

# Basic Surgery

## Objectives:

At the end of the course, the students will be able to

- State the causes, symptoms, signs and complications of common diseases like infection of tissue and wound infection, tumour, acute abdomen, diseases of rectum and anal canal, pelvis and perineum, Eye and E.N.T, teeth, emergency and traumatology, burn, fracture and dislocation.
- Recognise early, provide first aid (1<sup>st</sup> line management) and provide proper referral services to the patients of the common surgical diseases/problems.
- Perform sterilization and prevent infection procedurally; perform wound toilet, introduce, local anaesthetics during wound stitching, perform superficial simple wound suture & stitch removal dressing and wound bandaging; drain superficial abscess.
- Apply arm sling and immobilization the injured part; introduce of nasogastric tube, male & female urethral catheter.
- Give I/V fluids, I/M Injection to the patients as indicated
- Provide CPR (external cardiac massage, artificial respiration by mouth to mouth) to the patients of cardiorespiratory arrest.
- Provide early appropriate referral services to the patients of all surgical diseases/problems.

## List of competencies to Acquire -

- Recognise early common surgical diseases /problems.
- Provide complete care to the patients of simplest surgical diseases/problems.
- Provide first aid (1<sup>st</sup> line management) of all common surgical diseases/problems.
- Refer early the patients of surgical diseases/problems to appropriate place when needed.

## Subject : Basic Surgery

Contents	Learning Objectives	Training /Learning experiences			Expected hours /days	Assessment
		Class-room	Practical /visit	Learning aids		
<b>General Surgery:</b> Infection, Sterilization Wounds, Abscess, Cellulites, Ulcer, Carbuncle, Tetanus, Gangrene, Tumour	At the end of learning session the students will be able to : <ul style="list-style-type: none"> <li>• State the principal of sterilization, perform sterilization and prevent infection procedurally.</li> <li>• Mention the common causes of the listed disease, recognise the listed diseases by the symptoms and signs, mention the complications of the listed disease.</li> <li>• Perform surgical toileting of wound, dress wound, stitch superficial uncomplicated wound, and remove stitch as per procedures.</li> <li>• Perform draining of superficial abscess stepwise, and injecting local anaesthesia as per indications.</li> <li>• Provide the 1<sup>st</sup> line management of infection, tetanus, gangrene.</li> <li>• Recognise and differentiate clinically benign and malignant tumours.</li> <li>• Provide proper referral services to the patients of the diseases.</li> </ul>	Lecture	Case demonstration in Hospitals & Health centres	Black Board / White Board/ Multimedia  Surgical and Sterilization Instruments  Instruments and cleaning agents, antiseptics, medicines and dressing materials used for the procedures  Patients	Lec-10 hrs  Visit/Pr.-10 hrs	Written (SAQ)  Viva & Clinical/ Practical

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Contents	Learning Objectives	Training /Learning experiences			Expected hours /days	Assessment
		Class-room	Practical /visit	Learning aids		
<p><b>Regional Surgery.</b></p> <p><b>Relating to thorax</b></p> <ul style="list-style-type: none"> <li>Breast lump</li> <li>Breast Abscess</li> </ul> <p><b>Relating to abdomen</b></p> <ul style="list-style-type: none"> <li>Acute abdomen</li> </ul> <p><b>Relating to rectum and anal canal</b></p> <ul style="list-style-type: none"> <li>Haemorrhoids</li> <li>Anal fissure</li> <li>Anal Fistula</li> </ul> <p><b>Relating to pelvis and perineum</b></p> <ul style="list-style-type: none"> <li>Acute and chronic retention of urine</li> <li>Haematuria</li> <li>Inguinal and scrotal swelling</li> </ul>	<p>At the end of learning session the students will be able to :</p> <ul style="list-style-type: none"> <li>State the causes, common symptoms, signs and complications of the listed diseases.</li> <li>Recognise early the listed diseases.</li> <li>Provide the 1<sup>st</sup> line management of the diseases.</li> <li>Provide proper referral services to the patients of the diseases.</li> </ul>	Lecture	Case demonstration in Hospitals & Health centres	<p>Black Board / White Board/ Multimedia</p> <p>Instruments for examination and medicines</p> <p>Patients</p>	<p>Lec- 12 hrs</p> <p>Visit/Pr.-16 hrs</p>	<p>Written (SAQ)</p> <p>Viva &amp; Clinical/ Practical</p>

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		Class-room	Practical /visit	Learning aids		
<b>Relating to Eye and E.N.T</b> <ul style="list-style-type: none"> <li>• Conjunctivitis</li> <li>• Sty, Chalazion</li> <li>• Foreign body in Ear</li> <li>• Wax</li> <li>• Epistaxis</li> <li>• Sore throat</li> <li>• Acute tonsillitis</li> </ul>	At the end of learning session the students will be able to : <ul style="list-style-type: none"> <li>• State the causes, common symptoms, signs and complications of the listed diseases.</li> <li>• Recognise early the listed diseases.</li> <li>• Provide the 1<sup>st</sup> line management of the diseases.</li> <li>• Provide proper referral services to the patients of the diseases.</li> </ul>	Lecture	Case demonstration in Hospitals & Health centres	Black Board / White Board/ Multimedia,  Instruments for examination and medicines  Patients	Lec-10 hrs  Visit/Pr.- 10 hrs	Written (SAQ)  Viva & Clinical/ Practical
<b>Relating to teeth</b> <ul style="list-style-type: none"> <li>• Gingivitis</li> <li>• Caries teeth</li> </ul>	At the end of learning session the students will be able to : <ul style="list-style-type: none"> <li>• State the causes, common symptoms, signs and complications of the listed diseases.</li> <li>• Recognise early the listed diseases.</li> <li>• Provide the 1<sup>st</sup> line management of the diseases.</li> <li>• Provide proper referral services to the patients of the diseases.</li> </ul>	Lecture	Case demonstration in Hospitals & Health centres	Black Board / White Board/ Multimedia,  Instruments for examination and medicines  Patients	Lec-8 hrs  Visit- 6 hrs	Written (SAQ)  Viva & Clinical/ Practical
<b>Surgical Emergency and Traumatology</b> <ul style="list-style-type: none"> <li>• Wound</li> <li>• Haemorrhage</li> </ul>	At the end of learning session the students will be able to : <ul style="list-style-type: none"> <li>• State the causes, common symptoms, signs and complications of the listed diseases.</li> <li>• Recognise early the listed diseases.</li> <li>• Provide the 1<sup>st</sup> line management of the diseases.</li> <li>• Provide proper referral services to the patients of the diseases.</li> </ul>	Lecture	Case demonstration in Hospitals' emergency departments & Health centres	Black Board / White Board/ Multimedia  Instruments and cleaning agents, antiseptics and dressing materials, medicines used for the procedures and  Patients	Lec- 12 hrs  Visit-20 hrs	Written (SAQ)  Viva & Clinical/ Practical

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Contents	Learning Objectives	Training /Learning experiences			Expected hours /days	Assessment
		Class-room	Practical /visit	Learning aids		
<p><b>Shock :</b></p> <ul style="list-style-type: none"> <li>Types, causes, severity, complications and 1<sup>st</sup> line management</li> </ul> <p><b>IV fluids:</b></p> <ul style="list-style-type: none"> <li>Types of IV fluids, indication, procedures and complications of IV fluid administrations.</li> </ul>	<p>At the end of learning session the students will be able to :</p> <ul style="list-style-type: none"> <li>State types, causes and complications of shock.</li> <li>Recognise early different types of shock.</li> <li>Estimate the severity of shock with clinical signs and symptoms.</li> <li>State types of I/V fluid with their indication and procedure of I/V fluid administration.</li> <li>Provide 1<sup>st</sup> line management of shock.</li> <li>Provide proper referral services to the patients of shock.</li> </ul>	Lecture	Case demonstration in Hospitals & Health centres	Black Board / White Board/ Multimedia, Instruments, reagents, medicines and IV fluids and Patients	Lec- 10 hrs Visit- 8 hrs	Written (SAQ)  Viva & Clinical/ Practical
<p><b>Burn:</b></p> <ul style="list-style-type: none"> <li>Types, causes , complication, determination of percentage of burn and 1<sup>st</sup> line management</li> </ul>	<p>At the end of learning session the students will be able to</p> <ul style="list-style-type: none"> <li>State types of burn and estimate the percentage of burn, complication and danger of burn.</li> <li>Mention the open and close method of treatment in simple burn.</li> <li>Provide 1<sup>st</sup> line of management of burn.</li> <li>Provide proper referral services to the patients of burn.</li> </ul>	Lecture	Case demonstration in Hospitals & Health centres	Black Board / White Board/ Multimedia Instruments and cleaning agents, antiseptics, medicines and dressing materials used for the procedures and Patients	Lec-8 hrs Visit-8 hrs	Written (SAQ)  Viva & Clinical/ Practical

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		Class-room	Practical /visit	Learning aids		
<b>Fracture and dislocation:</b> <ul style="list-style-type: none"> <li>• Definition, types, sign symptoms and complications</li> </ul>	At the end of learning session the students will be able to <ul style="list-style-type: none"> <li>• Recognise clinically fracture and dislocation</li> <li>• State specific signs, symptoms complications of fracture of clavicle, tibia, humours, radius, ulna, femur</li> <li>• Provide 1<sup>st</sup>-line conservative management of the common fractures with (First aid )               <ul style="list-style-type: none"> <li>- proper positioning</li> <li>- ensuring circulation</li> <li>- wound toileting if necessary</li> <li>- proper immobilization</li> <li>- analgesic if necessary</li> <li>- I/V fluid if necessary</li> <li>- antibiotics if necessary</li> <li>- appropriate transport procedure</li> </ul> </li> <li>• Provide adequate immediate care to prevent complications of fractures and dislocations by ensuring respiration, managing shock, controlling haemorrhage, and saving vital organs and adjacent tissues.</li> <li>• Provide proper referral services to the patients of fracture and dislocation.</li> </ul>	Lecture	Case demonstration in Hospitals & Health centres	Black Board / White Board/ Multimedia,  Instruments and cleaning agents, antiseptics and dressing, immobilization materials and medicines used for the procedures  Patients	Lec-8 hrs Pr -16 hrs	Written (SAQ)  Viva & Clinical / Practical

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Contents	Learning Objectives	Training /Learning experiences			Expected hours /days	Assessment
		Class-room	Practical /visit	Learning aids		
<ul style="list-style-type: none"> <li>- Acute abdomen</li> <li>- Acute appendicitis</li> <li>- Acute Cholecystitis</li> <li>- Acute Cholithiasis</li> <li>- Acute exacerbation of Chronic D.U</li> <li>- Acute hematemesis</li> <li>- Perforation of hollow viscus</li> <li>- Intestinal obstruction of different types</li> </ul>	<p>At the end of learning session the students will be able to</p> <ul style="list-style-type: none"> <li>• State sings, symptoms and complications of mentioned diseases.</li> <li>• Recognise early different condition of acute abdomen clinically</li> <li>• Provide 1<sup>st</sup> line conservative management of mentioned diseases.</li> <li>• Assess improvement of general condition clinically after first-line conservative management.</li> <li>• Provide proper referral services to the patients of the diseases.</li> </ul>	Lecture	Case demonstration in Hospitals & Health centres	Black Board / White Board/ Multimedia  Instruments and medicines for the procedures  Patients	Lec- 12 hrs Pr -26 hrs	Written (SAQ)  Viva & Clinical/ Practical

## Practical Skill

The students must obtain necessary experiences as close observers and assistants on the following procedures at hospital indoor / outdoor / emergency department / health centres. Ultimately they must be competent enough at end of course on the listed procedures:

Items	List of contents of gaining experiences	Assessment
1. Skin and subcutaneous tissues	<ul style="list-style-type: none"> <li>• Wound toilet</li> <li>• Superficial simple wound suture &amp; stitch removal</li> <li>• Dressing and wound bandaging</li> <li>• Drain superficial abscess</li> </ul>	Written (SAQ)  Viva & Clinical/ Practical
2. Musculo-skeletal	<ul style="list-style-type: none"> <li>• Apply arm sling and immobilization the injured part</li> </ul>	
3. Circulatory system	<ul style="list-style-type: none"> <li>• Give I/V fluids</li> <li>• I/M Injection</li> <li>• External cardiac massage</li> </ul>	
4. Respiratory System	<ul style="list-style-type: none"> <li>• Give artificial respiration by mouth to mouth</li> <li>• Oropharyngeal suction</li> </ul>	
5. Digestive system	<ul style="list-style-type: none"> <li>• Introduce nasogastric tube</li> </ul>	
6. Urinary system	<ul style="list-style-type: none"> <li>• Introduce male &amp; female urethral catheter</li> </ul>	
7. Anaesthetics	<ul style="list-style-type: none"> <li>• Introduction of local anaesthetics during wound stitching</li> </ul>	

The students must be able to recognise early and perform 1<sup>st</sup> line management and refer appropriately the following surgical conditions:

- Road traffic accident with unconsciousness
- Road traffic accident with vomiting
- Facial, maxillary and mandibular injuries
- Sever muscle and tendon injuries
- Crush injuries of the thorax injuries
- Penetrating wounds of thorax and abdomen
- Sever injuries involving pelvis and perineum
- Spinal and head injuries
- Acute abdomen
- Fracture and dislocation
- Lacerated and crush injuries
- Gunshot injuries