



# AMASI Newsletter



(Association of Minimal Access Surgeons of India)

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## Dear All

Greetings from Nagpur

We have just successfully completed AMASICON2019 at Nagpur. What an event it was! A resounding celebration of Minimal Access Surgery (MAS). A beautiful venue, fully airconditioned saw more than 1500 delegates and faculty thronging the halls, discussing all things minimally accessed. Day one was the CME program with all the five halls running some event or other. The discussions covered all aspects, writing from basics to advanced laparoscopic procedures. Stalwarts in the field of Minimal Access Surgery covered all aspects, right from how to write a scientific paper to robotic surgery and how to train for it. Day two onwards, the excitement was palpable as we started live transmission of the surgical workshop. Everything was shown in 4K and HD resolution, giving the audience a larger than life experience. Over the next three days, a gamut of cases were shown, including those of GI surgery, urology, gynecology, pediatric surgery and endocrine surgery (transoral thyroidectomy was live streamed for the first time during an AMASICON). The halls remained packed till the last day, when Prof Palanivelu took over and showed virtual live surgeries for advanced procedures like distal pancreatectomy, radical gastrectomy and thoracoscopic esophagectomy. The hospitality was impeccable with excellent arrangements for food and the final gala dinner was an event to remember. AMASI thanks the excellent effort of the organizational team of AMASICON2019 led by the Organizing Chairman Dr. Dilip Gode and the dynamic Organizing Secretary Dr. Prashant Rahate for a fantastic academic extravaganza.

We are not content at resting on our laurels. Already, preparations are in full swing for AMASICON2020, at New Delhi, with the Organizing Secretary Dr. Deborshi Sharma, leading his team from the front.



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## IN THIS ISSUE

### Gurubhashayam

In this issue, Prof. Surendran describes his odyssey which led to the establishment of the prestigious Department of Surgical Gastroenterology at Government Stanley Medical College, Chennai and the initiation of the Liver Transplant Program.

### Guideline Series

Dr. Om Tantia, Past President of AMASI, was entrusted with the responsibility of formulating the AMASI guidelines regarding disinfection and sterilization in laparoscopic surgery, which he presents during this installment of the ongoing series.

### Writing a Scientific paper

Dr. Siddhartha Bhattacharya, MS, DNB, FNB is a Consultant Laparoscopic, GI & Bariatric surgeon at Peerless Hospital, Kolkata. He educates us on the different types of clinical studies and how to choose the appropriate study design.

### Journal Watch

Dr. Priyank Chelawat, M.S., DNB (Gen. Surgery), FNB (Minimally Invasive Surgery) is a consultant laparoscopic and endoscopic surgeon at Chelawat Hospital, Mandsaur (M.P.). He reviews an article enumerating the top 10 developments in endoscopy in 2018.

### **Plus the regular features like:**

- ◆ Hobby corner
- ◆ Know your Representative
- ◆ MAS Masti
- ◆ Upcoming events update
- ◆ Past Event

# Gurubhasyam

- Dr. R. Surendran

## I Too Had a Dream.....



Dr. R. Surendran M.Ch  
Former Director of SGE,  
Stanley Medical College, Chennai

Prof Jeswanth, a close associate from Govt Stanley Medical College has the following to say:

Prof R. Surendran, fondly known as Prof R.S, is an eminent surgeon, able administrator, extraordinary teacher and above all a good human being, who believes in medicine for masses. A great visionary, he pioneered several concepts in the country - ISO 9001 : 2000 accreditation for the GI Bleed Centre and HPB unit, CMP certified Stem Cell Research Centre, brain dead maintenance unit and, of course, the the unique Institute of SGE and Liver transplant. It takes a good surgeon to save patients but it takes a true Guru to train hundreds of good surgeons. Prof R.S has done both the roles in a graceful way, setting a living example for young surgeons. He made everything possible, crossing many hurdles with his sheer hard work and determination. It is our proud privilege to have a surgeon par excellence, a passionate teacher, a visionary, a friend and philosopher and above all a good human being in a single dynamic personality.

I would like to dedicate this When I was requested by AMASI to contribute an article for their newsletter, I had no inkling of what to write.

Suddenly it struck me “Why not write about the Surgical GastroEnterology (SGE) department at Stanley Medical College?” This may dispel some of the myths and misconception that are in the air. Since this newsletter is going to all AMASI members, nearly 10000 young surgeons across India, it may also inspire them to perhaps pursue something similar in their own life. So I set to write this truth from my heart - the surprising events that led to the birth of SGE Dept ... Some of these were witnessed by my friends in Stanley and some by my friends who were with me in Madurai.

It all started in the October of 1993, when I was promoted and posted at Madurai Medical College. I was the youngest Head of Department, posted in a speciality department - not to the liking of some senior professors. The Dean, Head of Department of General Surgery and the colorectal surgeon were my former classmates and were determined not to allow the establishment of a separate department. But inspired by Prof. Venkatasamy and Dr Badrinath of Sankara Nethralaya, I was keen on contributing something.

During the six months I stayed at Madurai, I was not allowed to see even a single patient, nor perform any surgery. I was upset and every week I used to come to Chennai and meet the Health Secretary; he was also reluctant to find a solution.

The DRO of Madurai asked me to go to the temple at Thirumogur near Madurai .I went there with my friend cardiologist Dr Sukumar, and let the God know my plight at Madurai. Believe me, the very next day when I met the Secretary, who was already irritated with my repeated complaints , he asked me whether I would go to Tirunelveli medical college, if transferred. When I said yes, he was surprised. He asked me which was the medical college nearest to my home town. I said Salem Medical College, with a single stroke of pen, he transferred the entire SGE department, from Madurai to Salem and posted me there. Since my friend from Peripheral Hospital, Annanagar wanted Salem posting, I landed in Peripheral Hospital, Annanagar.

At Madurai, I had witnessed people dying from hematemesis and liver failure and I was determined to resolve these problems if possible. My stay at Annanagar was short and when I was posted at Stanley in 1995, I discussed my ambition of starting liver transplant. But my colleagues initially thought that I was joking.

There were severe financial constraints. No budget was allocated to us. I had operated on wife of the then Member of Parliament of North Madras constituency, Mr Kuppusamy, for cancer of the esophagus. He contributed from his constituency development fund . But unfortunately, that meagre amount too was snatched away from us. My colleagues and I ran from pillar to post but to no avail.

Our team thought we should convince the govt that we mean business. So we identified the high mortality area in gastroenterology and decided to start a centre to manage gastrointestinal bleeding and surgery of liver and pancreas. With much difficulty, we obtained an unutilised ward in the surgical block. As there was ban on recruiting new staff nurses, the Health Secretary asked us to go for contract nurses. Immediately the Nurses' Association, who were against the recruitment of contract nurses, as well as public-private partnership, declared state-wide strike, unless this proposal was withdrawn.



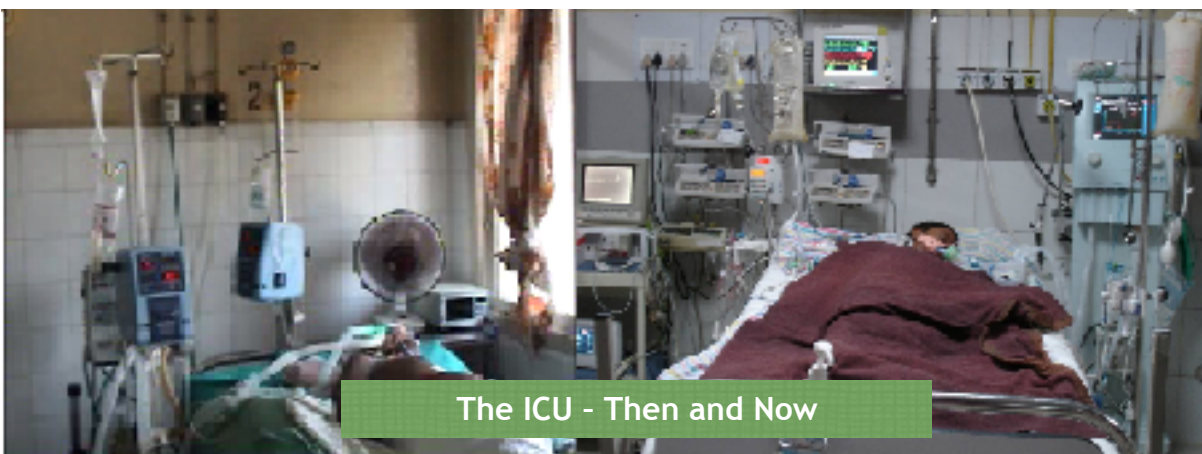
With a week to go on strike, an unusual situation presented itself. The son-in-law of the President of the Nurses' Association suffered a massive bout of hematemesis and was rushed to Stanley Medical College. After exhausting all conservative methods, I operated on him at 2 am in the night and he recovered. The President of the Nurses' Association came to thank me, weeping in gratitude. I told her, "Sister, you are thinking about your son-in-law, while I am thinking of thousands of sons-in-law in Tamil Nadu".

Of Course, as you guessed, the strike did not materialise. With the government's permission, we engaged contract workers, collecting a nominal fee as maintenance charge to pay their salary and it worked well. This concept was replicated later in other government hospitals in Tamil Nadu in different format after few years.

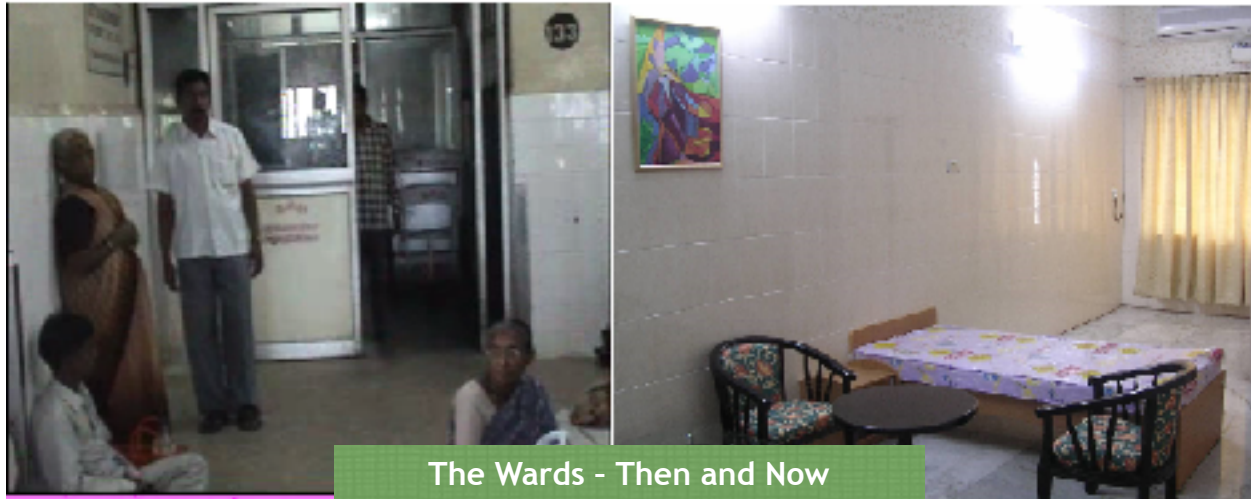


The Infrastructure - Then and Now

The GI Bleed Centre got ISO certification in 2000, the first in India, to do so. The mortality drastically fell and many were pleased. The revenue also was considerable with a surplus of 80 lakhs - we could purchase state-of-the-art equipment. Naturally doctors wanted to join the department to get hands-on training. My only condition was that, to be in an extraordinary department, they have to do some extra work, that is, stay in hospital more time and participate in academic activities. We have ended up having young, talented doctors interested in their work.



The ICU - Then and Now



The article published in the OUT LOOK about the successful management of a patient referred from Tirunelveli Medical College shot us to fame and the CM Madam Jayalalitha enquired about us. However, we were still at loss to get budget sanctioned for starting the Liver Transplant Program. As providence would have it, the finance secretary wanted to consult me at Apollo and I requested him to come to Stanley. He did come to Stanley on a government holiday and was impressed to see the entire department working full swing. He made arrangements for budgetary allocation - more than twice the amount we had asked for. We were also given a new building which nobody wanted to maintain and additional allocation to equip the building. Many thanks are due to the then Health Minister, Honorable Dhalawai Sundaram and Chief Secretary Mr Narayanan, IAS.

We got busy equipping the building for inauguration. A new Dean had joined and was interested in the fund allocated. On learning that a GO was passed to transfer the money to TNMSC, he was upset and was about to snatch the building from us. After exhausting all the avenues, desperately I rang up Chief minister's residence at 8 pm as I was to go to Japan the next morning. It was a miracle the CM's wife took the phone and I was to come early the next morning to meet CM. The very influential Dean was transferred, many officers were upset.



Mr Sanwatram IAS, who had once consulted me at Stanley, was at a later date without postings because of some political issues. He was waiting at Apollo hospital to consult me. I gently refused to see him and requested him to come to Stanley as on principle, I did not want to mix up both the practices. He did come to see me at Stanley after a few days with the good news that he was posted as the MD of TNMSC. This helped us to equip the building well. I thought if the building was inaugurated by the CM, all departments like PWD, Health etc. may cooperate. But because of some reason I was unable to get CM's appointment. The Health Minister wanted to inaugurate the building at the earliest.

Not knowing my next move, I went to Thirupathy as I thought only God can help. On return, I went to Apollo in the evening and was waiting for the lift. As the lift doors opened, the Chief Minister, along with other ministers, came out. I greeted him and told him that I could not get his appointment in the last two months. He asked me to come the next day by 9 am.

When I told him about the inauguration, he asked me "Doctors usually come for Padmashree or Padmabushan. Don't you want it?"

I replied "Sir, if you could inaugurate our building I will be as happy as if I got Bharat Rathna".

This, I was told later, had a profound impact as the CM was discussing about me for more than half an hour. The CM inaugurated the building and the function was a grand success. More than that, he insisted on calling me to shake my hand and asked the Hindu (newspaper) photographer to take a photograph, which appeared in the daily the next day. I was elated.

One part of my prayer was answered. The next is to do a successful transplant. Mr Balakrishnan IAS and Mrs Sheela Balakrishnan IAS happened to come to our department and wanted me to give a lecture to senior doctors who came for management training to Anna Institute of Management. Once a month, about 50 senior doctors used to come and I would narrate the story of our department. On 28th January 2009, after such a lecture, we were having a cup of coffee when a senior doctor asked me "Dr. Surendran, the department has come out well, but when are you going to do liver transplant?" Believe me, before he even closed his mouth, my cell phone rang and somebody from GH asked me that they have a brain dead cadaver available and whether I want to take the liver.

Our team was thrilled beyond belief. We started our first liver transplant at 11 pm and it went on till the next day afternoon. Incidentally this was the first successful liver transplant in public hospital in the country.

We were all exhausted and I asked my team to come to my room to have a cup of coffee and rest for half an hour while the anaesthetists settled the patient. When we went to my room, we saw a swamiji standing there with garland and prasadam. My secretary told me that he was waiting for more than 6 hours and refused even to sit. He garlanded me and gave me the prasadam and told me that he is coming from Uppiliappan temple to invite me for the Kumbabishegam. I had never seen him before and nor again ever afterwards. I have told my friends that this department is blessed and the patient is also blessed, even if immuno suppressants were not given, this patient will do well. It is ten years now and on 29th January every year, whenever she rings up and says she is still alive thanks to the Stanley team, words cannot suffice to describe the emotions that I experience.



Few months before my superannuation the Health Minister visited me at Stanley twice and asked me to continue my work in Stanley, saying that the Government was planning to give me an extension. I politely declined the offer saying that I would like to demit my office with good memories as the extension would create a lot of heart burns. The day before my retirement was due, the Honourable Deputy CM M K Stalin asked me to continue my service and coaxed me, almost jokingly complaining that perhaps I will listen only to the Chief Minister. I reluctantly accepted the offer, causing lot of heart burns. I could carry on with 36 liver transplant and the stem cell lab construction.

I consider myself fortunate that the Almighty used me as an instrument to establish GI & Liver related services at Stanley Medical College. I am eternally indebted to Madam Jayalalitha, Kalaingar Karunanithi, Mr Dalawai Sundaram and Mr M R K Paneersevam for their support. I am grateful to all the IAS officers for their support - Mr Poornalingam, Mr Narayanan, Mrs Sheela Rani Chungath, Mr Subburaj, Mr Sundara Thevan,



Mr Ashok Vardhan Shetty, Mr Jacob, Mr Karuthia Pandian, Ms Leena Nair and many others. They were my driving force.

I cannot forget my dear colleagues, my pillars of strength vizx, Prof. Rosy Vennila, Prof. Jeswanth, Prof. Ravichandran, Prof. Kannan, Prof. T G Balachander and Prof. Darwin. Though we had our moments of discord, maybe because of some misconception and misguidance, they have been an integral part of this hard work.



My fond dream to establish a state-of-the-art Liver unit at Stanley, serving as a hub for the entire South-East Asia, has not fully fructified for various reasons. However I do have some satisfaction of having given my best to Stanley, my alma mater.

A lot of water has flown under the bridge, encompassing many more interesting anecdotes and miracles, which if penned will run into several chapters.

I stop here for now, profusely thanking all concerned, for this opportunity to share my thoughts, my dreams.

# Guideline Series

## Cleaning, Maintenance & Sterilization in Laparoscopic Surgery

Dr.Om Tantia



**Dr. Om Tantia**  
MS, FRCS (Eng), FACS, FICS, FAIS, FMAS  
Medical Director & Head  
Dept of Minimal Access & Bariatric Surgery

Our Past President, Dr. Om Tantia, is a mentor in the truest sense of the word. Deeply involved in teaching young surgeons the intricacies of minimal access surgery, he is always helpful and ready with a word of advice for PG residents and surgeons alike. His commitment to academics is borne out by the fact that he has been actively involved in all teaching activities of AMASI. He has been instrumental in organising several academic events in Kolkata under the aegis of AMASI, when he has very generously opened the doors of ILS Hospital for the use of AMASI. He is currently the National Program Director in charge of developing a subspecialty training course in Bariatric Surgery.

### Definitions:

**Disinfection** - A process that eliminates many or all pathogenic microorganisms, except bacterial spores, on inanimate objects.

**Decontamination** – Removal of all pathogenic micro-organism from object to make them safe to handle / use / discard. It is a combination of procedures used to make a reusable item safe for further use by reducing bio burden. It has to be performed before disinfection/sterilization. .

Levels of evidence are considered as published by the Centre for Evidence Based Medicine, Oxford in 2009.

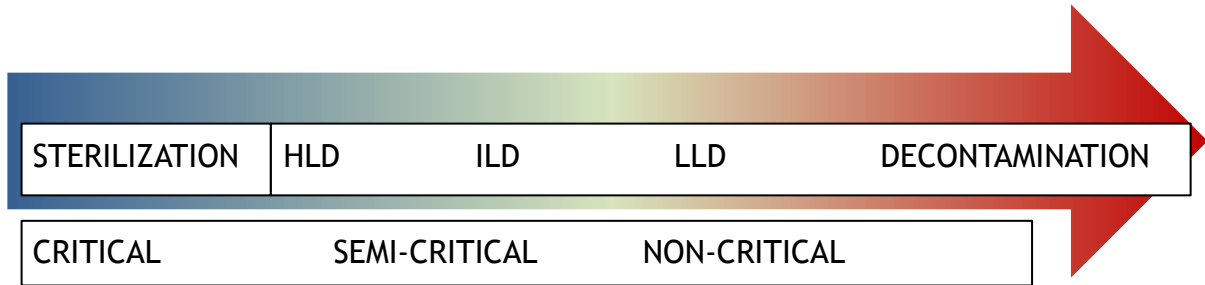
Recommendations for safe use are as follows(adapted from Recommended practice of AORN,2012) (1)& Cochrane Database article.

### Spaulding Classification of Surfaces

**CRITICAL** - objects which enter normally sterile tissue or the vascular system or through which blood flows should be sterile.

**SEMI CRITICAL** - objects that touch mucous membranes or skin that is not intact require a disinfection process (high-level disinfection [HLD]) that kills all microorganisms but high numbers of bacterial spores.

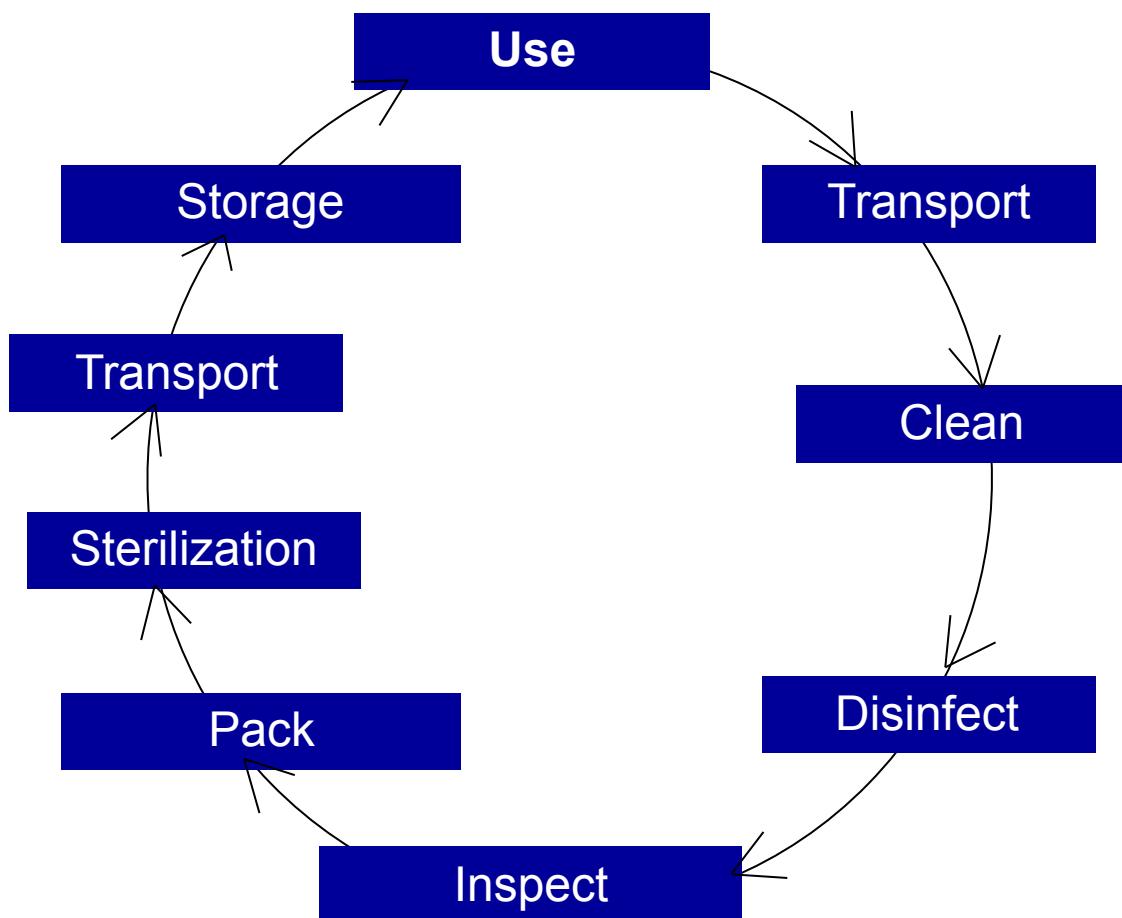
NON CRITICAL - objects that touch only intact skin require low-level disinfection (or non-germicidal detergent).



The CDC guideline 2008 states that although sterilization is preferred, no reports have been published of outbreaks resulting from high-level disinfection, when they are properly cleaned and high-level disinfected.

A membership survey of 10,000 laparoscopic gynecological procedures with high level disinfection revealed an infection rate of less than 0.3% .

Fig. 1. The Process flow for use and preparation of surgical instruments.



Laparoscopic instruments are complex in design and delicate in construction. Additionally, due to their use in setting of elevated pressure, blood & tissue enter into the channels. This leads to specific problems like

Lodging of bioburden in the crevices

Gentlest methods need to be used for cleaning and sterilization

The following steps should be taken to clean the laparoscopic instruments:

On table, as soon as the surgery is over, the instruments should be immediately wiped or kept in water bowls. They should be washed under running water, to decrease the organic load. The instruments should be dismantled & the channels should be cleaned. If the surgery has been long or the instruments are excessively soiled, they may be immersed in enzymes solution for some time. Particular attention should be paid to cleaning the channel, joints & serrations. Cleaning may be accomplished with a nylon brush or water jet. Ultrasound cleaners are available. While they are efficient, no advantage has been demonstrated till date over efficient manual cleaning. Finally the instrument should be dried.

Substances harmful for Instruments:

Saline

Bleaching powder

Iodine based preparations

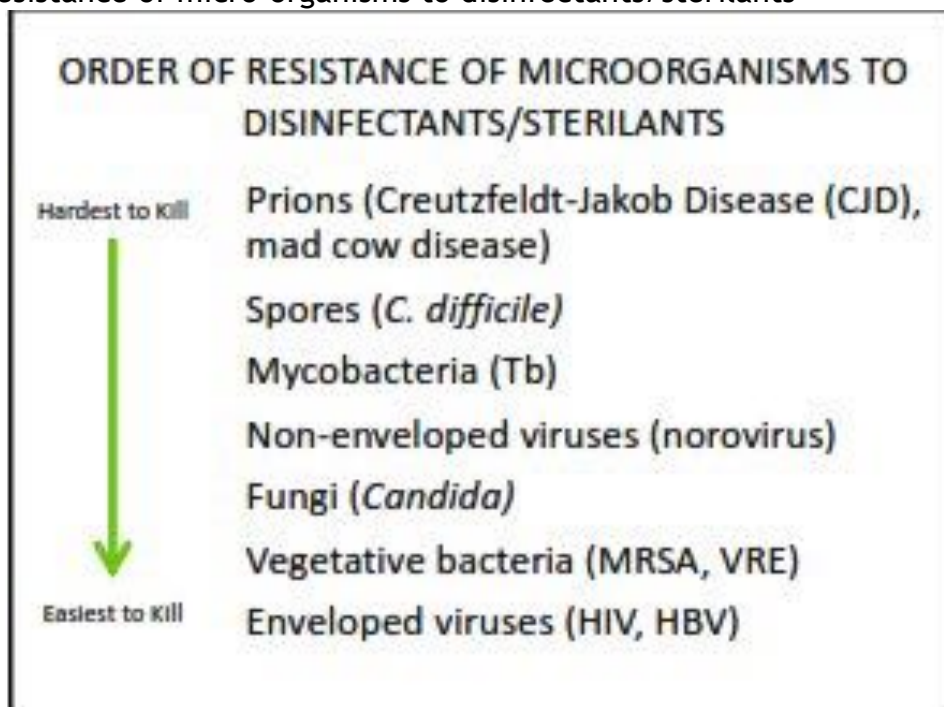
Abrasive cleaners- Vim powder etc

Laundry detergents

Surgeon's hand scrub

Soap

Fig. 2. The resistance of micro-organisms to disinfectants/sterilants



Disinfection - Removes and / or kills the pathogenic micro organisms (spores not killed). It can be of three types:

- i. Low level disinfection: This reduces the overall number of vegetative micro-organisms. However, it does not destroy the spores of M.Tb bacilli.
- ii. Intermediate level disinfection: This kills TB bacilli, most viruses and fungi, but only some spores. Instruments treated thus are used in OPD, where there is no breach of skin or mucosa.
- iii. High level disinfection: This kills most forms of microbial life, including TB and most of the spores. This form of disinfection can be used to treat delicate instruments like scopes and other delicate instruments which are used in minor surgical procedures.

### Methods of Disinfection

The various methods of disinfection available are:

Low temperature steam - at a temperature of 73oC for a duration of 20 minutes.

Boiling water -at a temperature of 100oC for a duration of 5 minutes.

Formaldehyde - air tight chamber at a temperature of 50oC, effective duration of exposure required is unknown.

Chemical Disinfectants. See fig. 3.

Fig. 3. Chemical Disinfectants

GERMICIDE	CONCENTRATION
Glutaraldehyde	≥ 2%
Ortho-phthalaldehyde	0.55%
Hydrogen Peroxide	7.5%
Hydrogen Peroxide and Peracetic acid	1% / 0.08%
Hypochlorite (free chlorine)	650-675 ppm
Accelerated Hydrogen Peroxide	2.0%
Peracetic acid	0.2%
Glutaraldehyde and Isopropranolol	3.4% / 26%
Glutaraldehyde and phenol/phenate	1.21% / 1.93%
Exposure time > 8 -45 min (US) and temperature 20-25° C	

**Gluteraldehyde** - It destroys microorganisms by alkylation of amino acids. It has efficient bactericidal, fungicidal & virucidal activity but low myco-bactericidal activity. Once activated,

the shelf life of the solution is 14 days. The contact time recommended is 20 - 90 minutes for high level disinfection and 6 - 10 hours for sterilization.

**Paracetic acid** - It acts by denaturation of protein & destruction of cell membranes. Contact time of 30 minutes is recommended. Once activated, the solution can only be re-used for 24 hours. It is effective in presence of organic matter & at low temperatures. It has an additional tuberculocidal activity

**Ortho-phthalaldehyde(OPA) - 0.55%** - Its mode of action is dependent on its interaction with amino acids, proteins & micro-organisms. It has superior mycobactericidal activity as compared to that of glutaraldehyde, and is more stable than the latter. OPA is effective over a 14-day use cycle and is less irritant to eyes. The disadvantage is that it stains proteins gray (including unprotected skin). The recommended contact time is 12 minutes.

**Hydrogen Peroxide** - It has bactericidal, virucidal, sporicidal & fungicidal properties. It produces hydroxyl free radicals that can attack membrane lipids, DNA, and other essential cell components. Accelerated hydrogen peroxide(0.5%) kills viruses in 1 minute and Mycobacteria and fungi in 5 minutes.

**0.08% Peracetic acid + 1.0% hydrogen peroxide** - It acts by denaturing protein and thus, destroying cell membrane. It is effective against Mycobacteria resistant to glutaraldehyde. The recommended contact time is 10 minutes.

**Factors affecting efficacy of disinfection & sterilisation:** Apart from the agent used, several external factors affect the process of disinfection and sterilization. These are as follows:

- a) Number and location of microorganisms
- b) Innate resistance of microorganisms
- c) Concentration and potency of disinfectants
- d) Physical and chemical factors like temperature, ph, relative humidity, and water hardness.
- e) Organic and inorganic matter
- f) Prior cleaning
- g) Moisture
- h) Direct contact with the items
- i) Duration of exposure
- j) Temperature
- k) Chemical test strips should be used after every 10th cycle

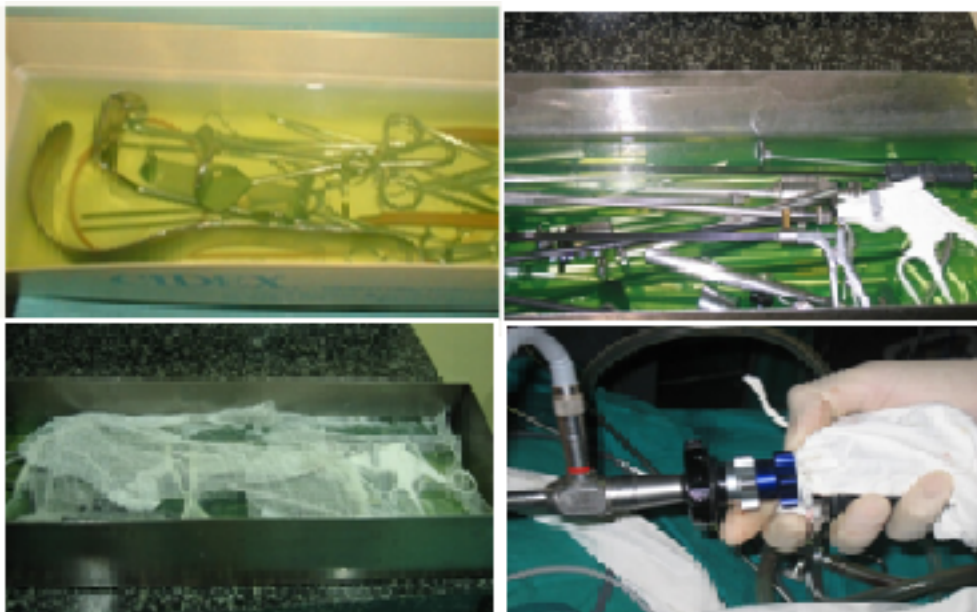
**Safe use of chemical disinfectant:** The following precautions should be taken while using chemical disinfectants:

- i) Check efficacy before use
- ii) Use sterilized stainless steel tray for the chemical disinfectant solution.
- iii) Avoid using plastic tray for chemical disinfectant solution.
- iv) Thoroughly clean & dry the instruments before putting in chemical disinfectant solution. The presence of water on instrument changes the pH of chemical disinfectant solution.
- v) Allow the chemical disinfectant solution to drip back into the tray.
- vi) Use gloved hands to pick up the instruments.
- vii) Lifter should not touch the tray wall (Unsterile!!).
- viii) Rinse instruments thoroughly in sterile water (at least 3 times).
- ix) Sterilize the sterile water tray!
- x) Dry all the instruments before use.

**DON'TS: (See Fig. 4)**

- Soak open surgery instruments and instruments used in contaminated field along with those used in laparoscopic clean surgery in the same container with chemical disinfectant
- Overload the container with instruments so that some instruments or their handles are protruding out of the solution.
- Cover an overladen container with a cloth soaked in chemical disinfectant
- Partially cover the unsterile camera head coupler with a sterile cover to access the focussing and zooming controls.

**Fig. 4**



**Sterilization:** The process by which all forms of microbial life including bacteria / virus / fungi / spores are destroyed.

Various Techniques:

- High Temperature:
  - Steam sterilization
  - Dry Heat
  - Steam formaldehyde (chemiclave)
- Low Temperature:
  - Hydrogen peroxide gas plasma
  - Vaporized hydrogen peroxide
  - Ethylene oxide (ETO)
  - Low temperature steam at 73oC + formaldehyde; for heat sensitive instruments; not very popular
  - Paracetic acid: Denatures protein and destroys cell membrane; kills spores at 50-56oC with minimum exposure of 12 minutes.
  - Gamma-Irradiation (for industrial use).

### Moist Heat (Autoclave)

- Moist heat under pressure.
  - Routinely 121oC for 15 - 30 minutes duration at 15 psi pressure
  - Flash autoclave works at 132oC
  - In Gravity dependent autoclaves: 3 minutes exposure for nonporous items and 10minutes for porous items.
    - In pre-vacuum autoclaves: 4 minutes for nonporous items and 4 minutes for porous items.
    - Quick penetration in material
  - Unaffected by presence of organic matter
  - For linens, metallic instruments, glass, fluids, plastics



- Advantages of steam sterilization:
  - Non-toxic
  - Cycle easy to control and monitor
  - Inexpensive
  - Rapidly microbicidal
  - Rapid cycle time
  - Least affected by organic/inorganic soils
  - Penetrates medical packing, device lumens
- Disadvantages of steam sterilization:
  - Deleterious for heat labile instruments
  - Inappropriate for heat-sensitive instruments
  - Inappropriate for moisture-sensitive instruments
  - Dulling
  - Rusting
  - Potential for burns

### Dry Sterilization

- Transfers heat energy from air inside the oven to the instruments.
- Requires higher temperatures of 160-190° C.
- Good for items that are likely to dull or rust in the autoclave.
- Good for powders, cellulose and ink.
- Packaging must be able to withstand high temperatures
- Disadvantage
  - Cycle time is longer - 16 hours at 1210C, 1 hour at 1710C
  - Load capacity is smaller

Monitoring of the sterilization process is done by using Bowie - Davies Tape or biological Indicators like *Bacillus stearothermophilus* spores (for steam autoclaves) and *Bacillus subtilis* spores (for dry heat sterilizers)

### Ethylene Oxide:

- Useful for wide diversity of medical devices, eg. plastics, rubbers, endoscopes, instruments, fluids etc.
- Alkylates N-positions of Guanine in DNA directly.
- Disadvantages :
  - Carcinogenic & Mutagenic
  - Chronic & acute toxicity syndromes - So necessary aeration period of 8 to 24 hours.
  - Standard ETO cycle is 285 minutes + aeration time of 8 to 24 hours.
  - Occupational hazard to workers & environment.
  - Monitoring with B subtilis spore.

### Low Temperature Steam with Gaseous Formaldehyde:

- An alternative to ETO.
- But formaldehyde itself is toxic & carcinogenic.
- Combination of gaseous Formaldehyde saturated steam at 65°C.
- Suitable for heat-labile material eg (most plastics, non flexible endoscopes & equipments).
- Monitoring → By spores - B. Subtilis, B. stearothermophilus.

### Gas Plasma Sterilization (Sterrad):

- For temperature & moisture sensitive materials.
- Mechanism: When a strong electric field is applied to hydrogen peroxide vapours, it creates hydrogen peroxide in plasma state which, in turn produce hydroxyl & hydro-peroxy free radicles. These free radicles disrupt cell membranes, enzymes & nucleic acids, causing cell death. When the electric field is turned off, the activated compounds recombine to form water and oxygen.
- Advantage
  - No toxic by-products.
  - Cycle time 55 to 75 minutes.
  - No aeration period, hence instruments are ready for immediate use.
- Disadvantage
  - Not for linens, powders & liquids
  - Approved for use on stainless steel devices with lumen > 3mm diameter & length < 40 cm.

- Metal & plastic instruments with lumen > 6mm diameter & length < 31 cm.
- Cycle turns off if slightest moisture is present in the chamber.
- Expensive - Both the equipment as well as running recurrent cost.

**Formalin Chamber** - The Bane of Laparoscopy - the formalin chamber is mentioned here only to be condemned. It has no role in the modern laparoscopic operation theatre.

Fig. 5. Recommendations for sterilization of different laparoscopic equipments

	Autoclave	2.4% glutaraldehyde	Peracetic acid	ETO	Gas plasma	Sterile sleeve
Camera	N	++	++	As per the manufacturer recommendation	+++	++
Light cable	As per the manufacturer recommendation	++	++	++	+++	+
Telescope	As per the manufacturer recommendation	++	++	As per the manufacturer recommendation	+++	N
Tubings / diathermy	N	+	+	+++	+++	N
Ultracision cable	N	++	++	++	+++	++
Heat sensitive hand instruments	N	++	++	+++	+++	N
Heat resistant hand instruments	+++	++	++	+++	+++	N
Trocars	+++	++	++	+	+++	N

**Storage Of Sterile Items:**

- The demarcated storage space should be well-ventilated and free from dust and moisture. It should be protected from extremes of humidity and temperature.
- The items should be stored in such a manner that they are at least 8-10 inches from the floor, 8 inches from the ceiling and 2 inches from the outside walls.
- Care should be taken to ensure that the sterile packing is not damaged.
- Each item should carry a label specifying the load number, cycle number, date of sterilization.
- Before opening the package for use, it should be inspected to ensure that its integrity is not compromised. If found so, it should be discarded for repacking and reprocessing.

**Conclusions:**

- Thorough cleaning is an important primary step.
- Essential to follow rigid protocols for instrument cleaning and sterilization.
- Only well-established methods of sterilization / high level disinfection should be used.
- Storage of sterilized instruments should in a separated designated place and before each use, the packing should be inspected to confirm its integrity.

# Writing a Scientific paper

## Types Of Clinical Studies & Selecting The Proper Study Type



Dr. Siddhartha Bhattacharya

Siddhartha is on an eternal quest to find the kid in himself. The unwitting victim of his quest for nostalgia is his son, with whom he spends an inordinate amount of his free time. The rest of his time is devoted to gadding about, especially with his friends (I wonder if they are his friends or his son's), exploring new life experiences. He likes to encounter different cultures and believes in living in the moment. He is an avid reader (why is this a recurring theme in our contributors?) and hopes to be inspired by all he reads into penning something creative of his own.

He is a basket ball player and has still not given up reaching for the heights. Being a quintessential Bengali 'bhadralok', he runs true to the stereotype and plays the tabla.

His ultimate ambition....make people thin and find out newer and innovative ways to do this.

Most of us are clinicians first and researchers later. We work hard to establish our practice, and when we have sizeable data, we are faced with the daunting task of performing clinical studies. Let us face it; most of us have little or no knowledge of how to choose, design or practically conduct a study when we try to conduct our first study or write our first paper. There are many pitfalls like bias, inadequate numbers, application of inappropriate tests, unsuitable representation of results, and more, which can make the process of the study being accepted in a reputed journal difficult. However, we must remember that we all have a researcher within us who shows his/her presence every time we perform an innovative procedure or even an innovative step as part of a procedure, and all we need is some motivation and assistance to analyze and publish our data. My intention with this article is to be an assistant to help select an appropriate study for your research.

There are various types of clinical studies, and each type solves a certain purpose with a defined level of evidence. Let us look at them one by one.

Studies can be of two major types:

I. Observational studies - Also known as non-analytic or descriptive study. In these, the researcher simply presents the facts as they are without any sort of comparison. These include case reports, case-series, qualitative studies and surveys (cross-sectional) studies.



II. Analytic studies - Here the researcher attempts to carry out a comparison between an existing intervention ("gold standard") and a new intervention or to find out the relationship between intervention and outcomes or the relationship between two or more factors. These include cross-sectional studies, case-control studies and clinical trials.

**Case reports:** A case report usually includes a rare/unusual case or intervention which one encounters in everyday clinical practice. A report is simple to write, and for many of us, it is the first paper we ever write.

**Case series:** It includes a series of similar cases/intervention. It is more complex than a case report. The results obtained in a case series can be compared qualitatively to the results in the published literature.

**Cross-sectional study:** This type of study is a “snapshot” in time. It examines, at one particular time, the relationship between diseases and other variables as they exist in a defined population. It can quantify the prevalence of a disease or a risk factor, and also the diagnostic accuracy of a test. It cannot quantify the incidence of a disease or a risk factor.

**Case-control study:** It is a retrospective study wherein two groups are compared, one group being the cases (having the disease/condition) and the other group being the controls (not having the disease/condition). The purpose of this study is to identify the factors that may contribute to the medical condition. The two groups are similar in other attributes.



**Cohort study:** It is a prospective observational study in which there are two similar groups, one group is exposed to a risk factor and the other group is not. The groups are observed over time for the development of disease. This study type can calculate the absolute risk of developing a disease or a condition due to an exposure.

**Clinical trial (RCT):** This is a form of prospective study where the intervention in each arm of the study are allocated either randomly (Randomized Clinical Trial or RCT) or non-randomly (Non-randomized Clinical Trial). The primary purpose of randomization is to reduce allocation and selection bias. There are several components of an RCT which include:

1. Randomization: This can be of various types: Simple, Block, Stratified, Unequal
2. Blinding: Single-blind, double-blind study
3. Control group: It can be a placebo-controlled study, or there can be an active comparator arm.

**Systematic review:** it is, in short, a summary of clinical literature. It entails a critical assessment and evaluation of all clinical research on a particular clinical issue. They include all the studies on that clinical issue no matter what their study design if they are considered valid.

**Meta-analysis:** It is a statistical procedure for combining numerical data from multiple separate studies. This combination of data from various studies increases the sample size, thereby, increasing the statistical power of the analysis. A meta-analysis is usually conducted in the context of a systematic review.

There are other forms of studies which I have not discussed like animal research studies & test-tube lab research as these studies are conducted by individuals deep into basic research, although, I am not suggesting that clinicians can't do it.

## How to select a study for your research?

To answer this question we have to ask the following questions:

1. Are you going to assign exposure or intervention?

If yes then it is an experimental study.

If no then it is an observational study.

2. If it is an experimental study, will the intervention be allocated randomly?

If yes then it is a randomized clinical trial.

If no then it is a non-randomized clinical trial.

3. If it is an observational study, then will there be a comparison group?

If yes then it is an analytical study.

If no then it is a descriptive study (case reports, case series).

4. If it is an analytical study then when will the outcomes be measured?

- i. Sometime after the intervention or exposure, then it is a cohort study (Exposure to outcome).
- ii. At the same time as exposure and intervention, then it is a cross-sectional study.
- iii. Before the exposure was determined, then it is a case control study (Outcome to exposure).

This sequence of questions can guide you to select a proper study design, but that is just the beginning. A well-designed study requires a good team with diligent team members who play important roles of data collection and maintenance, accurate analysis and finally appropriate representation of your research. It is always advisable to perform a pilot study before attempting a full-scale study (especially, if it is an RCT) to ascertain the feasibility, test the experimental design, obtain preliminary data for power analysis as well as to iron out design flaws of the study. It also helps to get the entire team prepared for the study.



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# Journal Watch



Dr. Priyank Chelawat

Our man from Mandsaur is the proud father of twins. Whenever he gets any spare time from the double trouble that he has procreated, he seeks refuge in reading and playing video games. Some people would call that escapism but we have a much more open mind!

His zen-sounding philosophy in life, “The more you sweat in peace, the less you bleed in war” is equally confusing and he has promised to explain it in writing in words; he has reached about halfway through the 500 pages needed to translate that sentence into plain English.

His two passions in life are exploring new places and new foods and he then, expresses his emotions about these by penning poems, which mercifully, he has yet to inflict upon us.

His long-term goal, in his own words, is “to leave Mandsaur (my hometown) a better place than I found it.” Aha, do we detect a future corporator, or dare we hope, an MP?

## Article Reviewed:

Gastrointestinal Endoscopy Editorial Board top 10 topics: advances in GI endoscopy in 2018 Jonathan Cohen, MD, David J. Desilets, MD, Joo Ha Hwang, MD, Kondal R. Kyanam Kabir Baig, MBBS, Felix W. Leung, MD, Jennifer L. Maranki, MD, Patrick I. Okolo, III, MD, Lee L Swanstrom, MD, Amitabh Chak, MD

## Commentary -

GI Endoscopy is a rapidly changing and continually evolving discipline. An interesting cross mark review article was published in the Gastrointestinal endoscopy journal (GastrointestEndosc2019;90:35-43.)

The American Society for Gastrointestinal Endoscopy’s Gastrointestinal Endoscopy Editorial Board reviewed original endoscopy-related articles published during 2018 in Gastrointestinal Endoscopy and 10 other leading medical and gastroenterology journals (based on impact factor).The 9-member board independently identified 10 areas of endoscopic research they considered a top priority based on the criteria of significance, novelty, impact on national health, and impact on global health.This document summarizes these “Top 10” endoscopic advances of 2018.

### **1.Methods to increase adenoma detection rate(ADR) mature - ADR is a validated quality metric for effectiveness of colonoscopy.**

In colon cancer prevention, Devices attached to the tip of colonoscopes may increaseADR, presumably by flattening out folds during the examination. Example - Endocuff(Olympus), Endorings (USEndoscopy). Additional techniques for improvingADR include performing retroflexion in the right-sided colon segment or even repeating the examination of the right-sided colon. Newer methods - balloon-assisted colonoscopy



## 2. ENDOSCOPIC BARIATRIC SURGERY IS INTEGRATED INTO PATIENT TREATMENT ALGORITHMS-

Endoscopic intragastric balloon placement remains an important part of some GI practices and new balloons continuing to appear in the market. Endoscopic sleeve gastroplasty as a primary weight-loss procedure continues to gain traction. Bariatric programs are increasingly integrating endoscopic sleeve gastroplasty into treatment protocols. A valuable contribution of endoscopy to bariatric care is the treatment of post surgical adverse events, which increasingly rely on endoscopic and radiologic interventions for first-line treatments.

## 3. EMR, ESD, EFTR: DIFFERENT STROKES FOR DIFFERENT GROWTHS

The literature on endoscopic resection of GI neoplasia continued to evolve in 2018 with a greater emphasis on identifying the subset of patients who benefit from EMR, ESD, or EFTR. EMR remains the bedrock resection technique for many GI endoscopists.

The appropriate application of electrosurgical energy at controlled settings can improve outcomes. Cold snare resection is another emerging attractive option because of a perception that it may lead to less risk of bleeding and perforation.

ESD has become an established technique capable of en bloc resection. Two large series this year highlight its utility as sole therapy in treating early gastric cancer using established criteria.

Japanese experts also broadened the application of ESD of neoplastic lesions in the setting of ulcerative colitis, highlighting its feasibility and associated difficulty.

Emergence of EFTR came to the fore in 2018. Many published studies examined the use of EFTR as a single-step resection device. This device may make the resection of difficult lesions not amenable to standard methods more accessible.

## 4. AI IN ENDOSCOPY: GETTING REAL

AI and the application of deep learning systems to detect and diagnose GI pathology from computational analysis of endoscopic images have captivated the imagination for decades. In 2018 a number of investigators demonstrated that this technology is on the verge of clinical use.

Urban et al presented a model based on the convoluted neural network developed by the authors was able to detect polyps with a 96.4% accuracy. Another model was developed for histologic characterization of polyps based on NBI images.

Mori et al presented a large prospective series that demonstrated application of CAD for real-time classification using NBI or staining and magnification with an endocytoscopy lens integrated on the colonoscope. The negative predictive value rates of >92% for distal diminutive lesions was irrespective of operator expertise, with full assessment of the polyps in under a minute. This study also stands out from prior reports in that it was conducted during real-time colonoscopy rather than post hoc review of still and/or video images.

A third area of great potential clinical value in 2018 used AI CAD systems to distinguish superficial (endoscopically resectable) from invasive cancer.

AI had a major debut in 2018, demonstrating proof of concept in areas of compelling clinical need.

## **5. UNCOVERED METAL STENTS REDISCOVERED AS THE PREFERRED CHOICE FOR MALIGNANT BILIARY OBSTRUCTION**

Two thoroughly conducted studies suggested that despite prior dogma, uncovered biliary stents may be preferred for malignant biliary obstruction because uncovered stents cost less, covered stents may not lead to greater patency as previously supposed, and uncovered stents are associated with lower rates of adverse events such as cholangitis, cholecystitis, and stent migration.

## **6. YIN AND YANG OF LAMSs (LUMEN APPOSING METAL STENTS) FOR PANCREATIC FLUID COLLECTIONS AND NECROSECTOMY**

Several studies investigating the use of LAMSs for the management of peripancreatic fluid collections including pseudocysts and walled-off necrosis (WON) were published in 2018.

An argument for placement of a LAMS for WON as opposed to plastic stents is that LAMS create stable access, allowing for direct endoscopic necrosectomy without the need to perform repeated balloon dilations of the cystenterostomy tract.

Safety and efficacy of LAMS was demonstrated in a meta-analysis.

LAMS were also examined in their use and demonstrated a high rate of technical and clinical success for drainage of post surgical fluid collection, to create GI anastomosis (Gastroenterostomy or enteroenterostomy) and choledochoduodenostomy

## **7. ANSWERING THE CALL: PROGRESS TOWARD MORE-EFFECTIVE DUODENOSCOPE AND ECHOENDOSCOPE REPROCESSING.**

Multiple societies, the Centers for Disease Control and Prevention, and the U.S. Food and Drug Administration convened in 2016 to address infectious outbreaks of multidrug-resistant organisms transmitted by duodenoscopes and echoendoscopes.

Bartles et al compared double cycles of high-level disinfection compared with a single cycle, albeit with only 1 round of manual cleaning, and found the added step of no benefit in a center with a low prevalence of contaminated scopes on background surveillance culture.

Adenosine triphosphate (ATP) testing was reaffirmed this year as a surrogate quality measure for manual cleaning.

Two articles this year addressed the concern of suboptimal drying of endoscope channels, a condition that predisposes to the growth of organisms such as *Pseudomonas* during storage.

Assessments were made with a boroscope for water droplets and ATP testing for bioburden. Significantly more fluid droplets were evident and ATP bioluminescence values were higher for manual drying compared with automated drying

## 8. NOVEL DETECTION METHODS AND ABLATION TECHNOLOGIES IMPROVE THE MANAGEMENT OF BE

Although sedated EGD is currently the standard method for diagnosing BE, it is clearly not very effective.

BE is detected in less than 10% of patients before the development of esophageal adenocarcinoma

In 2018 investigators reported a new encapsulated balloon device that selectively sampled the distal esophagus and a novel panel of 2 methylated DNA biomarkers that were able to detect BE and cancer with 90% sensitivity and 92% specificity.

Another small pilot study combining an encapsulated sponge method for sampling the esophagus with methylated markers also reported a very high sensitivity and specificity.

Mucosal resection and radio frequency ablation have become the main endoscopic methods for eradication of dysplastic BE. However, some BE patients do not respond. A meta-analysis of 148 patients reported in 11 studies suggested that cryoablation may be effective in patients whose BE is refractory to radio frequency ablation.

## 9. EUS-GUIDED INTERVENTIONS DEVELOPED AS VIABLE SURGICAL ALTERNATIVES

EUS-guided interventions continued to be an important topic in 2018.

Two South Korean randomized clinical trials compared EUS-guided access versus ERCP for malignant biliary obstruction. showed similar technical and clinical success rates (>90%) for EUS-BD and ERCP, but the EUS-BD group had longer stent patency, lower rates of adverse events, and less need for reintervention.

2 studies reported success of EUS guided choledochoduodenostomy using LAMSs.

Interventional EUS-guided approaches have also been developed to address liver disease to enable liver biopsy sampling and portal pressure gradient measurements. A meta-analysis and systematic review demonstrated the safety and effectiveness of EUS-guided liver biopsy sampling, with an overall histologic yield of 93.9% and an adverse event rate of 2.3%. Although the details of the technique are still in development, this procedure is a reasonable alternative to either a percutaneous or transjugular approach.

These 2 techniques have the potential to greatly expand the role of EUS in the evaluation of patients with liver disease. Additional interventional EUS procedures, such as EUS guided gastrostomy-assisted ERCP in patients with altered anatomy and EUS-guided cholecystostomy procedures, are also gaining traction as viable alternatives to laparoscopic procedures.

## 10. NEW APPROACHES FOR GI BLEEDING

Lower GI bleeding, especially diverticular bleeding, remains a challenge for endoscopic management. In the past decade the approach to lower GI bleeding has changed, and it has been suggested that an aggressive early colonoscopy and therapy strategy is successful in identifying and treating a potential diverticular source.

Band ligation is more effective than clipping in treating diverticular hemorrhage. A novel new technique - endoscopic detachable snare ligation, specifically designed for therapy of diverticular

Bleeding was introduced.

Prophylaxis against GI bleeding suggested that routine prophylactic acid suppression is used in critically ill patients who are at low risk for bleeding and also in non critically ill patients who are at very low risk for bleeding where it is unnecessary, thereby increasing the risk for serious acute adverse events such as Clostridium difficile infection and hospital-acquired pneumonia.

**Conclusion -**

**Acknowledging there may still be some bias and subjectivity, the board trusted that the 10 advances listed above will interest readers by summarizing last year's endoscopic advances, guide educators by defining new endoscopic techniques that need to be propagated in clinical practice, and focus investigators on priority areas for research.**

# Know Your Representative



Dr. Abhimanyu Basu is a confirmed academician, serving as a professor in the Department of Surgery at IPGMER, Kolkata. A multi-faceted personality, when not busy hectoring his PGs, he likes to read and travel, not necessarily in that order. He doesn't believe in god but claims to be a follower of Mahatma Gandhi, not in the philosophical sense but in the desire to travel the length and breadth of the country. Of course, while the Father of the Nation travelled in the Third Class Unreserved Compartment, our Bhadraklok friend is a bit fonder of the finer things in life and is looking for someone to sponsor his travels by First Class Air! Any takers?

Our North Zone EC member, Dr. Nikhil Singh is a domesticated guy, loving to spend time beautifying his home and with his first love, his family. His second love (hotly disputed by the aforementioned first love) is his Harley Davidson motorbike, which he takes around for a spin at the drop of a hat, drawing admiring glances from the swooning damsels of Lucknow, his hometown. A fitness enthusiast, he is adept at running marathons. He is the guy to go to when you are in trouble, because, by his own admission, he has difficulty in refusing help.

All the macho exterior hides a truly sentimental soul, as his ultimate ambition is to start a free coaching center for the children from the economically weaker sections of the society to help them prepare for the entrance tests to various professional courses.



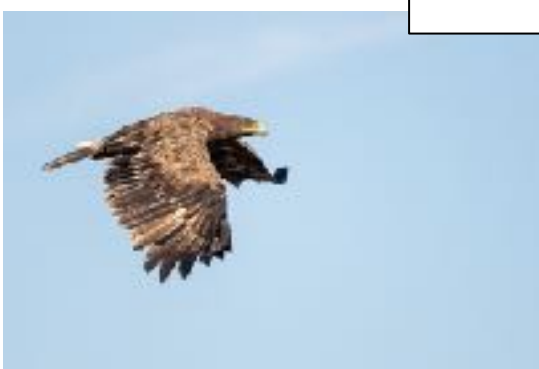
# Hobby Corner



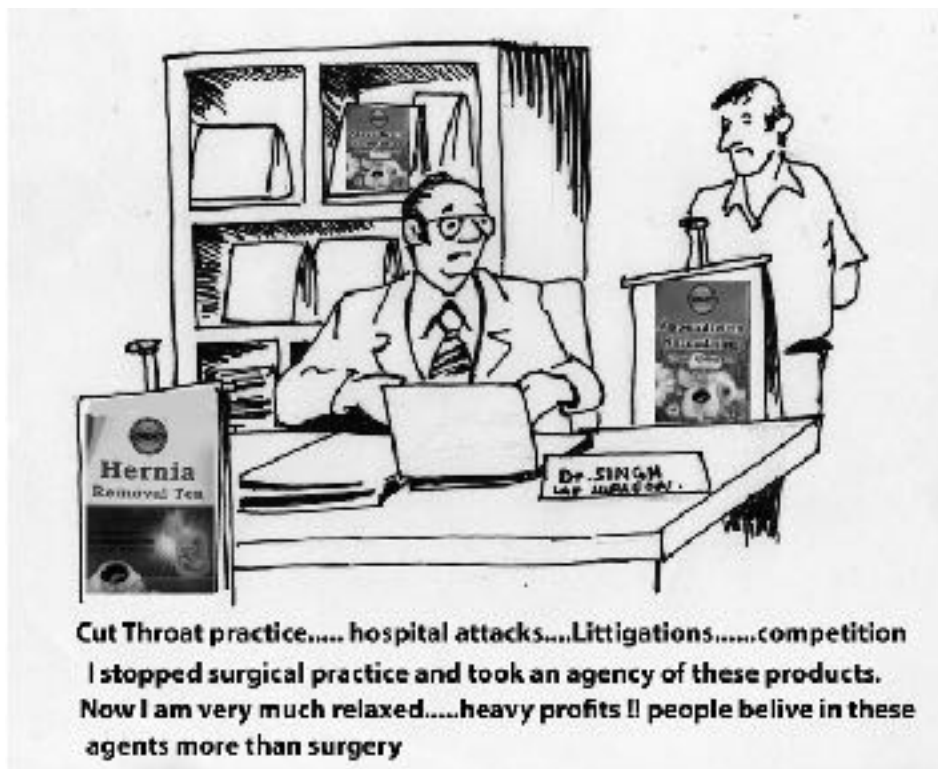
Dr. S. Soppimath represents the South Zone in our EC. He is an eternal student, reading and watching surgical videos, forever wanting to acquire new skills. His ever smiling face and helpful nature is proof of his approach to life - love all and help your fellow men (and women and children), - spreading goodwill and cheer all around him. He has full faith in Cosmic Karma to get his just returns. He is well known in his inner circle for his passion for photography, especially nature photography (Oh, all these subspecializations!). But apart from these, he enjoys music and reading.



He has another hidden talent - he is a much sought after motivational speaker for the youth, especially in the schools and colleges of his hometown. His ultimate ambition sounds quite simplistic but actually reveals his indepth perceptiveness - 'be happy, contented and at peace with life'!



## MAS Masti



Dr. Jobi Abraham

## Prashna India

Dr VK Kapoor, Professor of Surgical Gastroenterology at SGPGIMS Lucknow, a member of AMASI, has launched a FREE online education portal - Prashna India - where students/ surgeons can ask (post) their questions. The questions are answered by experts in respective topics/ areas and the answers are posted online.

In the last 5 years, more than 300 students/ surgeons from all parts of India have asked more than 700 questions which have been answered by more than 70 experts from India as well as abroad. These questions and answers are available on Prashna India website for free.

Prashna India also conducts live online case presentations/ discussions and open-house question-answer sessions called Ru-Ba-Ru. More than 25 such sessions have been conducted so far with a maximum of 44 students from 22 centers attending one such session. Audio recordings of these sessions are available on request. Videos of last two Ru-Ba-Ru sessions are available to view on Facebook site of Prashna India 29th January and 3rd February 2019.

Prashna India can be visited at <http://prashna-india.weebly.com/>

## Upcoming Events

Event	Venue	Date	Organizer
Cadaver course for Lap GI Surgery	JIPMER, Puducherry	7 <sup>th</sup> -8 <sup>th</sup> December, 2019	Dr. Biju Pottakat
AMASI Sectional program at ASICON2019	Bhubaneshwar	20 <sup>th</sup> December, 2019	AMASI
FMAS Skill Course & Examination	Rajkot	3 <sup>rd</sup> -5 <sup>th</sup> January, 2020	Dr. Nikunj Patel
Safe Lap Chole Program	Kolkata	19 <sup>th</sup> January, 2020	Dr. Jugindra/Dr. M. L. Saha
FMAS Skill Course & Examination	Ujjain	24 <sup>th</sup> -26 <sup>th</sup> January, 2020	Dr. Mayank Gupta
Rural Surgery Camp	Medinipur, West Bengal	14 <sup>th</sup> February, 2020	Dr. Tapan Kumar Biswas
Rural Surgery Camp	Hemalkasa, Maharashtra	15 <sup>th</sup> , 16 <sup>th</sup> February, 2020	Dr. Dilip Gode
FMAS Skill Course & Examination	Pune	21 <sup>st</sup> -23 <sup>rd</sup> February, 2020	Dr. Shrikant Kurhade
FMAS Skill Course & Examination	Kolkata	28 <sup>th</sup> February - 1 <sup>st</sup> March, 2020	Dr. Biswarup Bose
FMAS Skill Course & Examination	Chandigarg	3 <sup>rd</sup> - 5 <sup>th</sup> April, 2020	Dr. Rajiv Sharma
FMAS Skill Course & Examination	Mangaluru	17 <sup>th</sup> - 19 <sup>th</sup> April, 2020	Dr. Roshan Shetty
AMASICON2020	New Delhi	1 <sup>st</sup> - 4 <sup>th</sup> October, 2020	Dr. Deborshi Sharma



## 1. ORIENTATION PROGRAM IN BASIC LAPAROSCOPY (JIPMER, PUDUCHERY)

### Who Should Attend:

All general surgeons, surgical gastroenterologists, urologists, gynecologists who wish to get oriented and develop basic hand-eye co-ordination skills to enable performance of basic laparoscopic surgeries.

Course Length: 2 days

Intake: 8 delegates in each batch on first come first serve basis.

### Inclusion:

1. Lunch on both days.
2. Tea/coffee during the two breaks along with cookies/biscuits.
3. Course material

### Exclusion:

Anything not mentioned above. The candidates will have to make their own arrangements for transportation and local accommodation. If available, accommodation at the JIPMER guesthouse will be provided on payment of necessary charges.

**Course Fees: 8000/- + 1440/- (GST@18%) = 9440/-**

## 2. ORIENTATION PROGRAM IN OSTOMA (JIPMER, PUDUCHERY)

### Who Should Attend:

PG residents in surgery, or freshly passed out M.S/DNB General Surgeons.

Course Length: 1 day

Intake: 8 delegates in each batch on first come first serve basis.

### Inclusion:

1. Lunch on both days.
2. Tea/coffee during the two breaks along with cookies/biscuits.
3. Course material

### Exclusion:

Anything not mentioned above. The candidates will have to make their own arrangements for transportation and local accommodation. If available, accommodation at the JIPMER guesthouse will be provided on payment of necessary charges.

**Course Fees: 2500/- + 450/- (GST@18%) = 2950/-**

### 3. ORIENTATION IN ADVANCED MINIMAL ACCESS GI SURGERY (JIPMER, PUDUCHERY)

#### Who Should Attend:

Trainees and faculty of surgical specialty like General Surgery, Surgical Gastroenterology, Onco Surgery, Pediatric Surgery who had completed the Orientation in Basic Laparoscopy course

Course Length: 2 days

Intake: 8 delegates in each batch on first come first serve basis.

#### Inclusion:

1. Lunch on both days.
2. Tea/coffee during the two breaks along with cookies/biscuits.
3. Course material

#### Exclusion:

Anything not mentioned above. The candidates will have to make their own arrangements for transportation and local accommodation. If available, accommodation at the JIPMER guesthouse will be provided on payment of necessary charges.

**Course Fees: 15000/- + 2700/- (GST@18%) = 17700/-**

### 4. ORIENTATION IN BASIC ROBOTIC SURGERY (JIPMER, PUDUCHERY)

#### Who Should Attend:

Surgeons performing basic and advanced laparoscopic surgery and seriously considering progressing to robotic surgery

Course Length: 3 days (Monday – Wednesday)

Intake: 2 delegates in each batch on first come first serve basis..

#### Inclusion:

1. Lunch on both days.
2. Tea/coffee during the two breaks along with cookies/biscuits.
3. Course material

#### Exclusion:

Anything not mentioned above. The candidates will have to make their own arrangements for transportation and local accommodation. If available, accommodation at the JIPMER guesthouse will be provided on payment of necessary charges.

**Course Fees: 22500/- + 4050/- (GST@18%) = 26550/-**

For Programs 1-4, contact for registration and assistance: 7094640190, [sgcourses@jipmer.edu.in](mailto:sgcourses@jipmer.edu.in)  
(CC to [amasi.india@gmail.com](mailto:amasi.india@gmail.com))

## OBSERVERSHIP IN BASIC LAPAROSCOPIC SURGERY:

Observership to be offered for 15 days in basic laparoscopic surgery, viz. laparoscopic cholecystectomy, hernia and appendectomy. Observers should be AMASI life members and should have attended a FMAS skills course (not the examination). The cost of travel, accomodation and food to be borne by the delegates. The following centers have offered Observerships:

### North Zone:

1. SMS Medical College, Jaipur, Dr. Rajendra Mandia.
2. CMC Ludhiana, Dr. Navneet Kumar Chaudhry
3. Government Medical College, Chandigarh, Dr. Rajeev Sharma

### Central Zone:

1. RML Medical College, Delhi, Dr. Deborshi Sharma.
2. Balaji Hosital, Raipur, Dr. Devendra Naik
3. Apollo Hospital, Indore, Dr. Rakesh Shivhare
4. Rainbow Hospital, Agra, Dr. Himanshu Yadav

### West Zone:

1. MGM Medical College, Aurangabad, Dr. Pravin Suryavanshi.
2. Panchsheel Hospital, Ahmedabad, Dr. Kaushik Shah.
3. GMC, Nagpur, Prof Raj Gajbhaiye
4. Zen Hospital, Mumbai, Roy Patankar

### East Zone:

1. AIIMS, Bhubaneshwar, Dr. Manas Sahoo
2. ILS Kolkata, Dr. Om Tantia/Dr. Tamonas Chaudhary
3. Nemcare Superspeciality Hospital, Guwahati, Dr. Manoj Kumar Chaudhary
4. IPGMER Kolkata, Dr. M. L. Saha
5. Shija Hospital, Imphal, Dr. Jugindra
6. Nazareth Hospital, Shillong, Dr. Jayanta Kumar Das

### South Zone:

1. Gem Hospital Trichur, Dr. Varghese
2. Yashoda Hospital, Secunderabad, Dr. Laxman Sastry.

For allotment of observership, please contact [amasi.india@gmail.com](mailto:amasi.india@gmail.com)

FIRST ANNOUNCEMENT



# AMASICON 2020

15<sup>th</sup> International Congress of the  
Association of Minimal  
Access Surgeons of India  
New Delhi  
[www.amasicon2020.com](http://www.amasicon2020.com)

**Theme :**  
Minimal Access Surgery -  
Past, Present & Future

**Venue:**  
The Leela Ambience Convention Hotel, New Delhi

**Dates:** 1st to 4th October 2020



## AMASI

Association of Minimal Access Surgeons of India

45-A, Pankaja Mill Road, Ramanathapuram,  
Coimbatore - 641 045. Ph : 0422- 4223330

Email : [amasi.india@gmail.com](mailto:amasi.india@gmail.com)

Web : [www.amasi.org](http://www.amasi.org)