



Sri Lakshmi Narayana Institute of Medical Sciences

From
Dr K Balagurunathan,
Professor and Head,
General Surgery,
Sri Lakshmi Narayana Institute Of Medical Sciences
Bharath Institute of Higher Education and Research,
Chennai.

Date 3/6/2020

To
The Dean,
Sri Lakshmi Narayana Institute Of Medical Sciences
Bharath Institute of Higher Education and Research,
Chennai.

Sub: Permission to conduct value-added course: ASEPSIS AND STERILIZATION IN SURGERY

Dear Sir,

With reference to the subject mentioned above, the department proposes to conduct a value-added course titled: **ASEPSIS AND STERILIZATION IN SURGERY ,30 hours course on JULY 2020 TO OCT 2020**. We solicit your kind permission for the same.

Kind Regards

PROFESSOR & HOD
DEPARTMENT OF GENERAL SURGERY
Sri Lakshmi Narayana Institute of Medical Sciences
PONDICHERRY - 605 002

DR K BALAGURUNATHAN

HOD, GENERAL SURGERY

FOR THE USE OF DEANS OFFICE

Names of Committee members for evaluating the course:

The Dean: DR RAJASEKAR

The HOD: DR K BALAGURUNATHAN

The Expert: DR ASAYAS BOSCO CHANDRA KUMAR

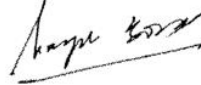
The committee has discussed about the course and is approved.



Dean
DEAN

(Sign & Seal)

SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES
OSUDU, AGARAM VILLAGE,
KODAPAKKAM POST,
PUDUCHERRY - 605 502



Professor General Surgery
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Kudapakkam, Puducherry-605 502

Subject Expert

(Sign & Seal)



PROFESSOR & HOD
DEPARTMENT OF GENERAL SURGERY
Sri Lakshmi Narayana Institute of Medical Sciences
PONDICHERRY - 605 502

(Sign & Seal)



OFFICE OF THE DEAN

Sri Lakshmi Narayana Institute of Medical Sciences

OSUDU, AGARAM VILLAGE, VILLIANUR COMMUNE, KUDAPAKKAM POST,
PUDUCHERRY - 605 502.

[Recognised by Medical Council of India, Ministry of Health letter No. U/12012/249/2005-ME (P-II) dt. 11/07/2011]
[Affiliated to Bharath University, Chennai - TN]

Circular

07.06.2020

Sub: Organising Value-added Course: ASEPSIS AND STERILIZATION IN SURGERY

With reference to the above mentioned subject, it is to bring to your notice that Sri Lakshmi Narayana Institute of Medical Sciences, **Bharath Institute of Higher Education and Research** is organizing a value added course “**ASEPSIS AND STERILIZATION IN SURGERY**”.

The application must reach the institution along with all the necessary documents as mentioned. The hard copy of the application should be sent to the institution by registered/ speed post only so as to reach on or before 1ST JULY 2020. Applications received after the mentioned date shall not be entertained under any circumstances.

Dean

SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES
OSUDU, AGARAM VILLAGE,
KODAPAKKAM POST,
PUDUCHERRY - 605 502

Course Proposal

Course Title: ASESPPSIS AND STERILIZATION IN SURGERY

Course Objective:

1. Definitions
2. Different methods of sterilization/disinfection
3. Operation theater plan
4. Principles in operation theater
5. Scrubbing and wearing OT gown
6. Glove handling techniques
7. Prevention of infections in operation theatre
8. Precautions in operation theatre

Course Outcome: On successful completion of the course the students will be able to understand the septic environment of operation theatre and learn surgical scrubbing and glove wearing techniques

Course Audience: MBBS UNDERGRADUATES

Course Coordinator: DR ASAYAS BOSCO CHANDRA KUMAR

Course Faculties with Qualification and Designation:

1. Dr Balagurunathan , Prof and HOD General Surgery
2. Dr Asayas Bosco Chandra Kumar, Prof General Surgery

Course Curriculum/Topics with schedule (Min of 30 hours)

SINo	Date	Topic	Time	Hours	Faculty
1.	15/7/2020	1. Definitions	4-6PM	2	Dr Balagurunathan
2.	17/7/2020	2. different methods of sterilization/disinfection	4-7PM	3	Dr Asayas Bosco Chandra Kumar
3.	19/7/2020	2. different methods of sterilization/disinfection	4-6PM	3	Dr Balagurunathan

4.	21/7/2020	3.Operation theater plan	4-6PM	2	Dr Asayas Bosco Chandra Kumar
5.	24/7/2020	4.principles in operation theater	4-7PM	3	Dr Balagurunathan
6.	1/8/2020	5.scrubbing and wearing OT gown	4-7PM	3	Dr Asayas Bosco Chandra Kumar
7.	3/8/2020	5.scrubbing and wearing OT gown	4-7PM	3	Dr Balagurunathan
8.	5/8/2020	6. glove handling techniques	4-6PM	2	Dr Asayas Bosco Chandra Kumar
9.	7/8/2020	6. glove handling techniques	4-6PM	2	Dr Balagurunathan
10.	10/8/2020	7. prevention of infections in operation theatre	4-7PM	3	Dr Asayas Bosco Chandra Kumar
11.	11/8/2020	8. precautions in operation theatre	4-6PM	2	Dr Balagurunathan
12.	15/8/2020	8. precautions in operation theatre	4-6PM	2	Dr Asayas Bosco Chandra Kumar
			TOTAL HOURS	30	

REFERENCE BOOKS: (Minimum 2)

1. Schwartz's Principles of Surgery, 11th Edition

Bailey And Love's Short Practice of Surgery 27th Ed

**ASEPSIS
&
STERILIZATION IN SURGERY**

PARTICIPANTS HAND BOOK

COURSE DETAILS

Particulars	Description
Course Title	ASESPSIS AND STERILIZATION IN SURGERY
Course Code	GS01
Objective	1. Definitions 2. different methods of sterilization/disinfection 3. Operation theater plan 4. principles in operation theater 5. scrubbing and wearing OT gown 6. glove handling techniques 7. prevention of infections in operation theatre 8. precautions in operation theatre
Further learning opportunities	Energy sources
Key Competencies	On successful completion of the course the students will be able to understand the septic environment of operation theatre and learn surgical scrubbing and glove wearing techniques
Target Student	MBBS Students
Duration	30hrs JULY 2020– OCTOBER 2020
Theory Session	10hrs
Practical Session	20hrs
Assessment Procedure	Multiple choice questions

DEFINITIONS

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Asepsis Asepsis means organisms are prevented to access the patient or individual.

Sterilisation It is freeing an article from pathogens by removing or killing all bacteria, spores, fungi and viruses.

Disinfection It is killing of all bacteria, fungi and viruses but not spores.

Antisepsis Antisepsis is inhibition of growth of microorganisms.

DIFFERENT METHODS OF DISINFECTION

Physical Agents

- **Burning or incineration** is used to disinfect contaminated articles like dressings.
- **Hot-air oven:** Here temperature used is 160 to 180° for one hour.
- **Boiling:** It kills bacteria but not spores and viruses. Temperature is between 90 to 99°. It is used to disinfect syringes, utensils. It is not useful for gloves, rubber materials.

- **Autoclave:** It is steam under pressure.
 - Temperature attained is between 120 and 135°
 - It is sterilised for 20 minutes with 15 pounds/sq inch (2 kg per square cm) pressure
 - kills all organisms including spores.
 - Completeness of sterilisation is confirmed by using specific gelatin protein which precipitates only in steam under pressure for 20 minutes.

-Green coloured strip turns black if autoclave is complete (The BowieDick test) (signaloc).

-Surgical gloves, linen, cotton, paper, bottles, plastics, dressings, surgical instruments are sterilised by this method.

-Sharp and plastic instruments cannot be sterilised by this method. Bacillus thermophilus spores are used to assess the completeness of the sterilisation in mass scale.

- Double autoclaving is done for instruments of orthopaedic or ophthalmic surgeries. Modern rapid autoclaves can sterilise in 3 minutes with 143° temperature or in 10 minutes with 121° temperature.

• Radiation:

Ionising type of radiation:

-Atomic gamma radiation is used for commercial purpose to sterilise suture materials, disposable materials in packets.

-It is viable, safe and cheaper.

-All disposable materials like gloves, tubes are sterilised by this method. –

Nonionizing radiation: either infra-red radiation or ultraviolet radiation is used to reduce the bacteria in air, water.

-Bacteria and virus are vulnerable to ultraviolet rays below 3000Å. Exposure to eyes and skin can cause burn injury.

Chemical Agents

- **Phenol:** It is used as standard to compare the efficacy of other agents.
- **Cresol** is more powerful and nontoxic. 5% solution is used. • **Lysol** is emulsified cresol with soap. 2% solution is effective.

Chlorhexidine (hibitane) is useful antiseptic.

- **Hexachlorophane:** It is not used in infants and children because it can get absorbed through intact skin in this age group causing severe neurotoxicity.
- **Dettol (chloroxylenol)** 5% solution is used.
- **Cetrimide** is cationic surfactant (cetavlon) 2% solution is used.
- **Savlon** is combination of cetrimide and hibatane. It is very commonly used antiseptic in operation theatres and wards.

• Halogens:

Bleaching powder. – Sodium hypochlorite.

EUSOL: Edinburg University solution contains sodium hypochlorite, boric acid and calcium hydroxide.

-Eusol bath is dipping the ulcer bearing part in dilute eusol solution for 30 minutes 2-3 times a day.

Iodine.

Iodophors: These are antiseptics and also sporicidals. They are non-irritant and do not stain skin. Povidone-iodine is a good example, which is commonly used. •

Alcohols: Ethyl or isopropyl alcohols are used.

- **Formaldehyde:** It is useful to disinfect the rooms like operation theatre. It is effective at a high temperature and humidity of 80-90%. It is commonly used to fumigate the room. 500 ml of formalin with one litre of water is boiled to get

formaldehyde vapour. Adding potassium permanganate to the same solution can create formaldehyde vapour. Room is kept closed for 12 hours.

- **Glutaraldehyde (cidex 2%)** : It is used to sterilise sharp instruments. Instruments should be dipped for 10 hours to achieve complete sterilisation. It is potent bactericide, sporicide, fungicide and viricide.

- **Hydrogen peroxide (H₂O₂)** : It is used as topical oxygen therapy. Because of its effervescence and release of nascent oxygen it removes the tissue debris. It is used to clean wounds, cavities, ulcers and as mouth wash, as ear drops to clear ear wax.

- **Acridine and proflavine** are orange-red coloured dyes used as antiseptics. It is effective against gram-positive and few gram-negative organisms. It retains its activity in pus and body fluids.

OPERATION THEATRE ROOM

Operation theatre is like a temple to all surgeons.

Theatre Plan

- Every operation theatre should have a waiting area, entrance, surgeon's changing and relaxing room, changing room and relaxing room for nurses, autoclave and sterilisation room, OT scrub area, all sets of instruments, instruments for anaesthesia, adequate number of racks, toilets, air – conditioned ventilator, OT tables, trolleys to shift patients, OT laundry, good light, C-ARM image intensifier.

- Operation theatre should have an adjoining postoperative ward. This ward should be close to the OT, easily accessible (as surgeon and anaesthetist should be able to rush to the postoperative ward in short period without changing their OT dress).
- In many theatres light music is played to calm the patient just before inducing.
- Easy to clean floor, roof and walls must be present.
- Instrument cleaning, washing, and arranging unit is present which keeps the instruments ready, packed and autoclaved as directed.
- Pathology room with facilities for frozen section and relaxing room for pathologists.

Principles of an Operation Theatre

- Airconditioning is a must to have a filtered continuous flow of air.
- Doors and windows should be kept closed as much as possible.
- Ward nurse should handover the patient to theatre nurse with all details, case sheets, tag, side of surgery, blood to be transfused, premedication details. While shifting the patient, ward nurse must take care of the air way and IV line of the patient, must keep tongue depressor, swabs, air-way in the trolley
- Patient should be shifted to theatre always in a trolley. Patient should remove all jewellery and wear theatre gowns, cap, feet covers.
- Patient must be transferred from ward trolley to theatre trolley, which should have modern accessories like oxygen, side guards, drip stand, oxygen masks, pulse oximetry placing area, tiltable couch.
- Patient's trolley and ward blankets should not be taken inside the operation theatre.

- Initially patient should be kept in preoperative room and later should be shifted to theatre. Anesthetist and surgeon and also theatre nurse should accompany the patient.
- Theatre nurse should confirm the consent form, case sheets, site and side of the surgery, etc.
- Separate theatre shoes should be worn by surgeons, anaesthetists, theatre nurses and assistants.
- Unnecessary movements, talking loudly, laughing, commenting should be avoided as patient may be awake especially when spinal anaesthesia is given.
- All persons entering the theatre should wear theatre dress (pant and shirt), cap, mask, footwear or shoes (shoes are ideal). Material for dress should be smooth, non-woven fabric, which is easily boilable. Cap should cover and conceal hair fully.

Clothes, dresses should be washed, cleaned, ironed and kept ready every day. Fresh, clean cotton blanket should be used to the patient in theatre.

- Ideally all mobile phones should be switched off inside the theatre.
- Any public person or relative of the patient should not be allowed inside the theatre. Selected people may be allowed only by prior permission from medical director of the hospital and from operating surgeon.
- One senior nurse is made in charge of all activities in the theatre like shifting patients, arranging theatre tables, autoclave and other sterilisation methods, cleaning the instruments, packing the instruments for autoclave. She decides the duties of her junior nurses and makes a list of nurses for that day surgical scrubbing. Operation theatre assistant and technicians are also under her supervision and should follow her instructions strictly. She should be answerable for any default and problems in the theatre occurred or created by her fellow nurses and theatre boys.
- Scrub nurse is the one, who washes to assist the surgeon, arranges the instrument table and gives instruments to surgeon during procedure. She should be well aware

of the steps of surgery, and instruments required. She should be alert, quick, and understandable.

- One nurse in each theatre works as a circulating nurse who provides additional instruments required during surgical procedure. She also takes care of the counting of the surgical mops and swabs used. Used mops or swabs should be kept hanging in mop rack or swab rack which should be visible to the operating team. Name, procedure and number of mops collected and used should be written on a blackboard. Scrub nurse and circulating nurse are fully in charge and responsible for swab counts. She also will be legally questioned and penalised along with the surgeon if there is negligence in mop counts.
- Theatre nurse and OT assistant should accompany the patient while handing over to postoperative nurse from OT.
- Patient should be shifted outside the OT once anaesthetist confirms the fitness for shift. It is the anaesthetist who decides when to shift, how to shift and how long the patient should be in postoperative ward.

Modes of infection and sepsis in OT

- Patient's skin
- Surgeon, nurses and OT technicians, by unclean hands, nostrils, throat, skin
- Contamination of OT floor and wall
- Improper sterilization
- Poor handling of instruments
- Poor packing and poor storage of instruments
- Theatre clothes, footwear and shoes
- Not disinfecting the OT properly and adequately after using the OT for infected cases

Scrubbing and Wearing OT Gown and Glove

- Both hands, forearms up to elbow joints should be rinsed with running water and soap.

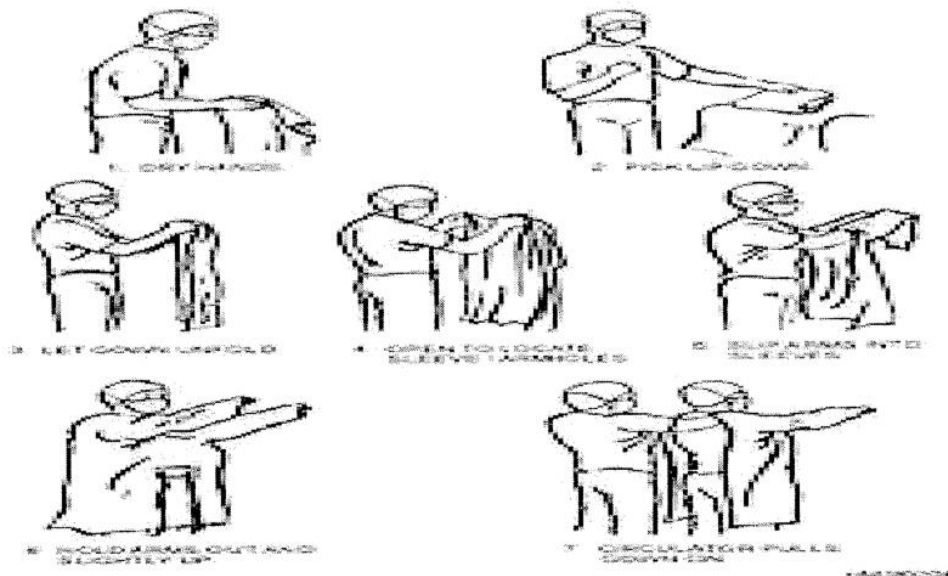
Any ring, jewellery, wristwatch should be removed prior to the scrub.

- Using brush and soap, finger nails, hands on both sides are cleaned. Then forearm is brushed and washed. Procedure is repeated three times (presently whether need to brush the hands are controversial).

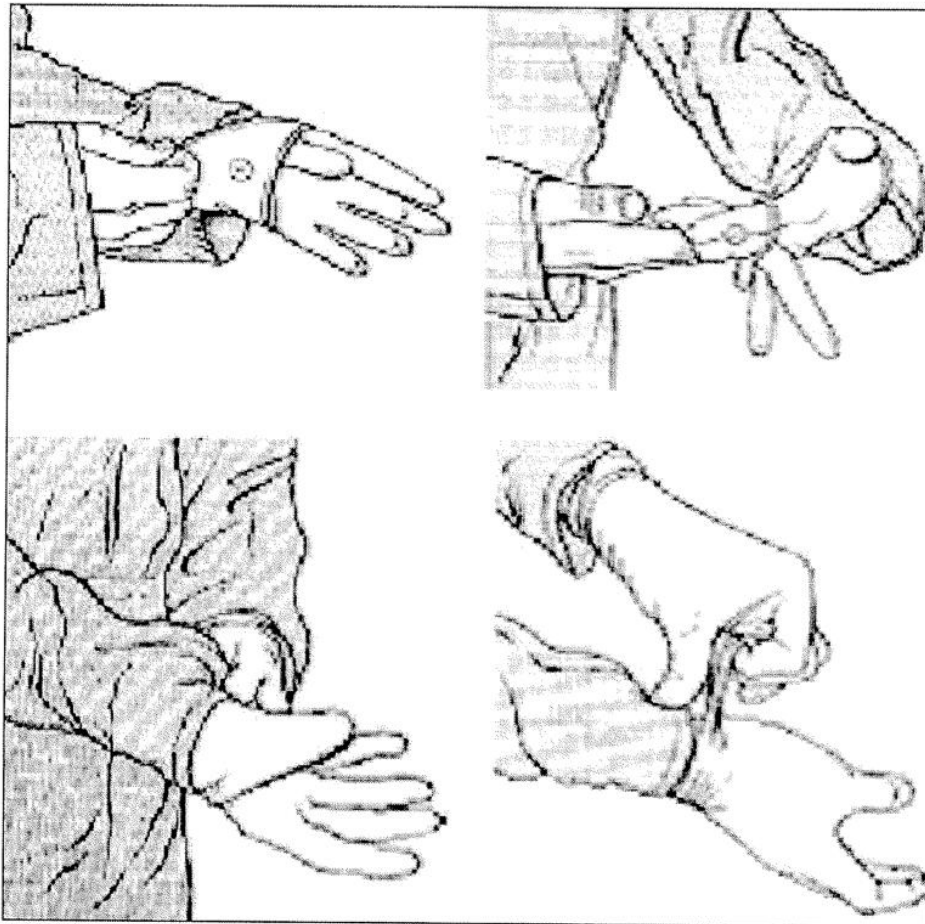
- After thorough rinsing the hands by running water, hands are washed with antiseptic solution and then with warm water.

- Once fully scrubbed, she/he should not touch with hands any objects or his/her own face or parts of body. She should keep her hands and fingers tucked with each other with forearm and hands outstretched.

- Using a sterile towel, forearm and hands are dried up. Both hands are inserted into the armholes of the sterile gown. The gown is not touched or pulled but both arms kept outstretched. Circulating nurse will pull the back tapes of the gown and ties it over the back



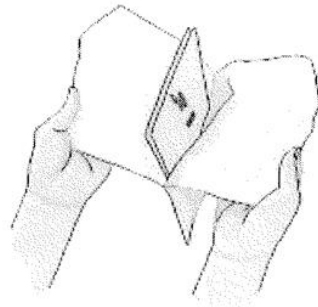
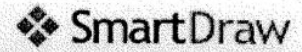
- A back wrap gown, has got two tapes to tie on the front aspect. After wearing gloves, one tape is given to the scrubbed scrub nurse/ surgeon who has already with gown and gloves. She/he will encircle the gown round and bring it in front and give to the surgeon to tie it with other tape.



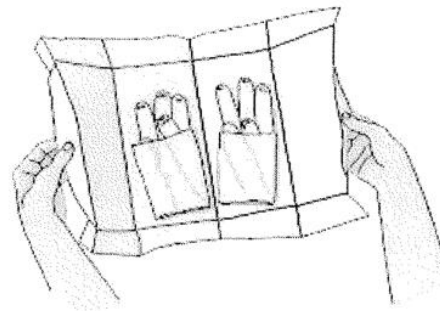
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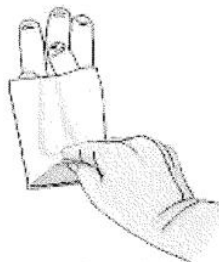
Sterile Gloves



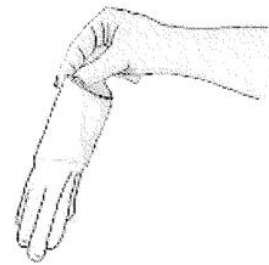
Two hands shown peeling back outer layer of package of sterile gloves.



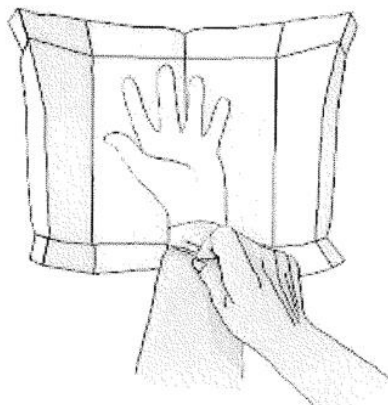
Two hands hold opened inner package of gloves.



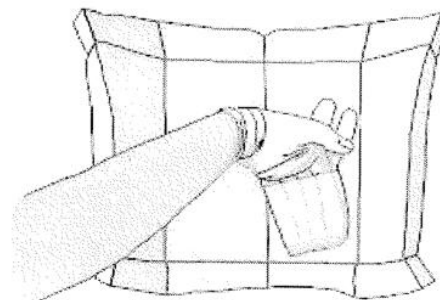
Hand grasps edge of folded cuff of sterile glove.



Hand lifts glove, holding so that fingers of glove dangle downward.



Left hand has been inserted into glove, right hand pulls glove on with cuff folded.



Fingers of gloved hand are being slid under cuff of second glove.

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Prevention of infection

- Cleaning of the patient's skin where incision is placed by povidone iodine, cetrimide, spirit
- Isolation of surgical area by proper draping with green towels
- Transparent sheeting of the skin through which skin incision is placed
- Adhesive films to the skin
- Use of on table parenteral antibiotic in major cases
- Always clean cases are done first and then infected cases
- Proper sterilisation
- Double autoclaving for orthopaedic and ophthalmology cases

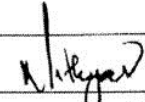
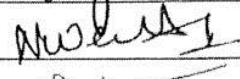

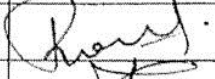
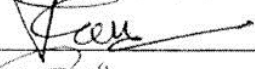
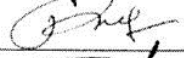
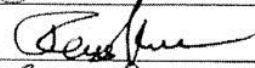
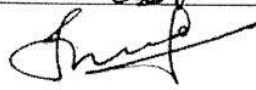
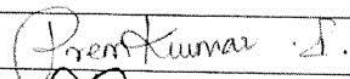
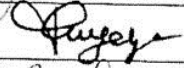
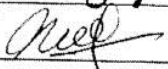
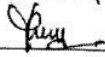
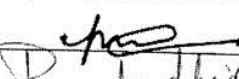
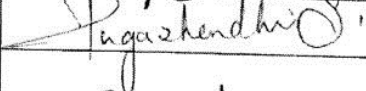
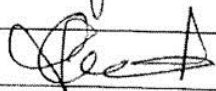
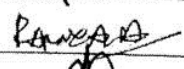
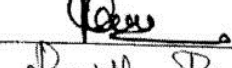
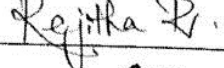
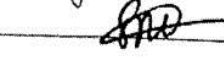
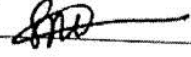
Precautions in an Operation Theatre

- In the absence of proper safety measures and precautions, OT is a place where one is prone for accidental trauma and injuries, which may be danger to patient as well as theatre personnel.
- Main danger exists in some anaesthetic agents, which may cause life-threatening explosions. It may cause burns, loss of vision, hearing loss, damage to OT, may also sometimes cause death. Ether is one, which can be explosive.
- An OT has got high power electric supply for its basic needs like aircondition, lights, machines, cautery, suction apparatus, other modern instruments like laparoscope, C- ARM, etc. Because of the presence of too many electric circuits and possibility of dangers of static electricity, theatre staff should take enough precautions to prevent any electric injury to patients and theatre personnel.
- Good earthing is essential.

- It is ideal to use theatre dresses made of cotton (cotton clothes) to patient, surgeon and nurses. Drapes and other materials should also be made of cotton.
- Rubber should be used wherever required like in wheel of trolley, Boyle's apparatus, mattresses, floor, wall of the theatre.
- When cautery is used, electric shock is common and so enough precautions has to be taken. Often cautery burns can occur to the patient.
- An electrician should be immediately available whenever there is problem like power failure, short circuit, default in any of the electrical instruments. Beware of possible anaesthetic explosions and electrical injuries in OT.

VALUE ADDED COURSE

ASEPSIS AND STERILIZATION IN SURGERY GS01
List of Students Enrolled JULY 2020 – OCTOBER- 2020

MBBS Student			
Sl. No	Name of the Student	Register No	Signature
1	NITHYA V	U11MB291	
2	NIVEDHIDHA D	U11MB292	
3	NIVETHA S	U11MB293	
4	PIVITHRA G N	U11MB294	
5	PONNI S	U11MB295	
6	PRADEEP KUMAR R	U11MB296	
7	PRANAV S KUMAR	U11MB297	
8	PRASANTH JEEVARAAM B	U11MB298	
9	PREM KUMAR I	U11MB299	
10	PRIYANGA S	U11MB300	
11	PRIYANKA J	U11MB301	
12	PRIYANKA K	U11MB302	
13	PRIYANKA R	U11MB303	
14	PUGAZHENDHI S	U11MB304	
15	PUSHPARAJ R	U11MB305	
16	RAM KUMAR S	U11MB306	
17	RAMYA A	U11MB307	
18	RANJITH ML	U11MB308	
19	REJITHA R	U11MB309	
20	REVATHI K	U11MB310	



NIVEETHA S
U11MA293
SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES

Annexure - IV

ASEPSIS AND STERILIZATION IN SURGERY

MULTIPLE CHOICE QUESTIONS

Course Code: GS01

I. ANSWER ALL THE QUESTIONS

1. freeing an article from pathogens by removing or killing all bacteria, spores, fungi and viruses is known as

- a. sterilization
- b. disinfection
- c. antiseptics
- d. asepsis

2. killing of all bacteria, fungi and viruses but not spores is called?

- a. sterilization
- b. disinfection
- c. antiseptics
- d. asepsis

2/2

3. inhibition of growth of microorganisms is known as

- a. sterilization
- b. disinfection
- c. antiseptics
- d. asepsis

4. Boiling method kills all except

- a. bacteria
- b. viruses
- c. Both A & B are Correct
- d. spores

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5. sharp instruments should not be sterilized with

- a. boiling
- b. autoclave
- c. Both A & B are Correct
- d. None of the above



6. EUSOL contains all except

- a. sodium hypochlorite
- b., boric acid
- c. calcium hydroxide.
- d. hydrogen peroxide



7. endoscopes are sterilized which method?

- a. autocaving
- b. boiling
- c. glutaraldehyde solution
- d. eusol solution



ASSESSOR NAME :

SIGNATURE :

DATE

Dr. M. SENTHILVELAN, MS.,
Reg. No: 53175
Professor General Surgery
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Kudapakkam, Puducherry-605 502.



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U11 MB 292

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Annexure - IV

ASEPSIS AND STERILIZATION IN SURGERY

MULTIPLE CHOICE QUESTIONS

Course Code: GS01

I. ANSWER ALL THE QUESTIONS

1. freeing an article from pathogens by removing or killing all bacteria, spores, fungi and viruses is known as
 a. sterilization
 b. disinfection
 c. antiseptics
 d. asepsis
2. killing of all bacteria, fungi and viruses but not spores is called?
 a. sterilization
 b. disinfection
 c. antiseptics
 d. asepsis
3. inhibition of growth of microorganisms is known as
 a. sterilization
 b. disinfection
 c. antiseptics
 d. asepsis
4. Boiling method kills all except
 a. bacteria
 b. viruses
 c. Both A & B are Correct
 d. spores



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5. sharp instruments should not be sterilized with
- a. boiling
 - b. autoclave
 - c. Both A & B are Correct
 - d. None of the above
6. EUSOL contains all except
- a. sodium hypochlorite
 - b., boric acid
 - c. calcium hydroxide.
 - d. hydrogen peroxide
7. endoscopes are sterilized which method?
- a. autocaving
 - b. boiling
 - c. glutaraldehyde solution
 - d. eusol solution

2/2

ASSESSOR NAME : DV ASAYAS BOSCO CHANDRA KUMAR

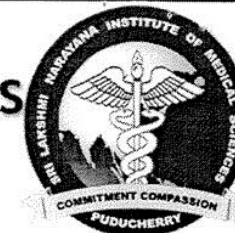
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Asayas



Sri Lakshmi Narayana Institute of Medical Sciences

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(Deemed to be University under section 3 of the UGC Act 1956)



CERTIFICATE OF MERIT

This is to certify that PRADEEP KUMAR R has actively participated in the Value Added Course on **ASEPSIS AND STERILIZATION IN SURGERY** held during **JULY 2020 TO OCT 2020** Organized by Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry- 605 502, India.

Professor General Surgery
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Kudapakkam, Puducherry-605 502.

**Dr. Asayas Bosco Chandra
Kumar**
RESOURCE PERSON

PROFESSOR & HOD
DEPARTMENT OF GENERAL SURGERY
Sri Lakshmi Narayana Institute of Medical Sciences
PONDICHERRY - 605 502
Dr. K BALAGURUNATHAN
COORDINATOR



Sri Lakshmi Narayana Institute of Medical Sciences

Affiliated to Bharath Institute of Higher Education & Research
(Deemed to be University under section 3 of the UGC Act 1956)



CERTIFICATE OF MERIT

This is to certify that NITHYA V has actively participated in the Value Added Course on **ASEPSIS AND STERILIZATION IN SURGERY** held during **JULY 2020 TO OCT 2020** Organized by Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry- 605 502, India.

Professor General Surgery
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Kudapakkam, Puducherry-605 502.
**Dr. Asayas BOSCO Chandra
Kumar**

RESOURCE PERSON

PROFESSOR & HOD
DEPARTMENT OF GENERAL SURGERY
Sri Lakshmi Narayana Institute of Medical Sciences
PONDICHERRY - 605 502

Dr. K BALAGURUNATHAN
COORDINATOR

Student Feedback Form

Course Name: **ASEPSIS AND STERILIZATION IN SURGERY**

Subject Code: **GS01**

Name of Student: PREM KUMAR Roll No.: U11MB299

We are constantly looking to improve our classes and deliver the best training to you. Your evaluations, comments and suggestions will help us to improve our performance

Sl. NO	Particulars	1	2	3	4	5
1	Objective of the course is clear					✓
2	Course contents met with your expectations					✓
3	Lecturer sequence was well planned					✓
4	Lectures were clear and easy to understand				✓	
5	Teaching aids were effective					✓
6	Instructors encourage interaction and were helpful					✓
7	The level of the course				✓	
8	Overall rating of the course	1	2	3	4	5 ✓

* Rating: 5 - Outstanding; 4 - Excellent; 3 - Good; 2 - Satisfactory; 1 - Not-Satisfactory

Suggestions if any:

Date: 15/8/2020


Signature

Student Feedback Form

Course Name: **ASEPSIS AND STERILIZATION IN SURGERY**

Subject Code: **GS01**

Name of Student: NITHYA V Roll No.: U11MB291

We are constantly looking to improve our classes and deliver the best training to you. Your evaluations, comments and suggestions will help us to improve our performance

Sl. NO	Particulars	1	2	3	4	5
1	Objective of the course is clear			✓		
2	Course contents met with your expectations				✓	
3	Lecturer sequence was well planned				✓	
4	Lectures were clear and easy to understand			✓		
5	Teaching aids were effective				✓	
6	Instructors encourage interaction and were helpful			✓		
7	The level of the course			✓		
8	Overall rating of the course	1	2	3	4	5

* Rating: 5 - Outstanding; 4 - Excellent; 3 - Good; 2 - Satisfactory; 1 - Not-Satisfactory

Suggestions if any:

Date: 15/8/2020

V. Nithya
Signature

Date : 18/10/2021

From
Dr K Balagurunathan,
Professor and Head,
General Surgery,
Sri Lakshmi Narayana Institute Of Medical Sciences
Bharath Institute of Higher Education and Research,
Chennai.

Through Proper Channel


To
The Dean,
Sri Lakshmi Narayana Institute Of Medical Sciences
Bharath Institute of Higher Education and Research,
Chennai.

Sub: Completion of value-added course: ASEPSIS AND STERILIZATION IN SURGERY

Dear Sir,

With reference to the subject mentioned above, the department has conducted the value-added course titled: **ASEPSIS AND STERILIZATION IN SURGERY** for 20 students in JULY – OCT 2020. We solicit your kind action to send certificates for the participants, that is attached with this letter. Also, I am attaching the photographs captured during the conduct of the course.

Kind Regards


PROFESSOR & HOD
DEPARTMENT OF GENERAL SURGERY
Sri Lakshmi Narayana Institute of Medical Sciences
PONDICHERRY - 605 002

Dr. BALAGURUNATHAN

HOD General Surgery

Encl: Certificates

Photographs

