crowded road or space. The wall, ceiling & floor should be such that it can be washed & cleaned daily to make it dust-free. There should be minimum personnel moving in the O.R. It should be spacious so that there should not be any crowding. Operation table or an improvised one should be cleaned & washed with antiseptic lotion daily. Its mattress should have a cover which can be changed or washed daily.

C. Instrument & Equipment :—

A high pressure autoclave, must be available in all centres. One must know its functioning & its superiority over ordinary boiling. Now-a-days both electric & kerosene operated autoclaves are available to serve the purpose of rural areas. A boiling sterilizer is an alternative for an autoclave only for instruments etc and not for linen.

Instruments & smaller equipment needs to be boiled. It must be boiled at least for half an hour from its boiling point. Washing with boiling water is not a method for making something germ free. This practice should be stopped forth with. One packet of instrument for one operation is ideal. Instrument trolley should be of stainless steel top which can be cleaned easily. Separate container with 100% lysol or Dettol should be available for keeping sharp cutting instrument. All such instrument is to be washed in sterile water before using. Instrument lifters & lifter bottle should be boiled or made sterile daily and lotion used in it should be changed daily. A separate space for scrub up room is better. All the basins, sinks should be washed & cleaned daily. A nail brush is a must for washing hand.

Operation Procedure :—

It is expected that the client has come into O.R. with previous shaving & cleaning of the area and a bath before coming for surgical procedure. The skin sterilization is better done by painting with iodine followed by rectified spirit. Alternative is painting with savlon followed by rectified spirit. Draping by autoclaved sheets must be perfect covering whole body. Now a days window sheets are available & the window must not be very big. It should be 3"×2" at best so that a minimum area is

only kept exposed to operation field. Manipulation & tissue laceration should be minimum & blunt dissection should be avoided. Haemostasis must be perfect. There should not be any dead space between layers. A subcutaneous fat layer stitch with base fixed is always rewarding & prevents wound haematoma & infection. Skin is better closed with non absorbable suture & removed timely.

The Surgeon & Assistants :

They should wear separate clothes made for O.R. Their nails must be clipped. The cap should cover the whole hair & the mask must cover the mouth & nose. In one word no hair should be visible. All caps & masks should be washed & cleaned daily. They must be well versed with modern knowledge of asepsis & must have sufficient apprenticeship before starting individual surgical work of operation. Gowns can not be changed at best gloves must be changed after each operation. Post operative dressings can be done by paramedics.

Surgery means luxury. There is no short cut in surgical procedure. The paramedics must be dressed, trained and have apprenticeship like doctors before coming to help in O.R. They must have a course on O.R. technique
"Surgery fails where sterile technology fails."

"COUNSELLING AND INFORMED CONSENT

Prof. A. B. Bhuiyan

There was a time when there was no post of Counsellor in this country and there was no Counselling in any Family Planning clinic. BAVS is the first organisation to introduce the Counselling in Family Planning Program. Counselling should be intimately associated with Family Planning Program. But it is one of the most ill understood word also in this program. In BAVS the Counselling is an important component of the whole program and Surgical Sterilization can not be thought of without Counselling. There is no exact equivalent word for Counselling in Bengali. Many words are used in Bengali which really mean motivation and not counselling. Counselling is practised mostly by psychiatrist or Counsellors who deals with social or socio-medical problems. The exact meaning is not even clear to most of the literate people including the physicians. It is always equated with motivation even by most of the literate people including the physicians. It is always, equated with motivation, even by most those who are involved in Family planning program.

Definition of Counselling :

Counselling means narrating the correct information in one subject and guide the person to come to a decision without any coercion. The information must be based on knowledge, experience and must be scientific. Counselling in Surgical Sterilization is also an attempt to inform the acceptors in detail about Surgical Sterilization and allow the acceptors to understand the fact and come to a decision. The decision may be otherwise what the program stands for. It is an art by dint of which the Counsellor exchange the views with the acceptors and there is a discussion from both the end cordially. There is no stereotyped ways or means of Counselling. It is a more development of relation between two persons and the outcome is a decision which is beneficial to both one for the individual and the other for the program.

Assoc. Prof. of OG-Gyn. ; Rangpur Medical college President BAVS, Rangpur Branch.

Ami and objectives of counselling :

1. To impart knowledge on the method.
2. To eradicate misinformations, social and religious superstitions.
3. To discuss the benefits of one method in relation to the other methods.
4. To meet up the queries on method, operation, social and religious factors.
5. Finally to assist to come to a decision.

Quality of a Counsellor :

- A. A Counsellor should be slightly elderly married and intelligent.
- B. A Counsellor should have enough knowledge about the uses of different contraceptive methods and its effects on health psycho-social life of an individual. In no way a Counsellor must not expose herself/himself the superiority about her/his knowledge on Family Planning, otherwise a gap will be created between the counsellor and the client which will prevent implementation of Counselling policy.
- C. A Counsellor should not be emotional in her/his expression.
- D. A Counsellor should have equal eagerness about the client without classifying whether the client is literate or illiterate, rich or poor, urban or rural.
- E. A Counsellor should have the capacity to change and adjust the mode of counselling session whenever she finds that a client is not free to her and does not understand what she/he says. So she/he should know the tactics of expressing her views so that the client easily understand her view points.

Environment for Counselling :

Counselling should be done in an isolated room so that client may have free discussion with the Counsellor without any hesitation. Counselling should help the client to know on the different aspects of Voluntary Sterilization with audio-visual aids and feed back the queries of the client. The room should be decorated with common and attractive posters.

Types of Counselling :

Counselling may be done individually or collectively in a group. At times Group Counselling becomes a motivating approach than a real

Counselling. But in a clinic like BAVS Group Counselling may be done in the waiting room or in the dormitory. Preference should be given in individual counselling particularly in Surgical Sterilization Program because it is permanent and it requires a correct decision.

Methodology of Counselling :

1. Cordial reception.
2. Free discussion with the acceptor and acquaintance with each other.
3. Discussion on Family Planning with emphasis on Surgical Sterilization.
4. Enquiries on superstitions or social or religious taboos.
5. To meet up the queries.
6. To help the acceptor to reach a final decision.
7. Discussion on informed consent and documentation.

Counselling and Screening :

1. Many times acceptors are screened out by the counsellor because of misinformations or misconception about surgical sterilization.
2. Even wrong statements are also correctly revealed by the counsellor during discussion.

The following chart shows the number of screened out clients in BAVS, Rangpur Clinic during Counselling.

Period 10th June, 1977 to 31st December, 1980

<u>Registered for Sterilization</u>	<u>Number of clients changed decision after counselling</u>	<u>No. of clients screened out by the counsellor during counselling session due to wrong statement.</u>
8991	213	125
No. Clients screened out for Medical grounds	<u>Number of clients sterilized</u>	
<u>784</u>	<u>7869</u>	

Counselling in broader sense

Counselling by everybody in the clinic is also a newer approach in the program. The facts of Surgical Sterilization can be obtained from all the personnels engaged in the clinic. The acceptor can get this information from clinic personnels starting from the Darwan, the Receptionist, Counsellors, Nurses and Physicians on enquiry, and they also can meet up most of the queries put by the acceptors. This concept depends on the good behaviour and mannerly attitude of the clinic personnels.

Informed Consent—

Informed consent is practised in BAVS clinics mostly on self explanatory document. For illiterate person the informed consent should be read out by the counsellor or the physician and explained each and every clause of it. In BAVS Clinics informed consent is practised for a long time.

জনসংখ্যা নিয়ন্ত্রণের লক্ষ্যে বন্ধ্যাকরণ কর্মসূচীর গুরুত্ব ও ভূমিকা

ডঃ নার্গিস আক্তার

জনসংখ্যা সমস্যা ও নিয়ন্ত্রণ এবং জনগনকে এ বিষয়ে সচেতন করিয়া তোলার জন্য সরকার ব্যাপক কর্মসূচী গ্রহণ করেছে। এটা অনুধাবন করা গেছে যে বর্তমান জনসংখ্যা প্রবৃদ্ধি হার যদি কমানো যায় তবে ভবিষ্যতে এক মহা সংকটের সম্মুখীন হবে কাজই জনসংখ্যা বৃদ্ধির ভরাবহ পরিস্থিতি মোকাবেলায় সরকার নিম্নে লিখিত বিষয়ের উপর গুরুত্ব দিচ্ছেন।

১। জনসংখ্যার বর্তমান প্রবৃদ্ধির হার কমানো এবং একটা আকস্মিক কোটায়া ধরে রাখা।

২। ব্যাপক পরিকল্পনার মাধ্যমে প্রতিটি সক্ষম দম্পতিকে জনসংখ্যা সমস্যা সম্বন্ধে সচেতন করা যাতে তারা নিজ দায়িত্বে পরিবারের সদস্য সংখ্যা সীমিত রাখার চেষ্টা করতে আগ্রহী হয়।

৩। আগ্রহী দম্পতি যাতে সময় মত সেবা পায় তার জন্য কেন্দ্রে ও বাড়ী বাড়ী সেবা প্রদান কর্মসূচীকে জোরদার ও উন্নতমানের সেবা প্রদান প্রচেষ্টা অব্যাহত রাখা।

৪। বর্তমান মা ও শিশু মৃত্যু হার কমানো এবং এর জন্য নিম্নরূপ পদক্ষেপ নেওয়ার পরিকল্পনা গ্রহণ করা হয়েছে।

ক) ১৯৮৫ সনের মধ্যে প্রতিটি অত্যন্ত মার গর্ভ খালাসের পূর্বে ও পরে নূন্যতম দেখাশুনা ও চিকিৎসা নিশ্চিত করা।

খ) ৬৪ হাজার গ্রামের বংশগত ভাবে ধাত্রী কাজে নিযুক্ত ধাত্রীমাদের নূন্যতম প্রশিক্ষণ ও যাবতীয় ঔষধপত্র সরবরাহ মাধ্যমে দেখাশুনা, উপদেশ ও স্বাস্থ্য সন্মত ভাবে খালাসের ব্যবস্থা করা।

গ) জন্মের সাথে সাথে শিশুর নাড়ী কাটা হতে শিশুর যত্ন ও শিশুখাদ্য সম্বন্ধে তাদের ধারণা দেওয়া।

ঘ) ইউনিয়ন পর্যায়ের এফ. ডিবিউ. জি হইতে থানা সাবডিভিসন ও জেলা পর্যায়ের সমস্ত মাতৃ শিশু স্বাস্থ্য কেন্দ্র ও মাতৃ শিশু স্বাস্থ্য ইউনিট গুলোকে আরো সক্রিয় ও ব্যাপক সেবা প্রদানের জন্য প্রস্তুত করা।

অতএব উপরোক্ত কর্মচারী সঠিক বাস্তবায়নের মাধ্যমে ১৯৮৫ সন মাগাছ নিম্নের ডেমোগ্রাফিক ফল লাভ করার লক্ষ্য স্থির করা হয়েছে।

১। মোট উর্বরতা হার ৫'৮৫ হইতে ৪'১ তে নামিয়ে আনা।

২। মোটামোটি জন্ম হ্রাস হার বর্তমান ৪৩'২৫ হইতে ৩১'৫৬ তে কমিয়ে আনা।

৩। এই সময়ের মধ্যে সাধারণ মানুষ, মা ও শিশু স্বাস্থ্য রক্ষার গ্রামমুখী সেবা পরিকল্পনার সুষ্ঠু বাস্তবায়ন সম্ভব হলে, মৃত্যুর হার বর্তমান ১৬'২৬ হতে কমিয়ে ১৩'২৭ আনা সম্ভব হবে।

৪। এতে করে ১৯৮৫ সন নাগাদ মোটামোটি জন্ম প্রবৃদ্ধির হার বর্তমান ২'৭ থেকে নেমে ১'৮এ আসবে।

অতএব, আগামী ৫ বৎসরে জাতীয় লক্ষ্য মাত্রা অর্জন করতে হলে দরকার হবে সুষ্ঠু পরিকল্পনা, কর্মীদের প্রশিক্ষণ, সেবা প্রদানের কেন্দ্র গুলি চিহ্নিত বরন ও উপযুক্ত ব্যবস্থাপনার মাধ্যমে উন্নতমানের সেবা প্রদান নিশ্চিত করন, মাঠ কর্মীদের কাজে উদ্যোগী ভূমিকা গ্রহণে উৎসাহিত করন, সর্বোপরি জাতীয় পর্যায়ে হতে মাঠ পর্যায় প্রশাসন ও টেকনিক্যাল সুপারভিসনের সমস্ত দুর্বল অংশ চিহ্নিত করে উহার সংশোধন করা এবং প্রশাসন ও টেকনিক্যাল সুপারভিশনকে একটি বাস্তবমুখী পরিকল্পনার মাধ্যমে জোরদার করা।

কাজেই উপরোক্ত কর্মসূচীর মাধ্যমে যে লক্ষ্য মাত্রা অর্জন একান্তই অত্যাাবশ্যক মনে করা হচ্ছে তাহা নিম্ন রূপ।

টোবিল ১

বৎসর	আনুমানিক জনসংখ্যা (লক্ষ)	দম্পতির সংখ্যা (লক্ষ)	নিয়মিত পদ্ধতি গ্রহনকারীর সংখ্যা (লক্ষ)	সম্পন্ন দম্পতির শতকরা হিসাবে গ্রহন কারীর সংখ্যা
৯-৮০	৯০২	১৭৩	২৪	১৪%
৮০-৮১	৯২৯	১৭৫	৩৯	১৭'৬%
৮১-৮২	৯৪৯	১৭৯	৪০	২২%
৮২-৮৩	৯৭০	১৮৪	৫০	২৭%
৮৩-৮৪	৯৯০	১৮৯	৬১	৩২%
৮৪-৮৫	১০০৮	১৯৪	৭৩	৩৮%

উপরোক্ত লক্ষ্য মাত্রা অর্জন করার জন্য ১৯৮৫ সন পর্যন্ত বিভিন্ন পদ্ধতি গ্রহনকারী দম্পতির সংখ্যা নির্ধারণ করা হয় নিম্নরূপ।

টোবিল ২।

পদ্ধতি	১৯৮০-৮১ (হাজার)	১৯৮১-৮২ (হাজার)	১৯৮২-৮৩ (হাজার)	১৯৮৩-৮৪ (হাজার)	১৯৮৪-৮৫ (হাজার)
নির্বাঁজ করন	৪০৭	৫৫২	৬৬৬	৮০৪	৯৬৮
খাওয়ার বাড়ি	৯৩১২	৯২৭০	৯৩০৫	৯৫৬৯	১৬২২
কনডম	৮২০	১০৮৮	১৩০৭	১৩১৮	১৪০৯
আই, উই, ডি,	১০১	২০৬	২৯৯	২২২	৩২৮
অন্যান্য	১৩১	২৯৬	৩৬৬	৪৩৬	৫৯৬

বন্ধ্যাকরন পদ্ধতিকে সরকার অন্যান্য পদ্ধতি মধ্যে সবচেয়ে নির্ভর যোগ্য পদ্ধতি মনে করে এবং বিগত ১৯৭৭ সন হতে এই পদ্ধতি গ্রাম গঞ্জর বহু সংখ্যক নারী পুরুষ গ্রহণ করেছে। উপলব্ধি করে দেখা গেছে যে, গ্রামের মহিলারা প্রতিদিন টেবলেট বা প্রতিদিন ব্যবহৃত পদ্ধতিগুলি গ্রহণে আগ্রহী বা, তারা খাটিয়ে খাওয়া সাধারণ জনসাধারণ, একেবারে কি জিনিষ মিলে প্রতি বৎসরে সন্তান ধারনের বিপদ হতে রক্ষা পাবে, সেই ধরনের কোন পদ্ধতি নিতে পারলেই নিশ্চিত।

কাজেই বর্তমান পদ্ধতি গুলির মধ্যে কেবল বন্ধ্যাকরন পদ্ধতিই তাহাদের সামনে তুলে ধরা সুপরিচিত করে তোলা সম্ভব পর হয়েছে। সবাইর জাতার্থে ১৯৭২ সন হইতে বৎসর ভিত্তিক বন্ধ্যাকরনে কর্মসূচীর ফলাফল দেওয়া হইল।

টোবিল ৩।

সন	পুরুষ বন্ধ্যাকরন	মহিলা বন্ধ্যাকরন	মোট।
১৯৭২	২৬৫	২৭৯	৫৪৬
১৯৭৩	১২২	২৩১	৪০৩
১৯৭৪	৪,১৯০	২,৫৬৪	৬,৭৫৩
১৯৭৫	২,৯,৩৬৮	৭,৬২৫	৩৬,৯৯৩
১৯৭৬	৩৮,৬৮৩	১৫,৩২১	৫৪,০০৪
১৯৭৭	৭৩,৪১৪	৫০,৪৩১	১,২৪,২৩৫
১৯৭৮	১৯,৫০০	৪০,৮৫২	৬০,৩৫৩
১৯৭৯	২৮,০০০	১,১৩,০০০	১,৪১,০০০
১৯৮০(জুন পর্যন্ত)	২১,০০০	৭৯,০০০	১,০০,০০০
		মোট	৫,২৪,২৯৭

উল্লেখ করা যেতে পারে যে, এই পর্যন্ত বন্ধ্যাকরন অপারেশন যারা করেছেন তাদের শতকরা ৯০ জন গ্রামের সাধারণ পরিবারের পুরুষ ও মহিলাদের গড় বয়স ২৯ বৎসর এবং গড় সন্তান সংখ্যা ৪ (চার)।

অতএব উপরোক্ত পর্যবেক্ষন হতে আমরা সহজ ভাবে ধরে নিতে পারি যে, বক্ষ্যাকরন কর্মসূচী গ্রামের মহিলাদের মধ্যে বেশ গ্রহন যোগ্য হয়েছে। এবং এই কর্মসূচী বাস্তবায়নে উন্নত মানের সেবা প্রদান নিশ্চিত করা গেলে জাতীয় লক্ষ্য মাত্রা অর্জন খুব কঠিন হবে না। এই উদ্দেশ্যকে সামনে রেখে জনসংখ্যা কার্যক্রমের দ্বিতীয় পঞ্চ বার্ষিকী পরিকল্পনায় বক্ষ্যাকরন কর্মসূচীর উপর বিশেষ গুরুত্ব আরোপ করা হয়েছে। দ্বিতীয় পঞ্চ বার্ষিকী পরিকল্পনার প্রতি বৎসরে বক্ষ্যাকরন কেন্দ্র সংখ্যা বাড়ানো, আসার পত্র মন্ত্রপাতি ও উন্নয়ন পত্র সরবরাহ নিয়মিত করার ব্যবস্থা রয়েছে। এবং তেঁহা বক্ষ্যাকরন কর্মসূচীতে বেসরকারী প্রতিষ্ঠান গুলিকে ও বক্ষ্যাকরন কেন্দ্র খোলার সুযোগ দেওয়া হয়েছে, যাতে যৌথ উদ্যোগে সাবিক সাফল্য লাভ করা সম্ভব পর হয়। টেবিল নং ৪-এ দ্বিতীয় পঞ্চ বার্ষিকী পরিকল্পনায় কেন্দ্র সংখ্যা ও বক্ষ্যাকরন অপারেশনের লক্ষ্য মাত্রা দেখানো হয়েছে।

টেবিল ৪।

বৎসর	বর্তমান চালু কেন্দ্রের সংখ্যা	নূতন কেন্দ্র খোলা হবে	বেসরকারী পুরাতন ও নূতন কেন্দ্রের সংখ্যা	সর্বমোট কেন্দ্রের সংখ্যা	মোট বক্ষ্যাকরনের সংখ্যা	প্রতি বৎসর প্রতি কেন্দ্রের অপারেশনের সংখ্যা
২০০-৮১	২৭৫	৫০	২০০	৪০৭	৪০৭	১২৫২
৮১-৮২	৫২৫	৫০	৮০	৬৫৫	৫৪২	১০৬২
৮২-৮৩	৬৫৫	৫০	৪০	৭৪৫	৬৬৬	১০১৭
৮৩-৮৪	৭৪৫	৫০	৪০	৮৩৫	৮০৪	১০৭৯
৮৪-৮৫	৮৩৫	৫০	৪০	৯২৫	৯৬৮	১১৫৯

উপরোক্ত টেবিল হতে এই ধারণা দেওয়া যায় যে, কেন্দ্র গুলি যদি কর্ম উপযোগী করে চালু রাখা যায় তবে প্রতিটিকেন্দ্র মাসে ২০ দিন অপারেশন তারিখ নির্ধারিত করে দিলে প্রতিদিন গড়ে ৫টি করে বক্ষ্যাকরন অপারেশন করলে লক্ষ্য মাত্রা অর্জন সম্ভব হবে। কাজেই বর্তমান কর্মসূচীতে বক্ষ্যাকরন অপারেশনের মান উন্নয়ন-এর উপর জোর দেওয়া হয়েছে এবং নিম্ন লিখিত নির্দেশ গুলি বিশেষ ভাবে পালনের উপর গুরুত্ব আরোপ করা হয়েছে।

১। ক্যাম্প নিয়মে অপারেশন বন্ধ করে দেওয়া হয়েছে। কাছন ক্যাম্প অপারেশনে উন্নত সেবা ও জীবাত সংক্রামন রোধ করা সম্ভব নয়।

২। প্রতিটি চালু কেন্দ্রে একদিনে ১২ টির বেশী অপারেশন করা নিষিদ্ধ করা হয়েছে।

৩। প্রতিটি কেন্দ্রের অপারেশন খিয়েটার-এর পরিচ্ছন্নতা মন্ত্রপাতি সার্জিকেল লিনেন জীবানু মুক্ত করনের জন্য অটোক্লেভিং ও সিদ্ধ করার ব্যবস্থা করা হয়েছে।

৪। পর্যাপ্ত পরিমাণে সাজিকেল মিনেন যেমন গাউন ক্যাপ, মাসক, গ্লোভস অপারেশনের খসড়াপাতি ওস্তা ঔষধ পত্র সরবরাহের জন্য উদার ভাবে অর্থের বরাদ্দ রাখা হয়েছে। কাজেই উন্নত মানের সেবা নিশ্চিত করার ব্যাপারে উপরোক্ত ব্যবস্থা গুলো পঞ্চ বার্ষিকী পরিকল্পনার নিশ্চিত করা হয়েছে। এই গুলোর সুষ্ঠু ব্যবহার সু সরবরাহ সংগ্রহ নিভর করবে জেলা ও থানা পর্যায়ে ডাক্তারদের প্রশিক্ষণ অভিজ্ঞতা ও উন্নত মানের সেবা দেওয়ার সনোত্তির উপর।

বিগত বৎসর গুলি হতে আমরা যে অভিজ্ঞতা অর্জন করেছি তাতে দেখা যায় আমরা যে এনালজিনিয়া সেন্টেটিভ ব্যবহার করছি তার মধ্যে কোন কোন ড্রাগ ক্রায়স্টের ক্রিয়া সাময়িক ভাবে বন্ধ করতে পারে। যে দুইটি ড্রাগ বিপদজনক বলে ধরা হয়েছে সেগুলো হল ইনজেকশন পেথিডিন ও ইনফেশনডাইজিপাল্প (সিডাকসন)।

এই দুইটি ড্রাগ দ্বারা যাতে কোন ক্রায়স্ট এর খাস ক্রিয়া বন্ধ না হয় তার জন্য নিম্ন লিখিত ব্যবস্থা গুলো গ্রহণের জন্য নির্দেশ দেওয়া হয়েছে এবং দেশী ও বিদেশী বিশেষজ্ঞদের এই ড্রাগ দুইটির সর্ব ক্রিয়ার উপর মতামত নেওয়া হয়েছে।

১। পেথিডিন ৫০ মিলিগ্রাম বা শরীরের ওজন অনুপাতে পরিমাণ নিরূপন করে ৩০ মিনিট পূর্বে মাংসে দেওয়ার নিয়ম করা হয়েছে।

২। ইনজেকশন ডাইজিপাল্প (সিডাকসন) ১০ মিলিগ্রামের বেশী শিরাই দেওয়ার নির্দেশ দেওয়া হয়েছে।

৩। প্রতি অপারেশন থিয়েটারে জরুরী ঔষধ ও রেসপিরেটরী রিসাস্টিটের এবং অক্সিজেন সিলেণ্ডার প্রভৃতির রাখার ব্যবস্থা করা হয়েছে।

৪। ঔষধ প্রয়োগের সময় হতে অপারেশন ও পোষ্ট অপারেশন সময়ে ভাইটলি সাইন ওজিরি উপর কড়া নজর রাখার নির্দেশ দেওয়া হয়েছে।

অতএব অভিজ্ঞতার আলোকে ইহা বলা যায় উপরোক্ত ব্যবস্থা গুলি যথাযথ ভাবে পালন করা হলে উন্নত মানের সেবা প্রদান ও বন্ধ্যাকরনের লক্ষ্য অর্জনে কোন প্রকার অসুবিধার সৃষ্টি হওয়ার কথা নয়।

বন্ধ্যাকরনে উৎসাহিত করা ও বন্ধ্যাকরন অপারেশন করার পর ক্রায়স্টদের প্রতি সতর্ক দৃষ্টি রাখা ও সম্পূর্ণ সুস্থ হয়ে না উঠা পর্যন্ত তাহাদের নিয়মিত দেখাশুনা করা মার্চ কর্মীদের দায়িত্ব। এই দায়িত্বে এতটুকু অবহেলা ও অযত্ন হলে ক্রায়স্টদের বড় রকমের অসুবিধার সৃষ্টি হয়ে যেতে পারে। কারণ অপারেশন ২৪ হইতে ৪৮ ঘন্টার পর ক্রায়স্টদের ঔষধ পত্র সরবরাহ ও উপেক্ষন দান করে বাড়ীতে পাঠিয়ে দেওয়া হয়। আপনারা জানেন যে কাটা স্থান শুষ্ক হতে ৭ থেকে ১০ দিন সময় নেয়। কাজেই মার্চ কর্মীদের ৫ থেকে ৭ দিন ক্রায়স্টের অবস্থা সম্বন্ধে নিয়মিত খবর নিতে হবে এবং যে কোন

অসুবিধা সমক্ষে নিকটতম কেন্দ্রে জানিয়ে চিকিৎসার ব্যবস্থা করতে হবে। কাজেই মাঠ কর্মীদের সচেতন করে তুলতে না পারলে জীবানু সংক্রমন ও অন্যান্য উপসর্গ— এর সংখ্যা বেড়ে যাবে ও প্রোগ্রাম সম্পন্ন সময়ের মধ্যে সূক্ষ্মাতি হারাবে।

অতএব হই ক্ষেত্রে মাঠকর্মীদের বিশেষ প্রশিক্ষণ প্রয়োজন। দ্বিতীয় পল্লি বাষিকী পরিকল্পনায় মাঠকর্মীদের এই বিষয়ে প্রশিক্ষণের উপর গুরুত্ব দেওয়া হয়েছে। এই কর্মসূচীর সফল বাস্তবায়নে জন্য মাঠকর্মীদের টেকনিক্যাল অভিজ্ঞতা ও টেকনিক্যাল সুপারভিশন একান্ত দরকার বলে মনে করা বাঞ্ছনীয়। বর্তমানে এইটির অভাব লক্ষ্য করা গেছে এবং বিষয়ে নতুন করে চিন্তা ও ব্যবস্থা গ্রহণ এই মুহূর্তে আমি প্রয়োজন মনে করি।

উপসংহারে আমি বলব আপনারা ডাক্তার যারাপ্রতিটি কেন্দ্রে নিযুক্ত আছেন তাহাই এই প্রোগ্রাম বাস্তবায়নের মূল চাবিকাঠি, বাস্তবমুখী ও কার্যকরী পদক্ষেপ আপনাদের মাধ্যমেই কেবল নেওয়া সম্ভব। আপনারা কাজ করছেন মূল কেন্দ্রে, কাজেই আপনাদের অভিজ্ঞতার আলোকেই কর্মসূচীর রদবদলকে বাস্তবমুখী পরিকল্পনা ভিত্তি হিসেবে ধরা হবে। আমি মনে করি আপনারা অকুতোভয়ে এই আলোচনা সভায় আপনাদের অভিজ্ঞতা ও মতামত লিখিত বা মৌখিকভাবে আলোচনার জন্য উপস্থাপন করবেন। আপনাদের অভিজ্ঞতার আলোকে একটি বাস্তব মুখী বাস্তবায়ন যোগ্য বহ্যাকরন কর্মসূচী প্রণীত হউক ইহাই কামনা করি।

"Examination and selection of persons for permanent sterilization"

(Abstract)

Prof. S. M. Mukhlesur Rahman

Population explosion being our number one problem, the government wants extensive sterilization. Family Planning workers often bring a large number of clients for the operation but the doctor is to decide whom he will do the operation. Doctors are not computers, they have got a highly developed brain and so they are to use their discretion in the selection of the clients keeping in view the national problem, physical and mental health of the individuals and his responsibility for the good or bad of his operation.

The case history may be written by another person but the doctor himself should analyse the case history, interrogate the client and be sure of his/her motivation. Clinical examinations are to be done by the doctor himself and ask for the laboratory investigations as he feels necessary.

After analysing the case history, physical examinations findings and laboratory reports, the doctor is to decide whether the case is suitable for permanent sterilization or not. While selecting the clients for permanent sterilization, I think, a suitable mother of 2 children should get preference over the mother of 8 children. One should also hesitate to sterilize an educated and economically solvent couple. Though the government says "boy or girl two children are sufficient" but the parents desire for a son, including the age and health of the two are of utmost consideration.

In conclusion, this is to impress that permanent sterilization service should not go for quantity of work but the motto should better be "service with quality".

MAINTAINING ASEPSIS IN VOLUNTARY STERILIZATION

Brig. K.M.S. Jinnat

1. INTRODUCTION :

If we could imagine for a moment that this seminar is being held in SONARGAON which was the capital of ancient Bengal during and not in this brand new ultramodern "HOTEL SONARGAON" both the key words of my talk "Asepsis & Sterilization" would have been unknown as Lord Louis Lister introduced "antiseptic principle" in 1867 and first sterilization operation was probably done during

Now Ladies & Gentlemen I am not going to discuss about the asepsis which is customary in a late 20th Century Hospital situation where everything is built in and geared-up for maintaining asepsis. I am discussing a situation, where circumstance has compelled the nation to apply emergency brake to slow-down its runaway population growth and in the process has been compelled to undertake a huge number of sterilization in makeshift surgical facilities for and wide in the country.

Performing a surgical procedure away from urban hospital situation has its disadvantages but there are some advantages as well from asepsis point of view, if certain basic rules are followed religiously.

2. THE PROBLEM :

a. Surgical Sterilization performed during 1974-81.

Year	Vasectomies	Tubectomies	Total
1974-75	14,469	4,707	19,176
1975-76	37,839	11,076	48,915
1976-77	75,066	41,246	116,312
1977-78	32,643	44,722	77,365
1978-79	24,705	81,719	106,424
1979-80	27,248	171,248	198,782

Brig. K. M. S. Jinnat, AMÇ.

b. Death related to Sterilization—January, 1978 to November, 1980.

Tubectomy	40 deaths
Vasectomy	8 deaths

Causes of death : Total 40 (forty).

TUBECTOMY :

1. Anaesthesia related—14
2. Tetanus — 12
3. Haemorrhage — 4
4. Infection — 4
(Non-treatments)
5. Other : High fever — 6
Pulmonary Embolism.
Anaphylactic
Undetermined.

Total—40 (forty)

VASECTOMY : Total 8
Infection
(Tetanus + Non-tetanus)

c. Major Complications in Sterilization Operations.

1. Respiratory distress — 55
2. Bowel injury — 22
3. Bladder injury — 18
4. Ovarian injury — 16
5. Excessive bleeding — 14
6. Broad ligament injury — 8
7. Infection Tubectomy — 1-3%
Vasectomy — 3-7%

d. Target of Five Year Plan.

IN THOUSANDS :

	1980-81	1981-82	1982-83	1983-84	1984-85
Sterilization	407	552	666	804	968

e. Projected Mortality & Morbidity figure.

Reference : Morbidity and Mortality in Voluntary Sterilization program
a paper presented at BFRP Contributory Conference,
1980, by Dr. Azizur Rahman.

These figures indicate the magnitude of the problem and it becomes obvious that serious effort has to be taken to improve the quality of service particularly from the point of view of asepsis to make Voluntary Sterilization safe for our eligible fertile couples.

3. THE INFECTING ORGANISMS :

We have no reliable data in our cases but the following organisms are going to be the offending microbes responsible for most of the infections.

- a. AEROBIC GRAM+VE COCCUS
Staphylococcus Pyogenes.
Streptococcus.
- b. AEROBIC GRAM—VE BACILLUS
Esch. Coli
Pseudomonas pyocyaneas
Proteus vulgasis
- c. ANAEROBIC GRAM+ve Spore bearing Bacillus.
Clostridia tetani.
- d. STRICTLY ANAEROBIC GRAM—ve ORGANISMS
Bacteriodes

4. THE TYPE OF WOUNDS :

- a. Clean
- b. Clean contaminated.
- c. Contaminated.
- d. Dirty.

Most of the sterilization wounds in our program are going to be clean contaminated and contaminated wounds.

5. SOURCE OF BACTERIA CAUSING WOUND SEPSIS AND RECOMMENDED MEASURES TO MINIMISE WOUND CONTAMINATION :

To start the process of sepsis the wound has to be contaminated first by the pathogenic organisms from a source or resarvoir and then overcome bodies natural resitances.

The comon sources of infecting pathogenic organisms are :

- i. Client himself or herself.
- ii. Surgical team and Clinic Staff.
- iii. Air of the operation room.
- iv. Instruments and drapings used for the operation (Fomite).

i. Outside hospital about 15-20 percent individual are nasal carriers of virutant Staphylococcus and the figure is almost double in hospitals. So the client herself may carry with her many organisms on her skin or in her nose and throat capable of causing sepsis. This has been estimated to cause fifty percnt of the Infectious.

Most if not all of these infectious can be prevented by the following measures :

- a. Screening out any client having obvious infection in her body. The same should apply when the child she is nursing is found infected.
- b. Thorough bath for the client with soap and running water followed by change into the new "Saree" she is entitled to get.
- c. Preparation of the operation area by Savlon In Spirit 70% or Iodine 1% in Spirit 70%

ii. Study has shown that organism from the heads of operating team cause about 6% infections their nose and throat cause another 14% infections. Therefore :

- a. Any member of surgical team having infection should be laid off.
- b. Proper masks and caps should be used by them and kept sterile.
- c. Scrubbing should be done for sufficient period of time with soap and running water.
- d. Wearing Sterile gloves and gowns during actual operation must be practiced.

iii. Air above the wound also causes considerable percentage of sepsis. To prevent that :

- a. The operation room should be located away from the main thoroughfare of the clinic.
- b. Doors and windows must have insect proof-wire netting.
- c. There should be separate foot wears for operation room and they must be used.
- d. No unnecessary person should enter the operation room.
- e. Operation room should be uncluttered by eliminating all unessential items.
- f. The operation room and its environ should be kept scrupulously clean by using wet mopping and NOT using dust raising "Jharoo".

iv. Instruments and drappings used for operation contaminate wound if not absolutely free of infecting organisms. This can be prevented by :

- a. Thorough washing of used instruments by brush with soap and running water followed by.
- b. Uninterrupted boiling for atleast 10 minutes for every lot of instruments and not allowing it to recontaminate before coming in contact with the wound.
- c. Linens used for operation needs proper washing, drying and a sterilization by steam under pressure in a simple autoclave for thirty minutes at 30 lb. pressure which generates over 132°C of temperature.

- d. Sharp Instruments are sterilized by prolonged immersion in chemicals like "Savlon" with the addition of antirust substance sodium nitrite.
- e. Suture materials like silk should be autoclaved. while catgut now a days are safe in their original packing.
- f. Water used for rinsing instruments and moistening swabs and sponges must be sterilized by boiling and then preserving carefully.

6. SURGICAL TECHNIQUE :

Operation like minilap involves opening up of peritoneal cavity containing hollow viscus.

Unnecessary rough handling of tissue leave plenty of devitalized tissue vulnerable to bacterial contaminations. Haematoma is also a good culture media. In spite of scrupulous aseptic care, injury to any hollow organ heavily contaminates the wound with various pathogenic organisms.

Therefore familiarity with the operation gained through experience coupled with respectful handling of tissue will help minimise the chance of infection.

7 ADVANTAGE OF BEING AWAY FROM ESTABLISHED HOSPITALS :

It is obvious that the makeshift arrangement where the vast number of sterilization operation would be undertaken, most of the wounds will be atleast in the category of clean contaminated.

But operation away from urban hospital has the advantage of the contaminating organisms being less virulent and remaining sensitive to most of the antibacterial drugs. So the routine use of antibiotics as planned has good points in its favour.

8. CONCLUSION :

To make the Voluntary Sterilization program a success, the quality of service has to be excellent for preventing various complications, the most important of which is sepsis of the wound.

Observing all the basic rules of asepsis conscientiously and relentlessly will help eliminating mortality & keep the rate of morbidity following sterilization operations due to wound sepsis within tolerable limits.

Equipment and Supplies Necessary for Voluntary Sterilization Procedures

COL. L. A. Khan.

It is said that the strength of a chain is that of its weakest link. This is as well applicable to the logistics component of any Family Planning Programme which can be a very vulnerable link in the management of the Programme. In Bangladesh, the problem of logistics is compounded by the difficulty in communications, particularly during the rainy season. We have, therefore, given high priority to the Planning, procurement and distribution of family planning supplies and equipment with a view to ensuring their uninterrupted availability at the field level.

Three Warehouses—a Central Warehouse at Dacca and two Regional Warehouses at Chittagong and Khulna—have been established where equipment and other supplies for the programme are stocked. The regional warehouses are responsible only for the supply of contraceptives and hence stock only contraceptive supplies. A fourth warehouse is expected to start functioning at Bogra in the near future, and with its establishment, each warehouse will cover five districts for purpose of supply.

The delivery of equipment and supplies for MCH and Family Planning including sterilization, is only as good as the logistics system. Field workers and paramedics in the villages, unions and thanas are dependent on an adequately functioning distribution system in order to supply the clients.

At the beginning of the First Five Year Plan the Population Control and Family Planning Division was concerned mainly with the distribution of contraceptives and a few training and informative materials. In 1976 a logistics system with a Supply Manual was developed and District Store-keepers were trained. By this time the newly constructed Central Warehouse (TEMO) has a fleet of ten trucks and five pick up vans. The logistics system laid down guidelines for procurement, storage and distribution of supplies with adequate inventory control. Supplies are procured through foreign assistance for direct import or through local purchase following the established government procedures.

Four distribution levels have been defined ; Central, District, Thana and clinic/field. The fifth level involves the utilization by the actual consumer. The system only generates supply distribution figures and not contraceptive prevalence or use figures. However, it is possible to relate use to supplies in order to maintain a proper balance and not to over supply districts which are not achieving targets.

The distribution system may be operated either by 'allocation' in which the quantity to be supplied is determined by the supplier or by 'indent or requisition' in which the quantity to be supplied is requested by the office receiving the articles.

At the outset the Logistics and Warehouse system principally supplied contraceptives on the allocation system determined by target set for each level. It was planned that the Central level would maintain one and two years supply. At the District level there should be 6 to 12 months supply. At the thana 4 to 8 months supply and clinics or field workers should have 2 to 3 months supply. Guidelines were set up for storage but often the constraints were the space availability. Rented quarters at the District are more flexible than the very small office space available in the TTDC where most thana offices are located.

The recent designation of the TH&FPA as responsible for supplies and equipment may make possible additional storage space at the THC. In the past, it was necessary for the thana level to transport supplies from the Districts, for which carrying costs are provided. However under study is the introduction of a system of direct supply to those thanas which are approachable by road.

With the transfer of the MCH service to Population Control and Family Planning Division and the arrival of more MCH Kits and D&Ds Kits, the logistics and delivery system had to expand. The inauguration of the 1977 Intensive Sterilization Campaign resulted in very rapid growth to reach MSR supplies directly to some 200 sterilization centres located in all districts.

MCH supplies are still distributed according to the allocation system on the basis of the number of FWCs functioning per district. Further more this was necessary because D&Ds kits were in short supply. There are now enough in country to provide 4 kits per FWC per year. Equipment to be provided for each newly constructed FWC includes at MCH Kit, IUD Kit, Midwifery Kit and additional instruments for general patients and emergencies care by the MA.

With institutionalization of the sterilization programme, standard lists of MSR for 100 vasectomies have been prepared. Thanas through Districts are encouraged to requisition or indent supplies. The same can also be done with MCH supplies, and special contraceptives such as Copper-T IUD, injectables and MR Kits. It is planned to provide all medical officers at District and Thana with supply lists so that regular Indents may be submitted for equipment and supplies required. This is particularly important for replacement of instruments for tubectomy kits such as surgical scissors, curved and straight and haemostatic forceps, curved and straight.

As soon as the printed stock list is circulated then this should be used to check the inventory (stock position) and make the new indent for the succeeding period. Inventory at thana and district should be checked quarterly and a report sent to TEMO. The stock position in the Districts, especially for items in short supply, is important to ascertain future requirements.

Medical officers whether posted at the district or the thana should become familiar with the equipment and supplies distributed through the Population Control and Family Planning Division so that in order to improve the functioning of the FWC, MCWC, or MCH/FP units at the THC, equipments, instruments medicines and contraceptives are supplied in adequate amounts and are properly utilized by paramedics and staff. Part of the physician's responsibility is to train and supervise staff in proper utilization and maintenance of equipment and supplies.

Special arrangements have been made in respect of supplies for the sterilization programme. Top priority is given to these supplies and Thanas are required to make weekly reports to their district office about any shortage anticipated by them. In such a case, they are required to obtain replenishments immediately from the District Office, and if for any reason the District Office is unable to make the supply, it passes request to the Central Warehouse in Dacca for sending supplies directly to the concerned Thana. Use of telephone and Police Wireless is made available to save time and ensure quick delivery.

Appended are lists of standard equipment and supplies for the FWC and for MSR for Vasectomy and Tubectomy as well as Drugs and Equipments to tackle complications. The equipments identified for use in emergencies are in process of procurement and as soon as these are received will be sent to the Centre established for clinical services,

As mentioned earlier, the problems of logistics in Bangladesh are many and of varied complexity. It will be an over-simplification to say that the system we have established has solved all these problems. However, progress has been made and some innovations have also been made to suit our special conditions. As we learn and improve the system, we hope to be able to run a reasonably smooth functioning system which will ensure timely delivery of supplies to our service points.

06

**List of Medicines and Surgical Requisites
for 100 cases of TUBECTOMY**

Sl. No.	Name of Item	Requirement of MSR for routine operation	Requirement MSR for follow-up	Emergency Medicines and Surgical Equipment	Remarks (New Regime)
1.	Inj. Atropine Sulph 1/100 gr. or 0.6 mg in 1 ml. amp.	110 ampoules		1. Inj. Lethidrone 10mg,*** 2cc amp. x 25	***Replaced by MARCAN 0.4 mg. in 1 ml. amp x 25
2.	Inj. Phenergan 50mg. in 2 ml.	110 ampoules		2. Inj. Phenergan 50 mg. 2cc amp. x 10	Phenergan 25mg. in new regime
3.	Inj. Pethidine HCl 50 mg** amp	120 ampoules		3. Inj. Adrenaline 1:1000 1cc amp. x 10	Dose Pethidine** reduced to 50 mg. per case
4.	Inj. Seduxen (Diazepam) 10 mg. in 2 ml.	125 ampoules***		4. Inj. Solucortef 100mg. amp. x 10 amp.	***Replaced by Diazepam Tab. 10mg. x 125 tab.
5.	Lidocaine 1% 50 cc. vials (Local anesthetic)	45 vials		5. Inj. Sodi. Bicarb. 7% 10 ml. amp. x 20	
6.	Rectified Spirit 1 lb. bottle	8 lbs.*		6. Inj. Calc. gluconate 10% 10 ml. x 5 amp.	*Replaced by SAVLON
7.	Tr. Iodine 1 lb. bottle	8 lbs.*		7. Inj. Aminophylline 250mg. 10 ml. amp. x 10 amp.	*Replaced by SAVLON
8.	SAVLON Hospital Concentrate (or Cetrimide 40% Solution)	5 Litre Jar	Savlion 1 lb.	8. Inj. 5% Dextrose in Saline 500 cc x 30 bags	Emergency Equipment
9.	Catgut Chromic "0" x 60"	110 pieces		9. Inj. 5% Dextrose in Saline 500 cc x 10 bags	Oxygen cylinder with Oxygen, flowmeter 2 cylinders
10.	Catgut Plain "0" x 60"	50 pieces		10. Inj. Glucose 25%- 10 ml x 5 amp.	Ambu Bag (resuscitator)
11.	Silk Thread (replaces CCG for skin)	5 rolls		11. Inj. Ergometrine maleate 0.2mg. 1 ml. amp. x 10 amp,	Airway x 2
12.	Gauze	5 Thans	Gauze 1 Than		Manual Suction
13.	Surgical Blades	20 pcs.			
14.	B.P. Handles	4 pcs.			
15.	Cutting curved needles	20 pcs.			

List of MSR for 100 cases of Tubectomy

Page No. 2 Appendix-X

Sl. No.	Name of Item	Requirement of MSR for routine operations	Requirement MSR for follow-up	Emergency Medicines and Surgical Equipment	Remarks
16.	Round curved needles	10 pcs.			
17.	Cutting strgt. needles	10 pcs.			
18.	Hypodermic Syring 10 ml.	10 pcs.**			
	" 5 ml.	5 pcs.*****			*****Replace 5 ml. with 2 ml.
19.	Hypodermic Needles 20G x 1½	2 doz.			
	22G x 12	2 doz.			
20.	Adhesive Tape 2"x5 yds	7 rolls			
21.	Surgical Rubber Gloves Size 6½ and 7	75 pairs		Adhesive Tape 5 Rolls	
22.	Glove Powder	2 lbs.			
23.	Absorbent cotton	5 lbs.			
24.	Shaving Blades	50 pcs.		Absorbent cotton 1 lb.	
25.	Safety Razor	4 pcs.			
26.	Tetracycline Caps.	2200 caps.		Ampicillin or other***** Broad spectrum antibiotic for 10% resistant cases 200 caps.	*****TH & FPA authorize to purchase drugs not stocked
27.	Multivitamin/Iron Caps.	1200 caps.		Multivitamins 1000 caps.	
28.	Paracetamol	1500 Tabs.		Paracetamol 600 tab.	
29.	Antespasmodic (Buscofan)	1000 tab.			
30.	Cough Expectorant	25 bottles (4 oz.)			
	For Urine Test				
a)	Acetic acid 5% 1 lb.	1 lb.			
b)	Benedict's Solution 1 lb.	2 lbs.			
c)	Methylated spirit	5 lbs.			
	Hemoglobin				
	Talquist book				

21

22

List of Medicines and Surgical Requisites for 100 cases of Vasectomy

APPENDIX—XI

SL. NO.	Name of Item	Requirement MSR for routine operation	Requirement MSR for follow-up	Requirement of emergency medicines/supplies	Remarks
1.	Lidocaine 1% 500cc. vial (or equivalent — i.e. Planocaine).	20 vials		1. Inj. Phenergan 50 mg. amp. x 10 amps.	
2.	Tr. Iodine 1 lb. bottle	2 lbs. **		2. Inj. Adrenaline 1 : 1000 x 10 amps.	
3.	Rectified Spirit 1 bottle	2 lbs. **		3. Inj. Solucortef 100 mg. x 10 amps.	
4.	Savlon or (Cetrimide 40%)	1 jar		4. Inj. 5% dextrose in N/saline 500 cc bags x 20	
5.	Gauze	4 than	1. Gauze 1 than		
6.	Cotton, Absorbent	4 lbs.	2. Cotton 2 lbs.		
7.	Surgical Blades	20 pcs.			
8.	Needle, Surgical Straight cutting	10 pcs.			
9.	Catgut Chromic '0' x 60"	60 pcs. (5 doz.)		5. Catgut plain '0' 60" x 20 tubes	
10.	Tetracycline Caps.	2200 Tabs.	3. Caps. Ampicillin or other broad spectrum antibiotic for cases resistant to Tetracycline		
11.	Tab. B. complex/or Multivitamins/Iron	1500 Tabs.	4. Tab. Paracetamol 600 tabs.		
12.	Tab. Analgesic (Paracetamol)	1000 Tabs.	5. Multivitamins/Iron or Tab. B complex 1000 tabs.		
13.	Tr. Benzoin	2 lbs.			
14.	Safety Razor	4 pcs.			
15.	Shaving Blades	50 pcs.			
16.	Adhesive Tape 2" x 5 yds,	5 rolls	6. Adhesive Tape 2"x 5 yds		
17.	Hypodermic Syringe 5 cc	5 pcs.	2 rolls		
	Hypodermic Syringe 10 cc	10 pcs.			
18.	Hypodermic Needles				
	22G x 1/2"	2 doz.			
	25G x 1/4"	2 doz.			
19.	Surgical Rubber Gloves.	40 prs.			

**Equipment For Family Welfare Centres
Non Expendable Equipment.**

Item	Description	Quantity Per centre
1.	Drum, Sterilization, for 0155000 sterilization 340mm	2
2.	Stove, Kerosene Burners (single) Pressure type	2
3.	Jar needle or ointment, W/cover and handle, 240 ml.	1
4.	Tumbler, 200 ml/8 oz ss	3
5.	Urinal, male, 1.6 Ltr (upright model) ss	1
6.	Aspirator, nasal, infant size 30 ml.	2
7.	Bag, hot water and lec combination 2 Ltr (rubber)	1
8.	Cup, Medicine,, 30 ml (Polypropylene)	5
9.	Jar, thermometer with cap, polypropylene	9
10.	Pail, diaper with cover, 11-15 Ltr. Polypropylene	1
11.	Pump, breast, hand, rubber bulb and glass bell	2
12.	Scale, infant, spring salter type, hanging (without trousers)	2
13.	Sterilizer, dressing, pressure cooker	1
14.	Stove, Kerosence 4 burner roarer pressure	1
15.	Tube, stomach Faucher 22 Fr 1.52 m long	1
16.	Tourniquet, gum rubber 910 mm	3
17.	Bush' nursing bottle 300 mm long	3
18.	Box, (metal) 165x 90 x 27 mm for minor surgery items.	1
19.	Suture, nylon monofil. sterile 000 USP 760 mm	6
20.	Suture, silk, black, set of 3 sizes	6 sets.
21.	Vision testing chart, Snellen illiterate	1
22.	Hammer, reflex testing, Tayler, solid rubber head	1
23.	Otoscope set, Complete with diagnostic head	1 set.
24.	Speculum, nasal, Beswerth wire ss	1
25.	Speculum, nasal, child size 140 mm vienna Pattern	1
26.	Airway, Lumbard, metal, adult size	1
27.	Airway, Lumbard, Metal, Child size	1
28.	Forceps, dissecting, curved type CVD fine 115 mm	2
29.	Sphygmomanometer, mecurial 300 mm Desk type	1
30.	Stethoscope, Ford type, binural complete	2
31.	Forceps, ear, angular Wilde 125 mm ss	1

Item	Description	Quantity Per centre
32.	Forceps, Placenta, curved, Willet 190 mm ss	1
33.	Forceps, Placenta, SI curved Kelly, 300 mm ss	1
34.	Forceps, Tissue, Fenestrated Jaw, Cellins baby ss	2
35.	Forceps, Tissue, Spring type 1X2 teeth, SEMKNS ss	2
36.	Holder, needle, 200 mm brand jaw, Mayo - Hegar ss	1
37.	Knife handle, surgical, Major surgery	2
38.	Knifblade, surgical 22 Pkts.	2 Pkts
39.	Needles, sture, 6 each of 8 types, 15 mm	1 set.
40.	Probe, general oparating, flexible With eye, 115 mm	2
41.	Probe, uterine, 290 mm chrome plated	2
42.	Scissors, Opisiotomy, angular, Braun 140 mm ss	2
43.	Scissors, surgical, curved, 140 mm short/blunt ss	2
44.	Splint, Multipurpose, set of 3	1 set.
45.	Undine Dropper (eye irrigator) 60 mm glass	2
46.	Retractor, vaginal, medlum blade, 32x80 mm Sims ss	2
47.	Retractor, vaginal, small blade 25x63 mm Sims ss	2
48.	Syringe, Hypo, insulin, 1 ml/40-80 units, Luer glass	2
49.	Syringe, Hypo, 10 ml, Luer glass	6
50.	Syringe, Hypo 50 ml Luer glass	2
51.	Syringe, Hypo, 5 ml Luer glass	12
52.	Syringe, Hypo 2ml Luer glass	4
53.	Forceps, tooth extracting, SSW/101 ss	1
54.	Rack, test tube, 12 tubes, wood	1
55.	Brush, test tube, small, 13 mm bristled, diameter 230 mm	1

MINILAP KIT (TUBECTOMY)

<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QTY</u>
Instrument Pan and Cover 12-3/4" x 10 1/2 x 4"	each	1
Control Syringe (10cc luer-lok)	each	1
Forceps, Dressing 5 1/2"	each	1
Forceps, Tissue 5 1/2"	each	1
Forceps, Mosquito, curved 5"	each	4
Forceps, Artery 6 1/2"	each	1
Forceps, Uterine 9 1/2"	each	1
Forceps, Tissue, Babcock 7-3/4"	each	2
Handle, Surgical Knife	each	2
Needle Holder Broad Jaw 7"	each	1
Needles, Skin Suture, strgt, Triangular Point	pkg.	1
Needles, Taper point, 1/2 circle size 6	pkg.	2
Scissors, operating, straight 6"	each	1
Scissors, curved, 7"	each	1
Speculum, vaginal, medium Graves	each	1
Forceps, Artery 7-3/4"	each	1
Blades, Surgical, Size 15	pkg.	4
Syringe, Hypodermic 10cc.	each	2
Catheter, Urethral, Female 14 Fr.	each	1
Elevator, Uterine	each	1
Tubal Hook	each	1
Needles, Hypodermic, 22 G.	each	6
Retractor w/Blades	set	2

VASECTOMY KIT

	Quantity	Unit
1. Instrument pan and cover S/S, 12 3/4", x 6 3/4" x 4" with metal latch.	1	ea
2. Clamps, Towel Backhaus, 3 1/2"	4	ea
3. Control syringe, Luer Lok, 5CC	1	ea
4. Forceps, curved, 5 1/2" box - lock	4	ea
5. Forceps, Allis intestinal, standard pattern box - lock, 6", 5 x 6 teeth.	2	ea
6. Forceps, Kelly, artery, straight 5 1/2"	2	ea
7. Handle, surgical knife, No. 3	1	ea
8. Holder, Needle, Collier, box - lock, 5"	1	ea
9. Needle, Keith abdominal, triangular point, straight, 2 1/2" (6 needles per package).	1	dz
10. Needles, Mayo, 1/2 circle taper point, regular eye, size 6 1/2. (6 per package).	2	pk
11. Needles, hypodermic, 22 gauge, 1/4" long reusable (12 per package).	1	pk
12. Needles, hypodermic, 25 gauge, 1/4" long reusable (12 per package).	1	pk
13. Scissors, Knapp Iris, 4", curved.	1	ea
14. Syringe, hypodermic, Luer-lok, 5 C.C	4	ea
15. Scissors, suture, blunt and blunt, 4 1/2"	1	ea.

MCH CENTRE BASIC EQUIPMENTS

Scale Physician Avoirdupois 350 Lbs x 1/4 Lb.	Each	1
Scale Infant Avoirdupois 30 Lbs x 1/2 Oz	Each	1
Sterilizer Instr. Boiling Type 32117x10 cm Fuel	Each	1
Basin Kidney 475 ml (16 oz) Stainless Steel	Each	2
Basin Kidney 825 ml (28 oz) Stainless Steel	Each	2
Basin Solution Deep Approx. 6 Litre S.S.	Each	2
Bowl Sponge 600 ml Stainless Steel	Each	4
Cup Solution 170 ml Stainless Steel	Each	2
Irrigator 1.5 Litre W/Side Spout Stainless Steel	Each	1
Jar Dressing With Cover 2130 cc Stainless	Each	2
Measure 500 ml with Handle Graduated ozs ml	Each	1
Tray Instrument/Dressing 310x 195x 63 mm Covered ss	Each	1
Catheter Rubber 14 fr Nelaton Solid Tip one Eye	Each	2
Connector Straight Nylon For 6 to 8 mm id Tubing	Each	2
Gloves Surgeons Latex Size 7	Pair	3
Sheeting Plastic Clear Vinyl 91 cm Wide	Yrd	3
Shield Nipple Glass Shell Rubber Nipple	Each	5
Syringe ear and Uncer 90 ml Conical Rubber Tip	Each	1
Syringe Rectal Infant 30 ml Rubber Bulb Hard Tip	Each	1
Tube Rectal Rubber 20 Fr 50 cm one eye Funnel End	Each	2
Tube Rectal Rubber 24 Fr 50 cm one eye Funnel End	Each	1
Tubing Latex Rubber for Irrigators Lgth 142 cm	Each	2
Dropper Medicine curved Tip Ungraduated	Each	6
Thermometer Clinical Oral Fahren 95 to 108 F Each	Each	3
Thermometer Clinical Rectal Fahren 95 to 108 F	Each	3
Brush hand Surgeon's white Nylon Bristles	Each	2
Duster Hand with 53 cm Extension (Dust Gun)	Each	1
Lancet Straight Hagedorn Suture Needle 75 mm Long	Each	6
Stone Oil Arkansas 50x19 x 6.3 mm	Each	1
Suture White Cotton Oousp Non-Sterile 91 m	Spl	1
Tape Measure Vinyl Coated Fiberglass 150 cm 60	Each	1
Tourniquet Web Usa Type 2.54x91.44 cm	Each	1
Urinary Test Set Complete	Set	1

MCH A CENTRE EQUIPT BASIC (AVOIR-FAHR-LUER)

Depressor Tongue Metal 16.5 cm Long	Each	3
Pelvimeter Collyer Graduated in inches and cms	Each	1
Sphygmomanometer Mercurial 300 mm Desk Type	Each	1
Stethoscope ford type Binaural Complete	Each	1
Stethoscope foetal Pinard Monaural	Each	1
Catheter Urethral Female Metal 12 Fr	Each	1
Forceps Dressing 15 cm Spring Type ss	Each	2
Forceps Hemostat Straight 140 mm Kelly ss	Each	2
Forceps Sponge Holding Straight Serrated Jaws ss	Each	1
Forceps Sterilizer (Utility) 21 cm Vaughn ss	Each	1
Knife Handle Surgical No. 3 for Minor Surgery	Each	1
Knife Blade Surgical Detachable No. 10 Pack of 5	Pkt	1
Knife Blade Surgical Detachable No. 11 Pack of 5	Pkt	1
Knife Blade Surgical Detachable No. 12 Pack of 5	Pkt	1
Needle Hypo 0,70x38 mm Reg Bevel Luer Box of 12	Box	1
Needle Hypo 0,55x19 mm Reg Bevel Luer Box of 12	Box	2
Needle Hypo 0,90x38 mm Short Bevel Luer Box of 12	Box	1
Needle Suture Surge Reg 3/8 Circle cvd Traing pt	Pkt	1
Scissors Bandage 182 mm Angular Lister ss	Each	1
Scissors Gauze 215 mm Sraight Sharp/Blunt Points	Each	1
Scissors Operating 140 mm Staight Sharp/Blunt ss	Each	2
Speculum Vaginal Bi-Valve Small Graves ss	Each	1
Syringe Hyponermic 2ml Luer all Glass	Each	3
Syringe Hypodermic 5ml Luer all Glass	Each	2
Syringe Hypodermic 10 ml Luer all Glass	Each	2
Clamp Tubing Regulating Hoffman 13x 19 mm	Each	2

EMERGENCY DRUGS AND EQUIPMENTS**Emergency Kit.**

Hypodermic syringe	10 ml. x 2	Catheters
Hypodermic syringe	50 ml. x 1	M.R. Syringe
Hypodermic needles	22 G x 1" x 6	
Tourniquet		
Inj. Narcan (Naloxone)	0.4 m. g par 1 ml. x 5 amp.	
Inj. Lethidron	10 mg/1ml, ampoule x 2 amp. (Use If NARCAN not available)	
Inj. Epinephrine (Adrenaline)	1 ; 1000 1 ml. ampoule x 3 amp.	
Inj Solu-cortef	100 mg. ampoule x 5	
Inj. Sodium bicarbonate	7% solution ; 10 ml. ampoules x 20	
Inj. Calcium gluconate	10% solution 10 ml. x 2 amp.	
Inj. Aminophylline	250 mg. x 2 amp.	
Inj. Phenergan	50 mg. per ml. x 2 amp.	
Inj. 5% Dextrose in saline	500 ml. x 3 bags	
Inj. Glucose 25%	10 ml. x amp.	

EMERGENCY EQUIPMENT

- Oxygen cylinder with oxygen with reducing valve and flowmeter
- * Suction machine, manual or foot-operated Ambu-bag (Resucitator)
- Airways no 2 and no 3, of each size
- * In the absence of a suction machine, the emergency kit should Contain an M. R. syringe and several catheters.

Patients' Monitoring and Cardio Pulmonary Resuscitation (C.P.R.)

Prof. A. Quader.

Recent study in performing tubectomy operations has shown that safer anaesthetic practice can be achieved by providing good analgesia with little sedation and hypnosis along with local anaesthesia. The present regime of anaesthetic technique such as oral Diazepam-45 min before operation and I.V. injection of Atropine, Phenergan and pethidine in the operation Theatre practically gives no complications. Still we may have some respiratory and Cardiovascular Complications for which every doctor must have sufficient knowledge to deal with them.

Every sterilization centre must have emergency equipments and medicines to deal with the complications.

We must have :-

- a) Oxygen cylinder-full-with reducing valve, flowmeter and Oxygen key.
- b) Suction apparatus.electric or foot controlled.
- c) Airways-no. 2 and no. 3 size.
- d) Resuscitator-Amбу or Viva bag for ventilating the lungs.
- e) Medicines-Narcan 0.4 mg/ml ampoule or Iethedrane 10 mg amp Solu-cortef or oradexan, Dextrose Saline 5% sol. Sodibicarb 7½% solution-100 cc.

To minimise complications, every patient is to be screened before operation for any disease of respiratory, Cardiovascular systems, any liver or renal disease, and diabetic condition.

Since we are using a number of drugs for anaesthetic purpose, so the question of monitoring comes in.

Monitoring : Monitoring in the true sense needs sophisticated electronic equipments with warning devise, so that any abnormality arising in the patient can be immediately attended. But in tubectomy operations, we do simple physiological monitoring—such as recording of pulse, respiration and blood pressure. This monitoring is to be started right from the period of Administration of drugs every 15 minutes before

operation, every 5 minutes during operation and every 15 minutes after operation for at least 2 hours

C. P. R.

The question of Cardio pulmonary resuscitation comes in when there is respiratory or Cardiovascular complications due to administration of anaesthetic drugs.

C. P. R. involves three basic rescue skills - A. B. C.

A-Airway, B-Breathing, C-Circulation.

Respiratory depression or apnea may occur after use of I. V. pethidine.

As soon as there is apnoea or respiratory depression resuscitation of respiration is to be undertaken immediately when there is no breathing of the patient-we consider A and B of rescue skills.

A—Airway—Air passage is to be cleared mucus or any vomitus with the help of sucker or swab, the jaw is to be held forward and upward by placing fingers behind the angle of mandible to prevent falling back of tongue. In many cases clearing of Airway helps in regular breathing of the patient.

If the patient is not breathing-then breathing of the patient is to be taken over by the operator. The operator listens for the patient, breathing and looks for any movement of the chestwall.

If there is no breathing-resuscitation of respiration can be done by—

- i) Mouth to mouth breathing.
- ii) Ventilation of the lungs with Ambu or viva bag. When there is no emergency equipments-simple mouth to mouth breathing helps in starting respirations. The operator, first of all ascertains whether the patient is breathing or not. If there is no breathing-the operator keeps the patients' head tipped-neck extended, nose pinched to prevent any escape of air through nostrils. The operator then takes a deep breath opens his mouth wide and covers patients mouth and gives four quick big breaths as fast as possible. This allows expansion of lungs fully giving a lot of oxygen to the patient. After giving 4 quick breath-the operator looks for any chest movement of the patient. If the breathing has not started in the patient-the operator repeats the process.

Ventilation of the lungs : With Ambu or Viva resuscitating bag.

The air-passage is cleared of mucus or any comitus with the help of sucker or swab, the jaw is held forward and upward-one proper size pharyngeal airway is put in the patient then face mask of resuscitating bag is properly placed over the patients face and ventilation of the lungs is cured on 16 to 18 times per minute.

Circulation : When there is no breathing in the patient, patient's carotid pules is to be felt. If there is no pulse-immediately extrathoraine cardiac massage is to be started.

Extra thoraine Cardiac massage.

The patient is placed in a hard table, or on the floor. The operator stands on knees by the side of the patient. Extrathroine cardiac massage can be done either by one rescuer C. P. R. technique or two rescuer CPR techniques.

In one person C. P. R. technique-the operator first of all gives 4 quick breaths to the patient-then does cardiac massage. The operator places heal of left hand over the lower part of sternum about 2 inches above the xiphisternum and then places heal of right hand over the heal of left hand being careful not to use fingers in massage technique. The operator then does the cardiac massage 80 times per minute-giving sufficient pressure so as to compress the sternum, 2'' downwards to press the heart against the vertebral column. The operator exerts pressure from the waist keeping arms and hands straight over the patient's chest wall. The operator-after 15 compressions of chest wall-gives two full breaths to the patient. This procedure is continued till the patient breathe and heart starts beating-As soon as heart has started beating and respiration has been established-CPR is to be discontinued.

In two rescuer CPR-One person compresses the chest wall 60 times per minute and other rescuer gives one full breath after every fifteen minutes compression. We must keep in mind that cortical cells of the brain can atand Oxygen lack for three minutes so the heart and respiration must be revived within three minutes. Every second is valuable for resuscitation of heart and lungs-not a single second is to be lost when then there is no pulse and respiration.

Along with extrathoraine cardiac massage and ventilators of lungs-I. V.— Dextrose saline drop, solucortef or ordexun I. V. and Sodibicarb 7½%— 100 cc I.V. to neutralise respiratory acidosis is to be undertaken.

MANUAL FOR STERILIZATION OPERATIONS

Dr. Shafiqur Rahman
Director,
Bio-Medical Research and Training,
NIPORT, Dacca,

1. Introduction

- 1.1 **Surgical contraception or sterilization means the interruption of reproductive capability for purposes of fertility termination. In the case of the female, the ligation and excision of a segment of each oviduct has no effect on the normal functioning of the ovary this procedure is known as "tubectomy" or "tubal ligation". In the case of the male, ligation and excision of a segment of the vas deferens has no effect on testicular function --this procedure is known as "vasectomy".**
- 1.2 **The particular areas which have been pinpointed for especial emphasis are patient selection, counselling, informed consent, aseptic technique, a new regimen for analgesia and local anaesthesia including patient monitoring and emergency measures such as cardio-pulmonary resuscitation.**
- 1.3 **With the training of more physicians to perform sterilizations and the opening of four mini-sterilization centres in every thana, this MANUAL has been prepared to clearly establish minimum standards for ensuring quality care.**

2. Minimum Medical Standards for Programme Components

- 2.1 **A comprehensive voluntary sterilization programme must have the following components**
 - Information and Counselling
 - Informed consent
 - Medical Screening and Pre-operative Assessment
 - Surgical procedure
 - Post-operative Care
 - Post-operative Follow-up
- Information and Counselling**
- 2.2 **A prospective client for voluntary surgical contraception must be provided with all of the information necessary to make a reasoned, non-coerced decision to terminate his/her fertility. The information must be provided in the language and terminology the client best understands.**
 - 2.3 **Information and counselling must be provided by a doctor, trained paramedic, other health and family planning field worker, or social worker who is trained for this task. No matter who does the counselling,**

the doctor (surgeon) has the responsibility to review the informed consent with the client to be sure that he/she understands clearly what is involved in the decision.

2.4 Temporary methods of contraception must be made available at the sterilization centre to :

- a. Those Individuals who decide not to proceed with the voluntary sterilization.
- b. Those who are judged by programme policies to be ineligible for other reasons such as age, number of children (younger child under one year when requesting operation after only two children).
- c. Those with physical or other complications as determined by a qualified physician.

No one should leave the centre unprotected.

2.5 The initial information and counselling sessions prior to surgery must provide the following :

- a. Description and discussion, of both temporary and permanent methods of contraception, with special attention to their benefits and risks, success and failure rates.
- b. Special attention to the intended permanency of all sterilization procedures.
- c. Discussion of the nature of the surgical procedure and of the anaesthesia to be used, including specific information as to what the possible operative and post-operative complications and side effects may be, as well as the possibility of failure of the operation (subsequent pregnancy).
- d. Clients must be prepared for effective local anaesthesia.
- e. Assurance that withholding or withdrawing consent at any time prior to the operation will not prejudice future care, and will not result in the loss of other programme benefits to which the client might otherwise be entitled.

2.6 The client should have the option of being accompanied by a companion who is also free to ask questions.

Informed consent

2.7 After the counselling session when the client voluntarily wants to undergo voluntary surgical contraception, the Informed Consent must

be presented to her/him and carefully explained before the client is asked to sign or to affix his/her thumb impression. (See History Form In Appendix I.)

- 2.8 Voluntary informed consent is considered to be achieved when :**
- a. The individual presents at the sterilization centre after choosing freely to do so, having been offered no undue inducement or incentive, nor having been subjected to any force, fraud, duress, or other form of constraint.
 - b. The individual is capable of understanding, and, in fact, does understand the nature and effects of the sterilization operation requested.
 - c. In exceptional circumstances this patient may be informed that there is a possibility of reversal of sterilization with moderate chance of success.

3. Medical Screening and Pre-operative Assessment,

3.1 The prospective clients for voluntary surgical contraception must be assessed to determine their physical and emotional fitness for surgery in general and for surgical contraception in particular. Sterilization is an elective procedure and surgery should not be performed on a medically high risk client.

3.2 Medical History.

- a. Detailed information should be very carefully obtained from the client and recorded on the Client History Form in order to exclude medically high risk patients. (See Client History Form, Appendix 1.)
- b. Physical examination by a physician or trained paramedic must be made and findings recorded on Client History Form.
- c. Laboratory Examination.
 1. Hemoglobin estimation.
 2. Examination of urine for glucose and albumin.

3.3 Contraindications to sterilization may be (a) Social and (b) Medical,

- a. Social contraindications.
 1. Client must be married.
 2. Have no less than two living children and the age of the last child should be one year or more.
- b. Medical Contraindications.

1. Mental or physical illness.
 2. Acute febrile illness.
 3. Jaundice.
 4. Anemia with hemoglobin less than 45% (7 gm).
 5. Chronic systemic disorders such as TB, diabetes, hypertension heart disease, asthma, and blood dyscrasias.
 6. Skin conditions involving the operative site.
 7. Pelvic infection, Inflammation or adhesions.
 8. Pregnancy (sterilization may be done after M. R. in early cases).
- c. Hypertension, diabetes, anaemia or albuminuria are not contraindications since pregnancy is more dangerous in such cases. But it would be wise not to operate on clients suffering from a moderate degree of the above conditions. Such clients should be referred for treatment and possible operation.

3.4 Minimum requirements for surgical procedures: When minilap tubectomy is performed on an inpatient or outpatient basis, the following operating conditions must be met :

- a. The operation Theatre must be equipped with appropriate surgical instruments, sterile gloves, and emergency backup equipment under aseptic conditions.
- b. The sterilization operation must be performed by a trained medical practitioner who has the necessary expertise to deal with any immediate complications.
- c. A trained nurse or paramedic is required to assist the operating surgeon in the O/T.
- d. A second paramedic is required to monitor vital signs such as blood pressure pulse and respiration during the operation.

3.5 Post-operative Care

Accommodation for overnight stay at the sterilization centre must be available for tubectomy cases. After the minilap operation, the client should be transferred to the ward area where :

- a. She must be observed by a trained paramedic and must have her vital signs recorded on the Client History Form every 15 minutes for the first hour and subsequently every four hours until recovery.
- b. The paramedic must not leave the centre until she is fully stable.

- c. The patient will be discharged from the centre by the doctor.
- d. She must receive post-operative instructions on problems which may arise after discharge. She must be told how to care for the incision and whom to contact in case of emergency or where she should go for treatment.

3.6 Post-operative Follow-up

At least one follow-up examination for a minilap client is a must.

- a. The follow-up examination should be about one week after the operation and where possible, the results should be recorded.
- b. The examination may be performed by a health and family planning field personnel other than a physician, but a physician must be available as a back-up.
- c. During the visit, the client must again be informed of the possibility of failure of the operation (unwanted pregnancy), with the stress on need for immediate follow-up if anorrhoea, pain or abnormal bleeding occur.
- d. Removal of stitches may be done by FWVs and even trained FWAs in the client's room.
- e. All complications which require medical attention will be referred to the Thana Health Complex for hospitalization or referral if necessary.

4. Facilities Required for Sterilization Operations.

4.1 Physical Facilities.

A minimum of three rooms* are absolutely required, although five areas are necessary. Patient reception may be arranged on a veranda or in a temporary shelter. There must be a tubewell, bathroom and a latrine.

- 1. Patient reception for counselling and history taking.
- *2. Patient examination room, including laboratory tests.
- 3. Pre-operative preparation.
- *4. Operation theatre.
- *5. Recovery room/post-operative care.

The OT must have windows for adequate light. Half curtains may be required and netting should be provided to protect against insects. Storage outside the OT space is required for mattresses, blankets, linens and mats.

4.2 Furniture.

- Patient reception - table, chairs and benches
- Patient examination room - IUD table or bed. Small side table or cupboard for instruments and laboratory supplies. Facilities for hand-washing. Area may also be used for pre operative scrubbing.
- Pre-operative Preparation - Cots. mattresses or mats for use on floor
- Operation Theatre - OT. Table (metal or wooden) and two side tables :
 - one for anaesthesia supplies and emergency kit and emergency equipment.
 - one for sterile supplies with trolley cover.
 - sterilizer, boiling with kerosene stove. Wash basin to clean instruments before reboiling.
- Recovery room - same as pre-operative preparation room. (If rooms are small, two may be required).

4.3 Standard Equipment For Sterilization Centres (Minimum).

a. Patient examination room.

- Thermometer
- Weighting scale
- B.P. Instrument and stethoscope
- History forms with informed consent
- Patient examination table or bed
- Tray for pelvic examination with gloves, speculum, torchlight with batteries, sponge forceps, cotton, savlon in solution cup
- Arrangement for water, soap and savlon solution
- Urine test set - Spirit lamp with methylated spirit
 - Kidney basin or bottle for urine
 - Acetic acid
 - Benedict's solution
 - Testtubes, testtube holder, testtube rack.
- Hemoglobinometer or Talquist book blotting paper
 - N/10 Hydrochloric acid
 - Lancet, cotton, savlon in solution cup.

b. Preparation of Patient

- Arrangement for water, soap, basin, bucket, towels
- Safety razor, blades
- Latrine

c. Sterilization of instruments and equipment

- Drums, covered trays for instruments and syringes.
 - Double cotton tray covers or trolley covers for making bundles.
 - Autoclave and Autoclave indicator tape (3MM)(where available).
 - Kerosene stove, with kerosene.
 - Boiling sterilizer, or large degchi with cover.
 - Wash basin, brush, towels to wash and dry instruments.
 - Working table for packing the instruments, etc.
- Storage space may be provided in this room.

d. Operation Theatre :

- Hand scrubbing area : Hand brushes, soap, water poured from jar or pitcher, bucket.
- Caps, masks, sandals (sponge) for all persons entering the O.T.
- Kerosene lanterns (Hazack) ; Large torchlight with 6 to 8 cells and spares.
- Operation Table with rubber or plastic sheet.
- Table for sterile field on which are located :
Sterile gloves, abdominal drapes, surgeons gowns, trolley covers,
Sterile Minilap kits ; sterile vasectomy kits ;
Ancillary instruments.
Sterile gauze, catgut, silk suture, cotton balls, Catheterers.
Tray with savlon or Lysol for sterilizing blades and scissors
Tray with sterile water.
- Table for anaesthesia with the following :
B. P. instrument and stethoscope. Emergency Medicine Kit *
Syringes, needles sterile, for anaesthesia. Cup with
Savlon solution and cotton balls. Tourniquet,
Leukoplast, scissors. Lifter in Savlon jar.
Airways, Ambu Bag, M.R. syringe and catheter for suction.
Anesthesia drugs for both Old and New Regime.
Lidocaine 1% solution in 50 ml vials.

e. Recovery Room/Ward Area :

- Cots, mattresses, cotton sheets, pillows with pillow covers :
blankets, mats for floor.
- B. P. cuff and stethoscope ; thermometers.
- Medications - Paracetamol, Multivitamins with iron and
tetracycline caps.

* Emergency Medicine Kit - See Appendix 4.

4.4 Personnel Required :

- a. Trained surgeon
- b. OT nursing sister or trained paramedic in charge of O.T. who will circulate during operations.
- c. Surgical assistant—MA or FWV
- d. Trained paramedic to monitor the patient's pulse, respiration and B. P. during operation and record vital signs on the history sheet.
- e. Trained paramedic to take history, check weight, temperature, B. P. and do pelvic examination.

She will be in charge of pre-operative medication and post-operative patient monitoring. She will see that the case history record follows the patient to OT and returns with the patient to OT and returns with the patient to the recovery ward.

- f. Peon, Mistri or OT technician to help with autoclaving and boiling instruments—under the supervision of the OT supervisor.
- g. Aya-Clean and scrub OT. "Jharu" is never to be used.
 - help female patient in bathing, shaving, putting on saree and voiding before going to OT.
 - attend patients in post operative ward.
- h. Health and family planning field workers - who come with patients may assist in history taking, in collecting urine and doing test under supervision of FWV.
- i. Male field workers—If present with referred clients may assist males in preparing for vasectomy.

The day before operation one trained paramedic is also responsible for preparing bundles, drums of linen and instruments, syringes and needles, gauze and cotton balls for autoclaving by the peon

5. Preparation of Sterile Supplies :

5.1 Preparation for surgery must include the following steps :

- a. Cleaning, scrubbing and disinfecting the OT.
- b. Preparation of sterile supplies by boiling, autoclaving and chemical sterilization.
- c. Preparation of the surgical team :
 - caps, mask, handscrubbing, gowning and putting on sterile gloves.
- d. Preparation of the operating field (Patient's skin, and draping.

- e. Technique for transfer of equipment from the sterilizer to the sterile field.
- f. Function of the circulating paramedic.
- g. Cleaning and reboiling instruments in the O. T. between cases
- h. Procedures carried out between cases and between tow operation tables in the same O.T.

5.2 Modalities for Sterilization of Surgical Supplies :

- a. Sterilization by steam pressure Autoclave.
- b. Sterilization by boiling
- c. Sterilization by chemical agents.

5.3 Types of Autoclave :

There are three types of autoclave supplied in the rural areas by FCFP Division :

- a. Sterilizer Dressing Pressure Cooker 350 x 380 mm/39L/Fuel. To be used with Kerosene pressure stove preferably with four burners. Water must be placed inside the bottom of the Pressure cooker to produce steam. Bundles or drums may be used.
- b. Vertical free-standing Autoclave SAB type. This comes with connections for three phase 440 V with 15 amp. line and main switch. It can be installed with single phase, but it is necessary to have a 30 amp. line and switch. This autoclave can be very efficiently used with the kerosene pressure 4 burner stove provided. It comes equipped with two baskets to hold bundles and small dressing jars and covered instrument trays. It has a spare gasket. It can also take drums. Water connection is ideal but the autoclave can be operated without plumbing by pouring in water from a pitcher.
- c. Sterilizer Dressing Pressure Vertical. 350 x 650 mm. 220 V was supplied to each of the Mobile sterilization teams to be installed at the District Headquarters.

5.4 Functioning of the Autoclave (For Detailed instructions, see Appendix 3).

Caution : The autoclave sterilizes by steam under pressure. Therefore instructions must be carefully followed to prevent

explosion. For this reason an autoclave must never be located in the OT. It must never be operated by an untrained person. The autoclave must have a steam tight chamber. At the bottom of the chamber there is usually an electric element which heats the water to make the steam. The lid is heavy and has a rubber gasket and a pressure meter. A pressur kerosene stove may be used for providing heat. What can go wrong :

- a. The chamber may leak.
- b. The heating element may not work.

(Electrical elements are usually damaged by carelessness of the autoclave operator. The most frequent cause is that enough water is not put in to cover the element).

Solution - always use enough water

- replace the element if it is damaged.
- substitute a kerosene stove as a heat source.

Large sized pressure stoves are best. Before using a kerosene stove the electrical element must be first removed unless you have a SAB autoclave which is equipped to be used alternately either with electricity or kerosene.

- c. The gasket can give problems. If it is not tight the steam will leak. Enough pressure will not be generated and sterilization will not be perfect. Spare gaskets are supplied with each SAB autoclave.
- d. It is essential that adequate pressure be maintained for at least 30 minutes. You can check the pressure by the pressure gauge outside the autoclave.
- e. Autoclave tape will be supplied to use as an indicator to confirm that the required temperature and pressure has been achieved. The tape also serves to indicate which bundles and drums have already been autoclaved. The tape can be marked with the date when it was autoclaved.

5.5 Boiling sterilizer :

- a. Degchi with cover. Fuel. Kerosene stove or "chula"
- b. Small covered sterilizers with tray are good for syringes and needles. (Fuel)
- c. Electric sterilizers with tray. (These were supplied to MST. They require a three phase power line.)

Note : Standard practice is to boil for 30 (thirty) minutes from the time the water begins to boil. In practice it is recommended

that 15 (fifteen) minutes from the time the water begins to bubble will be acceptable.

5.6 Chemical Sterilization for Sharp Instruments-Blades and Scissors

- a. **Lysol or Dettol Concentrate.** Immerse for 30 minutes. Wash in sterile boiled water or wipe dry before use.
- b. **Savlon Conc. 5 ml/1000 ml. boiled water ; soaked for 30 minutes.**
Cetrimide 40% 5ml/1000 ml. boiled water. Soak for 30 minutes.
For emergency sterilization :
SAVLON 1 ml/30 ml. 70% alcohol (rectified spirit) may be used.
Soak for 2 minutes.

Prolonged storage of blades in SAVLON will result in rusting unless sodium nitric tablets are added to the solution.

Lysol is preferable for prolonged storage.

E.7 Method of Sterilization of Materials :

i) LINEN

Surgeon's gowns
Abdominal Sheets
Vasectomy Sheets
Trolley Covers
Towels
Gauze and cotton

METHOD

Pack in bundles (double wrapped)
or in Drums

Autoclave

Time 30 minutes

Pressure 20 lbs.

Temp. 250° F. (120°C.)

ii) INSTRUMENTS

- a. Prepare sets for each case including 2 wrapped syringes 10 ml. and needles and scissors
- b. Between cases

METHOD

- a. Autoclave as for linens

- b. Boil for 15 minutes from the time the water begins to bubble.

NOTE : Additional instruments must not be added until the first batch is sterilized and removed.

SCISSORS AND KNIFE BLADES

DO NOT BOIL. (See 5.6 above
Chemical Sterilization.)

Method

iii) Rubber Goods

- a) Gloves must be washed, dried powdered and packed in pairs in glove covers

- a) Autoclave same as linen but only 20 minutes instead of 30 minutes.

Time : 20 Minutes.

Pressure : 20 lbs.

Temp. 250 F

b) Catheters

b Cleanse with Savlon 15 ml,
500 ml. boiled water.
Soak in Savlon 1 ml/200ml,
boiled water for 30 minutes.

iv) Syringes and Needles

Method

a) Wash dry and wrap individually in cloth or gauze.

a) Autoclave as for linens and instruments.

b) Boil in sterilizer with fenestrated tray.

b) Boil for 30 minutes.

c) Soak in SAVLON

c) If soaked in Savlon 5 ml/
1000 ml. boiled water, they
must be rinsed in sterile water
before using.

6. Analgesia, Local Anaesthesia and Patient Monitoring in Minilap Tubectomy :

6.1 Another area for special emphasis to assure quality service is the recommendation of the National Technical Committee for the introduction of a new regimen for analgesia and greater attention to the technique of local block anaesthesia. The present regimen may continue until all operating surgeons are trained in the new technique. A surveillance report indicated that a third of the reported operative mortality was due to overdose of analgesic agents combined with failure to monitor vital signs.

6.2 Preset regimen to be used in the absence of emergency equipment PETHIDINE is not to be given I, V.

Premedication : Phenergan 50 mg. | Given I.M. 45 minutes to one
Atropine 0.6 mg. | hour before operation,

Pre-operative : Pethidine 50 mg. to 100 mg. Given I. M. 30
minutes before operation.

(Note : Patient must void before receiving the I. M. analgesia since she will be too sedated to void later.)

Operative Analgesia : Diazepam 10 mg. I. V. slowly after the patient is on the O.T. table.

6.3 Monitoring :

- a. Pre-operative : B.P. Pulse and Respiration monitored and recorded every 15 minutes.
- b. Intraoperative : B.P. Pulse and Resp, monitored and recorded every 5 minutes during surgery.
- c. Post-operative : B.P. Pulse and respirations (check for free airway) monitored every 15 minutes for the first hour post operatively, and subsequently every 4 hours. These findings should be recorded on the history form.

6.4 New Regimen :

Pre-operatively : Diazepam (Seduxin) 10 mg. Tablet orally 45 minutes before operation

Operative Analgesia : Pethidine 50 mg.

Atropine 0.6 mg.

Phenergan (Promethazine) 25 mg.

I. V. in a single syringe

Give half the quantity and wait two minutes to observe for respiratory depression before continuing.

Note : For clients weighing 75 lbs or less, the dose is to be cut in half.

6.5 Steps for Local Anaesthetic Block

- a. Never use more than 20 cc 1% Lidocaine for any patient.
- b. Infiltrate the skin in the midline, moving to the left and right and up and down. This should be in the skin, not in the subcutaneous fat. Use 5 to 6 cc of 1% Lidocaine.
Wait 2 to 3 minutes before making incision.
- c. After skin has been incised, infiltrate the anterior rectus fascia with 2 to 4 cc of Lidocaine. Wait 1 to 2 minutes.
- d. Once fascia is open, infiltrate the posterior rectus sheath and peritoneum through the rectus muscle. Use 2 to 4 cc of Lidocaine and wait another 1 to 2 minutes.
- e. After peritoneum and posterior sheath have been elevated, infiltrate with 1 to 2 cc of drug.
- f. Open peritoneum. Flow 2 to 5 cc of Lidocaine into peritoneal cavity in the region of tubes without using needle on syringe (i. e. merely flow the solution over the pelvic organs). Wait 2 minutes and proceed with elevation of tubes.

- g. One may additionally infiltrate the mesosalpinx and tube with a small volume of drug. Experience indicates that this is seldom needed if the peritoneal surface has been adequately covered in step, f.

6.6 Emergency Instructions (To be presented as a Wall Chart)

a. Respiratory Depression from oversedation

- 1) Check airway for obstruction tilt head, push chin upwards, thrust jaw forward
- 2) Start mouth to mouth respiration; after 4 short breaths continue one full breath every 5 seconds.
- 3) Insert oropharyngeal airway
- 4) Start OXYGEN (15 litres/min) administered with Ambu Bag (resuscitator)
- 5) Give NARCAN (Naloxone) 0.4 mg. (1 ampoule) I. V. stat (If not available, give LETHIDRONE 10 mg. I. V.)
NARCAN acts promptly but may need to be repeated.

b. Cardiac arrest - Absence of Carotid pulse

- 1) Start CPR*** - (see section 6.7)
- 2) For ventricular fibrillation give CALCLUM GLUCONATE 10% 10cc. I.V.

c. Respiratory acidosis

SODIUM BICARBONATE SOL. 7%—10 ml. ampoules
Dose 40 to 50 ml. for treatment of metabolic and respiratory acidosis with hypoxia from shock or apnea.

d. Hypotension, shock

5% GLUCOSE in saline 500 cc. containing SOLUCORTEF 100 to 200mg. I.V.

e. Convulsions from local Anaesthetic

PHENERGAN 50 mg. (Given I.V. 25 mg. and repeat)

f. Anaphylactic Shock

ADRENALIN 1 : 1000 1 ampoule I. V.
SOLUCORTEF 100 to 200 mg. I. V. May give with 5% GLUCOSE in Saline 500 cc. I.V.

g. Asthma Pulmonary congestion

AMINOPHYLLINE 250 mg. per amp. Give one amp. slowly I.V.
ADRENALINE 1 : 1000 I.M.

*** See Appendix 5 and 6 for details of CPR and anaesthesia complications and management,

6.7 ABC of Cardio-pulmonary Resuscitation

- A - Airway
- B - Breathing
- C - Circulation

- AIRWAY**
- With patient in dorsal decubitus position
 - Tilt the head back
 - Thrust the jaw forwards
 - Push the chin upwards
 - This maneuver will prevent the tongue from obstructing the airway.

Mucus may be removed with a gauze covered finger, If too many secretions are present use suction. (Use MR syringe and catheter if no suction machine available). In case of vomiting, turn patient on the side and use suction.

- BREATHING**
- Lean over the patient with your head turned towards the patient's chest and place your ear within an inch of the patient's mouth and nose. Air movement can be felt and heard at the same time that chest movement can be seen. If there is no evidence of respiration begin MOUTH to MOUTH breathing:

First four breaths are given quickly. Then take a deep breath, pinch the nostrils of the patient tightly and force the air into the victim's lungs; rescuer removes mouth and the victim's chest is allowed to fall again, and again this step is repeated 20 times a minute. Rest after 5 minutes to see if the patient resumes spontaneous breathing.

If there is an Ambu Bag, an airway may be inserted and the Ambu Bag with Oxygen may be used to provide artificial respiration.

- CIRCULATION** - At the same time the rescuer must feel for the carotid pulse. If there is NO pulse, then external cardiac compression is to be started.

DO NOT ATTEMPT THIS UNLESS YOU HAVE HAD TRAINING IN CPR (See Appendix-5 for details).

7. Routine Procedures For Minilap Tubectomy

The minilap procedure using the Pomeroy technique is preferred. A uterine elevator inserted through the vagina can be used to

manipulate the uterus and bring the tubes into the operative field, but most experienced surgeons find it unnecessary. The operation is much more acceptable to the patient if vaginal manipulations can be avoided, but a pelvic examination must be performed as a part of the preoperative check up. Some surgeon also wish to repeat the vaginal examinations in the O. T. after the I. V. Analgesia has been given before preparing the abdominal skin and draping the patient.

7.1 Preoperative preparation

- The accepted client takes a cleansing bath with soap giving special attention to the abdomen and pubic region. A new saree is given.
- Shaving or clipping of abdominal and pubic hair is to be done by experienced personnel.
- No solid food for 6 hours and no liquids (except sip of water with medication) 4 hours before surgery.
- Blood pressure, pulse and respirations are recorded every 15 minutes after the pre-medication is given. Patient must void before premedication is given.
- Tetracycline is the prophylactic antibiotic used. Two capsules (500 mg) should be given at the time of pre-operative preparation.

7.2 Pre-medication

Use either the present or the new regime as outlined in Section 6.

- a) **Present regime :** Injection Phenergan 50 mg, Atropine sulphate 0.6 mg. and Pethidine 100 mg. is given I. M. 30 to 40 minutes before operation. With this regime it is necessary to carry the patient to the O. T. In the O. T. Diazepam 10 mg is given slowly after the client is on the O. T. Table. Repeat vaginal examination may be performed before preparing the abdomen and draping. If it is planned to use the uterine elevator, this is the convenient time to insert it after preparing the vagina with Savlon solution. Handle of the elevator may be loosely taped to the inside of the thigh. After draping, the handle can be grasped through the drapes and manipulated as necessary.

b) New Regimen :

Diazepam 10 mg. tablet is given orally 45 minutes before operation. The patient can be assisted to walk to the OT. On the Operation table, after again checking and recording vital signs, Phenergan 25 mg., Atropine 0.6 mg., and Pethidine 50 mg. are prepared in a single syringe and given slowly I.V. Give half the dose and wait two minutes before proceeding with the remainder. (With this regime the patient can also walk out of the OT with assistance.)

One paramedic must be assigned to monitor the B P. pulse and respiration every 5 minutes during surgery. The findings should be recorded on the client's history form.

7.3 Skin preparation, draping and position.

The patient lies on the O.T. Table in the dorsal decubitus position. The surgeon should take the opportunity to percuss the bladder before starting the skin preparation. If bladder is full, a catheter should be passed. This maneuver will avoid injury to full bladder during operation. The anterior abdominal wall and public area is cleansed with a solution of Savlon conc. 1 ml/1000 ml, boiled water or Tr. Iodine mitis and Rectified Spirit may be used. The abdominal drape is spread over the patient. In the absence of a Mayo table, a tray with instruments is placed on the thighs. For those operating tables which permit positioning, a 25° Trendelenburg position at the time of opening the peritoneum helps to keep the intestines and omentum from obstructing the operative field.

7.4 Local Anaesthesia

20 cc 1% Lidocaine infiltrated in layers as described in section 6.

7.5 Suprapubic Incision

In patients with a normal sized uterus, a transverse incision about 1-1/2 inches long is made an inch above the upper border of the public symphysis. If the uterus is enlarged as in post-abortal cases and postnatal cases, the incision is made about an inch below the level of the fundus of the uterus. The subcutaneous fat is incised with blunt gauze dissection and the shining rectus sheath can be seen. The sheath is also incised transversely. The cut edges of the rectus sheath are held by artery forceps. The attachment (taking care not to injure the inferior epigastric artery) to underlying muscle is split

in the midline and retracted laterally to expose the peritoneum. With pointed artery forceps the peritoneum is picked up taking care not to injure bowel or bladder. (These are the steps which need particular attention. It is very important to be sure that no injury has occurred and if present to recognize it and repair it quickly.) If the bladder is injured, a catheter—(preferably Foley catheter, if available)—should be inserted to permit constant drainage of urine to keep the bladder empty.

With the peritoneum elevated, a small nick with the broadest part of the scalpel blade is made between the forceps. Since there is a negative pressure inside the abdomen, a small opening into the peritoneal cavity will suck air in and thereby lift the peritoneum further from the underlying loop of bowel. The peritoneum is opened longitudinally. (Infiltration of the peritoneum with Lidocaine and flowing 2 to 5 ml. over the pelvic organs will facilitate manipulation of the tubes without disturbing the patient.)

7.6 Delivery and Ligation of Tubes

The index finger is inserted into the pelvic cavity and the pelvic organs are palpated. If the uterus is retroverted one can easily correct it. Place the finger on the posterior wall of the fundus and move it in either direction to feel the tubes. The tubes are soft, slippery and are quite long. With practice one can easily hook the middle part of the tube and elevate it up nearer the incision. When the tube is seen, it is grasped with a Babcock forceps.

Sometimes it may be difficult to deliver the tubes. In this case it may help to apply counter pressure to the surface of the anterior abdominal wall to assist in elevating the tube. Rarely two fingers are needed, one in front and one behind. Slipping the fingers sideways, the tubes can be grasped, one at a time, in between the two fingers. If the uterine elevator has been inserted previously, then the uterus can be brought up immediately beneath the incision by manipulating the elevator. The uterus can then be tilted left and right to identify the tube. Another maneuver which may be helpful is to have an FWW put on a glove and, under the drapes, insert her hand in the vagina and push the uterus forwards and upwards.

Whichever method is used, it is important to be sure that the Fallopian tube (oviduct) has been grasped and not the round ligament or some other structure.

The experienced operator will have no trouble with this, but if there is any doubt, it is a simple matter to identify the fimbriated end of the tube.

PATIENCE is very necessary, especially when the patient is awake. It is very important to be as gentle as possible since struggling with the patient will hurt her and she will strain and make the operation even more difficult. Talk calmly with the patient and reassure her. She will feel pressure but she should not feel pain. The modified Pomeroy technique of tubal interruption is preferred. A loop of tube is elevated and a tie of Plain 'O' Catgut at the base of the loop so as to include 2-3 cm of tube. The loop of the tube above the tie is then excised. It is important to use plain catgut if available, rather than chromic catgut. Never use silk or other non-absorbable suture material. If absorbable material is used, the cut ends of the tube will separate after absorption takes place. Some surgeons prefer to use the Plain catgut on a round needle and to transfix the mesosalpinx so that the ligature will not slip.

In those patients (young women with few children) where it may be necessary to do recanalization at a later date, the ligation should be done as close to the cornua as possible since this will provide better opportunity for recanalization.

7.7 Closure of the Abdomen :

- Peritoneum is closed with a continuous suture of chromic 'O' catgut.
- Rectus muscles are brought into apposition by interrupted plain 'O' catgut sutures, tied loosely because muscle is soft and friable.
- Rectus sheath is closed with interrupted chromic 'O' catgut.
- Skin is closed with interrupted 'O' silk sutures.
- Wound is covered with gauze and leukoplast is applied.

7.8 Post-Operative Care :

After the operation the client is brought to the post-operative area on a trolley, a stretch or simply carried by two persons. However, with the new anaesthesia regime she will be able to walk from the OT with assistance of two persons. In hot weather, or in cases where the operative procedure has been prolonged, it may be advisable to use I.V. glucose and saline in O.T. or post-operatively,

102

because severe dehydration may develop in fasting patients and acidosis may result with prolonged nausea and vomiting. One has to be vigilant against heat stroke (shock). Since the operation is done under local anaesthesia, no special care is required other than rest, recording vital signs (Pulse, Resp., B. P.) every 15 minutes for the first hour and then four hourly until discharge. Temperature should be recorded twice daily and the wound should be inspected for any signs of hematoma. Patients should be kept under observation for atleast four hours. Abdominal distention should be checked. A physician should be on call in the event of any abnormality. Food and drink is restricted until the nausea caused by the pethidine passes. As soon as the drowsiness is over, the client should be encouraged to walk and to go to the latrine to void as necessary. She must void before she can be permitted to return home. Usually clients remain in the centre overnight after the operation and leave for home the next morning. In the majority of cases regular meals can be taken after 6 to 8 hours post-operatively. Tetracycline 500 mg. (2 caps) will be repeated 6 hours after the first dose pre-operatively and will be repeated a second time the next morning. Paracetamol should be available for pain.

7.9 Instructions on discharge :

- a. Report immediately if there is excessive fever or pain, abdominal disturbance, discharge from the wound, or if skin rash or other allergic symptoms develop.
- b. Take the medicines as directed by the doctor 1) Tetracycline 12 caps will be given to continue one four times daily. 2) Multivitamins with iron x 20 to take once or twice daily. 3) Paracetamol x 6 tabs. One as necessary for pain.
- c. Return to the clinic for removal of the stitches and post-operative check-up between 7 to 10 days.
- d. Rest at home the first day.
- e. Normal light work can be resumed the following day, but patients should not lift heavy objects for 3 weeks.

7.10 Follow-up

The tubectomy case should be checked and followed-up during the first three days then on the 7/8th and 9th day. The stitches should be removed by the FWV or by a trained FWA under aseptic conditions. All tubectomized cases should be followed-up by visits

of the FWV/FWA and checked after 3 weeks, two months and 3 months and then at 3 monthly intervals for two years. Complaints such as pain, weakness, etc., should be attended to and in some cases, treatment may be required with Vitamins, Iron tablets, etc. In rare cases pregnancy may occur.

In complications and pregnancy, assistance from field worker, trained paramedic or Thana level officers should be sought immediately.

During post-operative visits, the FWVs/FWAs should devote time to immunization, health and nutrition of the children and the family as a whole. All patients must be followed-up and complications of any sort must be treated promptly and vigorously. FWAs and other PCFP staff are responsible not only to follow-up cases, but also to ensure that complications are treated. Any problem obstructing prompt treatment should be reported immediately to the TH & SPA who will take immediate action to correct the situation.

7.11 Long Term Advice :

In 96 percent of acceptors the post-operative period is uneventful. In less than 5 percent of cases, minor ailments such as wound swelling, discharge of stitch abscess may need additional care. Serious wound infection requiring surgical drainage is rare, but can occur and nothing is gained by delaying proper surgical treatment. When the wound is healed, the client is allowed to return to her normal routine. All patients are instructed to have a six and twelve months check-up.

8. Routine Procedures For Vasectomy :

There are various methods of vasectomy. The scrotal operation with two longitudinal incisions on either side of the upper part of the scrotum is recommended.

Special instrument for vasectomy is the Vasectomy forceps which is sharper than the Allis clamp and has only one tooth on each jaw. However PCFP Vasectomy sets contain Allis clamps as a substitute.

8.1 Pre-operative Medication :

- Tetracycline 250 mg. is started before the operation and given four times daily.
- Phenergan 50 mg. I.M or Diazepam 10 mg orally may be given to relax the client.
- ATS is not necessary and can be dangerous. It should not be used.

8.2 Pre-operative preparation :

The client should bathe and then his scrotum is cleaned with Savlon conc. 1 ml/100 ml. boiled water. After cleaning the scrotum, using sterile gloves, a vasectomy sheet is applied and the scrotum is delivered through a small hole in the sheet. No taping of the penis is required.

8.3 Identification and Isolation of Vas :

The Vas on both sides should be palpated carefully. The utmost gentleness is practised to handle this very sensitive part. Pain and discomfort at this will induce spasm of the cremaster and will cause retraction of the testicle making operation difficult. The Vas of the selected side is manipulated to isolate and fix it under the skin in the most suitable position for incision. The thumb and index finger of one hand maintains gentle traction of the testicle downwards and the corresponding fingers of the other hand are used to manipulate the vas to bring it upwards and laterally. This will bring the vas away from the other structures in the cord. The cord is held in this position and is now superficial; just under the skin and dartos muscle. In a thin person it can be seen clearly under the skin. This maneuver of fixation is the most important step in vasectomy. If this art is mastered, then vasectomy is a simple operation.

8.4 Injection of Local Anaesthesia :

In this position of fixation, 1% Lidocaine local anaesthesia is injected into the skin close to the vasal tissue. One needs only 1 to 1-1/2 cc of Lidocaine.

8.5 Incision :

A skin incision of 1/3 to 1/2 of an inch is made directly over the vas where the local anaesthetic was injected, in line with the vas. After the skin is cut, the dartos muscle is separated by fine mosquito forceps.

8.6 Lifting of Vas :

The Vas forceps/Allis clamp or other tissue forceps is used to hold the vas. The Vas forceps/Allis clamp is introduced through the incision and the jaws are opened. The forceps is advanced over the vas to go behind the vas. Once the forceps is behind the vas its jaw is closed. The Vas is now pulled up by the forceps just above the skin incision. It cannot be pulled further unless the sheath is incised. Take the scalpel and incise the sheath longitudinally. If the sheath is incised properly,

the Vas will pop up as a smooth lily white tube. Hold this with another forceps and release the first forceps. The Vas is now pulled up easily for about an inch in length. It can be seen now that there is a thin mesentery-like structure attached to its inner side. The vas is now transected, the proximal end is tied and the distal end is preferably folded and ligated using chromic catgut '0'. The site of transection should be away from the epididymus to facilitate reanastomosis if this should become necessary in the future.

Assure complete haemostasis before skin closure. After returning the cord to its normal position, the skin is closed with plain or chromic catgut. Some surgeons do not use any skin sutures. The same procedure must be repeated on the opposite side of the scrotum. (Non-absorbable skin sutures are sometimes used in order to assure follow-up for stitch removal).

8.7 Post-operative counselling :

Immediately after vasectomy the man is not sterile. He must use contraceptives if he wishes to have sexual intercourse. Otherwise the sperm beyond the ligation will pass through ejaculation and can cause pregnancy. It has been estimated that sperm can survive up to 10 to 12 ejaculations. The client must be supplied with 15 condoms free of cost and advised to use them during the act of coitus until they are used up.

8.8 Instructions at time of Discharge :

Take the medicine prescribed by the doctor. Continue tetracycline 250 mg/caps started before operation, four times daily for 5 days. Paracetamol 500 mg. tablets every four hours as needed for Pain. Use tight underpant or a scrotal support for 7-8 days.

Return for stitch removal between 5 to 7 days.

Do not disturb the dressing.

Use condoms, as directed.

If there is any problem, report immediately.

8.9 Complications and side effects :

a) Pain at the site of operation.

This should be mild and disappear within a week. More severe pain and dragging sensation may indicate haematoma formation.

b) Bruising of skin will disappear by itself in a few days.

- c) **Post-operative bleeding and infection.** These require active treatment. Due to the looseness of scrotal skin, small persistent bleeding can cause a slowly enlarging haematoma. Absolute haemostasis should be secured. Care should be taken not to damage the pampiniform plexus, vessels of the vas and skin vessels. All bleeding points should be securely ligated and bleeding stopped before skin closure. Risk of post-operative bleeding can be minimized by ensuring rest for a while after operation and avoiding heavy manual work for two days.

8.10 Treatment of Haematoma :

This depends on the size :

- A small haematoma (less than 3 cm. across) situated in superficial tissue layers is managed by bed rest at home for a few days.
- A large haematoma is usually due to accumulation of blood in the tissue plane around the tunica vaginalis or within it. In either case the swelling will obscure the body of the testis and the skin will become tense and fluctuant. A large haematoma should be treated by immediate hospitalization and surgical evacuation of the haematoma under strict aseptic conditions. This procedure will minimise the chance of infection and resolution will be speedy. It is much better to open the wound and remove a large haematoma than to use a needle.

8.11 Infection : is less common than haematoma and many complicate haematoma. In some cases local infection can occur at the site of the incision. Patients with swelling and tenderness should be treated with antibiotics for infection. If pus is formed, surgical drainage will be required in addition to antibiotics.

8.12 Injury to the testicular artery has been reported and is a serious injury. It is very rare, but if it does happen immediate specialist help should be obtained.

8.13 Long-term Complications :

- Secondary infection may occur several weeks after vasectomy and may be associated with a tender lump at the site of the incision. Usually this infection arises in a haematoma. If pain and swelling are severe, surgical drainage is needed.
- Orchitis and epididymitis can be caused by venereal disease. For this reason, operation should not be done until after these conditions have been treated and cured.

Spermatic granuloma is rare, but can occur at the testicular end of the cut vas. If painful, it should be excised.

8.14 Follow-up :

Vasectomy cases should be checked in the RHCs/Clinic or followed-up by the FPA till the wound is healed. Removal of stitches is not necessary with no suture or absorbable suture is used.

In the event of delayed healing or any other complication the patient should be referred to the nearest hospital. Actual transportation cost will be met from PL account by the Thana Office concerned.

DILUTION OF SAVLON HOSPITAL CONCENTRATE

(Make fresh solution weekly) Dilute as follows :

1. General antiseptic purposes ; for sterilization of IUDS and instruments.
1cc/ml Savlon to 200 ml. water (or 5 ml/1000 ml.)
For instrument sterilization must immerse for 30 minutes.
2. Swabbing in obstetrics, wounds, burns, hand rinse.
Storage of clinical thermometers,
1 ml/100 ml. boiled water, or 10 ml/1000 ml.
3. Cleansing and disinfecting of dirty wounds. Cleansing of catheters and rubber appliances.
1 ml/30. or 15 ml./500 ml.
4. Pre-operative skin preparation,
Emergency disinfection of instruments immersion for 2 minutes,
Disinfecting thermometers.
1 ml/30 ml. 70% alcohol : or
15 ml Savlon in 100 ml. water made up to 500 ml, with 90% alcohol.

OPERATING INSTRUCTIONS FOR SAB AUTOCLAVE

Autoclave operation, handling and maintenance

Autoclaves supplied by PC & FP division are of vertical type with lid on top of the pressure vessel. Two kinds of heating source are in use :

1. Electrically heated by an internal coil or
2. Without internal heating coil. In this case the autoclave is heated either by a fuel stove or by an electrical hot plate.

Before each use check your autoclave :

- a) Electrical wiring, plugs and ground connections.
- b) Any damage to the vessel, lid and closing mechanism.
- c) Smooth function of the Air-Steam ejector valve.
- d) It should be placed on a firm stand to prevent it from falling. If a firm stand is not available, put it on the floor.
- e) Make sure the autoclave is put in a place where it will not obstruct movements in the room.

Operation :

1. Pour the prescribed amount of water into the autoclave. Use distilled water. In emergency use ordinary pure water. Never operate autoclave with less the prescribed amount of water.
2. Place container with goods to be sterilized in the autoclave.
3. Slide the flexible hose from the lid's ejector valve into the channel on the dressing container.
4. Tighten the holding bolts (by hand-never use tools, or they will be too tight).
5. Open the Air-Steam ejector valve : vertical position.
6. Start heating with the Air-Steam ejector valve open.
7. Wait until only steam escapes from the ejector valve. Then close the Air-Steam ejector valve by tipping it to horizontal position.

8. Watch the pressure gauge. When the pressure reaches 15-20 pounds per square inch (PSI), 250°F, (equals approx. 1kg/cm² or 121°C) heating source to maintain pressure.
9. Maintain this pressure for 30 minutes.
10. Flip the air steam ejector valve into vertical position. Steam will escape.
11. Switch off all heating.
12. Wait until pressure drops to Zero.
13. Open the cover without delay. (If there is delay, a vacuum may form).
14. Remove sterilization container/goods.
15. Remove any remaining water and wipe the autoclave dry.

NOTE :

Return the autoclave to PCFP Central Warehouse in case a crack or any other damage is observed.

In case steam escapes between the lid and pressure vessel, check tightening bolts (do not use any tools) by hand and if there is still a leakage apply a small amount of vaseline or liquid paraffin to the metal to seal on the tapered wall of the rim.

If your autoclave is heated by an internal coil and you have a power failure, the autoclave may, in emergency, be heated by a gas or kerosene stove. Ensure in such a case that control knobs and wiring are protected from the flames.

If you sterilize solutions, open the ejector valve very slowly otherwise the solutions will boil or evaporate.

Should the lid be stuck, a vacuum has formed. In this case check that the ejector valve is opened. This will not happen if the autoclave is opened at once after pressure has dropped to zero.

Finally : The ejection valve must always be left open when heating begins and closed when steam escapes. This allows excess air to be forced out. If this is not done, goods will not be properly sterilized.

EMERGENCY DRUGS

Emergency Kit.

- | Metal or wooden case. | Catheters |
|--|----------------|
| Hypodermic syringe 10 ml. x 2 | M.R. Syringe |
| Hypodermic syringe 50 ml. x 1 | |
| Hypodermic needles 22 G x 1" x 6 | |
| Tourniquet | |
| Inj. <u>Narcan</u> ^u (Naloxone) 0.4 mg per 1 ml. x 5 amp. | |
| Inj. <u>Lethidrone</u> 10 mg./1 ml. ampoule x 2 amp. (Use it NARCAN not available) | |
| Inj. <u>Epinephrine</u> (Adrenaline) 1 : 1000 1 ml, ampoule x 3 amp. | |
| Inj. <u>Solu-cortef</u> 100 mg. ampoule x 5 | |
| Inj. <u>Sodium bicarbonate</u> 7% solution ; 10 ml. ampoules x 20 | |
| Inj. <u>Calcium gluconate</u> 10% solution 10 ml x 2 amp. | |
| Inj. <u>Aminophylline</u> 250 mg. x 2 amp. | |
| Inj. <u>Phenergan</u> 50 mg. per ml. x 2 amp. | |
| Inj. <u>5% Dextrose in saline</u> 500 ml. x 3 bags. | with I. V. set |
| Inj. <u>5% Dextrose in aqua</u> - 500 ml. x 2 bags. | |
| Inj. <u>Glucose 25%</u> 10 ml. x 5 amp. | |

EMERGENCY EQUIPMENT

- Oxygen cylinder with reducing valve and flowmeter.
- * Suction machine, manual or foot-operated
Ambu-bag (Resuscitator)
- Airways no. 2 and no. 3 (three of each size)
- * In the absence of a suction machine, the emergency kit should contain and M. R. syringe and several catheters.

PROGRAM HIGHLIGHTS

DAY ONE :

- Inaugural Session : 1000-11 00

Co-Chairman :

Prof. M. R. Chowdhury,
Director-General,
Ministry of Health &
Population Control.

- Telawat-E-Quran
- Address of welcome
& Conference Objective—by
Conference Director.

SPEAKERS

- Speech by the Chairman,
Conference Committee

- Special guest Lecture No. 1

- Speech by the Hon'ble Vice
President,

1130-1145

JUSTICE ABDUS SATTAR

Voluntary Sterilization around
the world

- Vote of thanks—by the Secretary
General, BAVS

—Dr. Ira Lubell
Executive Director, IPAVS,
New York, USA

- Inaugural Tea : 1100-1130

- First Scientific Session :

1145 - 1200

Chairman :

Mr. A. M. Hyder Hussain.
Secretary,
Ministry of Health &
Population Control.

Sterilization Program In Bangla-
desh—Present and Future

—Dr. Fazlul Karim,
State Minister for Health &
Population Control

1200 - 1210

Medical Standard and Quality Service in Voluntary Sterilization Procedures.

—Dr. Azizur Rahman,
President,
BAVS.

1210 - 1220

Maintaining Asepsis in Voluntary Sterilization

—Brig. K. M. Siraj Jinnat,
Consultant Surgeon,
C. M. Hospital, Dacca Cantt, Dacca.

1220 - 1230

Revised Anaesthesia, Analgesia Regimen in Voluntary Sterilization.

—Dr. Sultana Begum,
National Medical Director,
BAVS,

1230 - 1240

Training of Health and Family Planning Menpower

—Col. Hashmat Ali,
Director-General,
NIPORT.

1240 - 1250

Equipment and Supplies Necessary for Voluntary Sterilization Procedures

—Dr. Lutfor Rahman Talukder,
Director, Dacca Division,
PC&FP, Azimpur, Dacca.

● **Lunch Break :** 1300 - 1430

● **Second Scientific Session :**

Chairman :

—Col. L. A. Khan,
Director-General (Imp), PC&FP.

Co-Chairman :

—Dr. Lutfor Rahman Talukder,
Director, PC&FP, Dacca Division.

SPEAKERS

1430 - 1440

Service Delivery System

Dr. Nargis Akhter
Director (Service Delivery)
PC & F. P. Divn.
(Read out by Dr. Rafiqul Islam)

1440 - 1450

Introduction of the Sterilization Manual

—Dr. Shafiqur Rahman,
Director, Biomedical Research,
NIPORT.

1450-1500

Counselling and Informed Consent

—Prof. A.B. Bhuiyan,
President,
BAVS, Rangpur Branch.

1500-1510

Patient Examination & Selection

—Prof. S. M. Mukhlesur Rahman,
Narail Town, Jessore.

1510-1520

**Sterile Technique (or Sterile
procedure)**

—Dr. Mirza Mazharul Islam,
Prof. of Surgery, Dacca Medical
College & Hospital, Dacca.

1520-1530

**Patient Monitoring and Emergency
Care (CPR)**

—Prof. K.A. Kader, 134, Azimpur
Road, Dacca.

1530-1540

**Post-operative Care and Long Term
Follow-up**

—Dr. M.A. Quader, Medical Director,
BAVS Khulna. (Read out by
Dr. Salahuddin Ahmed M.S.)

1540-1550

**How to avoid complication in Volun-
tary Sterilization and How to manage
if occurs.**

—Prof. Syed Ershad Ali, President,
BAVS Sylhet Branch.

Tea Break : 1550-1610

● **Session Three**

Chairman :

Dr. Abdus Sobhan Chowdhury,
Country Representative
Pathfinder, Dacca.

Co-Chairman :

Dr. Sultana Begum, National
Medical Director, BAVS.

● **Special guest Lecture No. 2**

**The role of voluntary sterilization
primary health care,**

Dr. Donald Minkler, Director,
The Pathfinder fund, USA.

DAY TWO :
MINI-CONFERENCES 0900-1230

**TOPIC : Counselling and Informed
Consent**

Room No. 01

Chairman :
Prof. S-F. Begum, Dacca.

Co-Chairman :
Prof. A.B. Bhuiyan, Rangpur.

Resource Persons :
(1) Dr. A. Subhan Choudhury, Dacca.
(2) Dr. A.B. Choudhury, Dacca.

Rapporteur : Dr. Mizanur Rahman,
Dacca.

TOPIC : Minimum Medical Standard
for Voluntary Sterilization
Service.

Room No. 02

Chairman :
Dr. H. Robert Holtrop, U.S.A.

Co-Chairman :
Dr. Atiqur Rahman Khan, Dacca.

Resource Persons :

- (1) prof. Zubaid Hossain, Mymensingh
- (2) Dr. Salahuddin Ahmed, Dacca.
- (3) Dr. B. B. Barua, Dacca.

Rapporteur : Dr. Samarjit Majumder,
Dacca,

TOPIC : Surgical Team, Composition
and Individual
Responsibility.

Room No. 03

Chairman :
Dr. B. Lahiri, India.

Co-Chairman :
Col. L. A. Khan, Dacca.

Resource Persons :
(1) Prof. S. M. Mukhlesur Rahman,
Jessore.
(2) Dr. Nargis Akhter, Dacca.

Rapporteur : Dr. Liaquat Ali, Dacca.

TOPIC : Surgical Equipment
Asepsis and Sterility.

Room No. 04

Chairman :

Dr. A. P. Sattarthwaite, Dacca.

Co-chairman :

Brig. K. M. S. Jinnat, Dacca.

Resource Persons :

- (1) Prof. Altaf Hossain Talukder, Rajshahi.
- (2) Dr. Sabera Rahman, Dacca.
- (3) Dr. P. B. Chakraborti, India.
- (4) Dr. Aray Sriburathan, Thailand.

Rapporteur : Dr. Abu Jamil Faisal,
Dacca.

TOPIC : Practice of Anaesthesia,
Analgesia and Patient
Monitoring.

Room No. 05

Chairman :

Dr. C. L. Jhaveri, India.

Co-chairman :

Dr. Sultana Begum, Dacca,

Resource persons :

- (1) Prof. K. A. Kader, Dacca.
- (2) Prof. Suraiya Jabeen, Dacca.
- (3) Dr. Shahjahan Choudury,
Chittagong.

Rapporteur : Dr. Suraiya Begum,
Dacca.

TOPIC : Emergency in VS and its
Management.

Room No. 06

Chairman :

Prof. M. A. Wahed, Sylhet.

Co-Chairman :

Prof. Jobaida Khatun, Rajshahi.

Resource Persons :

- (1) Dr. Azlur Rahman, Dacca.
- (2) Prof. Kabiluddin Ahmed,
Dacca.
- (3) Dr. Anowarul Azli,
Mymensingh.

Rapporteur : Dr. Mujahid Hossain,
Dacca.

TOPIC : Complication, Prevention
and Treatment.

Room No. 07

Chairman :

Dr. C. S. Dawn, India.

Co-Chairman :

Prof. Mirza Mazharul Islam.

Resource Persons :

- (1) Prof. Nawab Ali Ahmed, Dacca,
- (2) Prof. Syed Ershad Ali, Sylhet.

Rapporteur : Dr. Golam Sarwar,
Dacca.

TOPIC : Follow-up

Room No. 08

Chairman :

Dr. Lawrence H. Marum

Co-Chairman :

Dr. M. A. Quader, Khulna.

Resource Persons :

- (1) Prof. Malik Wadud, Dacca.
- (2) Dr. Pramila Sharma, Nepal.
- (3) Dr. Fariduddin Ahmed, Comilla.

Rapporteur : Dr. Dalla Nilufar

TOPIC : MCH Service—Partnership
for Successfull VS
Programme.

Room No. 09

Chairman :

Dr. Donald Minkler U.S.A.

Co-Chairman :

Dr. Shafiqur Rahman, Dacca.

Resource Persons

- (1) Prof. S. Nurjahan Bhulyan,
Chittagong.
- (2) Dr. B. R. Chakroborti, India.

Rapporteur : Dr. Sirin Akhter, Dacca

TOPIC : Mobile Sterillization Team
Operating in Sub-Centre,
(How to Maintain Minimum
Standard and Qualities)

Room No. 10

Chairman :

Prof. H. Kabir, Sylhet.

Co-Chairman :

Dr. Noorur Rahman, Chandpur.

Resource Persons.

- (1) Prof. Akram Hossain, Dacca.
- (2) Dr. Syed Ahmed, Comilla.
- (3) Dr. Lutfor Rahman Talukder, Dacca
- (4) Col. Sultan Ahmed, Sylhet.

Rapporteur ; Dr. M. A. Jalil, Dacca.

Lunch Break ; 1230 - 1400

o Special Session ;

TOPIC ; Family Planning &
National Development

Chairman :

**Prof. M. A. Matin,
Minister In charge
Ministry of youth Development**

Speakers :

- **Prof. A. Q. M. Badruddoza Chowdhury,**
- **Dr. Atiqur Rahman Khan.**
- **Dr. C. S. Dawn, India,**

Co-Chairman :

**Dr. Mirza Mazharul Islam,
Professor of Surgery,
Dacca Midical College &
Hospital, Dacca.**

● **Closing speech :**

**Prof. M. A. Matin.
Hon'ble Minister—in charge
Ministry of youth Development**