

## FINAL YEAR MBBS EXAMINATION 2017

(SEND UP) SURGERY PAPER (I)

SEQ, 5

TIME ALLOWED 2Hrs

TOTAL MARKS 50

Q NO 1) Define shock. Classify shock on the basis of severity of shock. How you monitor the patient of shock during first 24 hours?

Q.NO 2) Define major and .minor surgical site infection. Discuss in detail systemic inflammatory response syndrome and multiple organ dysfunction syndrome?

Q NO 3) Discuss in detail the pre-operative workup in elective patients. How you assess airway before operation?

Q NO 4) How you classify trauma according to mechanism of trauma. Discuss in detail assessment and management of seriously injured patient?

Q NO 5) Describe in detail the fluid and nutritional consequences of intestinal resection. Discuss advantages and disadvantages of enteral feeding?

Q NO 6) Classify burn according to depth. Describe the principles of treatment of 15% circumferential burn of upper limb?

Q NO 7) Describe the features of chronic limb ischemia. How you investigate a patient of chronic limb ischemia?

Q NO 8) Define DVT. Discuss its etiology. Enumerate the risk factor for venous thromboembolism?

Q NO 9) Name four inhalational anaesthetic agents. Write the clinical use of inhalational anesthetic agents. How are they delivered to patient?

Q NO 10) Write short notes on

- a) Compartment syndrome
- b) Compound naevus
- c) Informed consent

# Send-up 2017

Q1) Shock:- A shock consists of inadequate tissue perfusion marked by decreased delivery of required metabolic substrates and inadequate removal of cellular waste products.

## Classification of Shock:-

- o - Hypovolaemic / haemorrhagic shock.
- o - Distributive shock
- o - Cardiogenic shock
- o - Obstructive shock
- o - Endocrine shock
- o - On the basis of severity:-

Depending upon the severity, shock can be compensated or decompensated while decompensated shock can be mild, moderate or severe.

1- Compensated shock:- In this type the body cardiovascular and endocrine compensatory responses reduce flow to non-essential organs to preserve pre-load and flow to the lungs, brain, and kidney.

2- Decompensated shock:- Body's compensated mechanism get exhausted and there is progressive renal, respiratory and cardiovascular insufficiency.

- o - Mild shock (tachycardia, reduce urine output)
- o - Moderate shock (urine output drops below  $0.5 \text{ ml/kg/hr}$ )
- o - Severe shock (urine output fall to zero)

### o - Monitoring of patient with shock:-

#### 1- Minimum monitoring:-

- o - Heart rate
- o - Oxygen saturation by probe
- o - Non-invasive blood pressure
- o - Hourly urine output

#### 2- Aggressive monitoring:-

- o - Central venous pressure
- o - Invasive blood pressure
- o - Cardiac Output

#### 3- Monitoring of tissue perfusion:-

- o - pH
- o - Lactate
- o - Base deficit
- o - Mixed venous saturation

### (22) Major Wound Infections:-

- o - Discharge of significant quantity of pus.
- o - Systemic illness e.g tachycardia, pyrexia and leukocytosis.
- o - Delay return to home.

### Minor wound infections:-

It may discharge pus or serous fluid but it is not associated with excessive discomfort systemic signs and delayed return to home.

b) Systemic inflammatory response syndrome:-  
It is defined as 2 or more of the following variables:-

- o - Fever more than  $38^{\circ}\text{C}$  ( $100.4^{\circ}\text{F}$ )
- o - Heart rate more than 90 beats per min.
- o - Respiratory rate more than 20 breaths
- o - Abnormal white blood cell count ( $>10000/\mu\text{l}$ )

Multiple organ dysfunction syndrome:-

It is a state of physiologic derangements in which organ function is not capable of maintaining homeostasis.

Q3:- Pre-operative work-up:-

- o - Taking detailed history
- o - Clinical examination
- o - Routine and target oriented investigation.
- o - If any abnormality is found, it should be treated to its optimal level.
- o - Physical examination
  - o - Airway examination.
  - o - Basic lab investigations.

b) Assessment of airway before surgery:-

It is performed with clinical sitting in front of the patient with the patient's mouth open and tongue protruding without speaking & saying.

Grade 1:- Soft palate, fauces, uvula visible.

Grade 2:- Soft palate with some part of uvula seen.

Grade 3:- Soft palate seen.

Grade 4:- Only hard palate seen.

o - Other parameters:-

\* Long upper incisors o - Uvula is not visible.

\* Neck is short & thick o - Mandibular space is non-compliant

Q4) Classification of trauma according to its mechanism:-

o - Blunt trauma (e.g. car bonnet)

o - Penetrating trauma (e.g. with knife)

o - Blast trauma (e.g. bomb)

o - Crush trauma (Building collapsed)

o - Thermal trauma (Burns)

b) Assessment & management of seriously injured patient: - (3 peaks as follows)

o - Immediate: 50 percent of all death. These are probably not possible to save. They are result of massive head injury or severe cardio-pulmonary insult.

o - Early: - Within the first few hours. These will result from a failure of oxygenation of tissue either because oxygen is not getting into the body or because the circulation has failed and so oxygen is not delivered <sup>to tissues</sup>.

o - Late: - 20 percent of deaths. Usually from multiorgan failure and sepsis, influenced by inadequate early resuscitation & care.

o - ATLS: - The ATLS principles are aimed primarily at the early group of patients.

o - Multi-disciplinary team approach -  
A team

approach is important for achieving the best possible outcome for traumatised patients.

Q5:- Repeated Annual 2017 Q4 S1)

Q6:- Repeated Annual 2017 Q5 S1)

Q7:- Features of chronic limb ischaemia:-

- o- Ischemic rest pain
- o- Tissue loss in the form of ulcers
- o- Gangrene
- o- Low ankle brachial pressure index
- o- Arterial palpation
- o- Temperature
- o- Atrophy

Investigations of chronic limb ischaemia:-

o- General:-

\* Blood test - anemia

o- ECG

\* Lipid profile

\* Platelets & coagulation profile (B) clinical test for severity

o- Doppler ultrasound

o- Duplex scanning - (0.5-0.9) ankle brachial index

o- CT angiography.

o- Buerger angle

o- Pulse examination

Q8: DVT:- The formation of a semi-solid coagulum within the deep venous system is referred to as DVT.

Etiology:- The 3 factors according to ~~Virchow's~~ Virchow's triad are as follows:-

## (b) Compound Naevus:-

A type of mole formed by groups of nevus cells found in the epidermis & dermis. They have a raised central portion of deeper pigmentation with surrounding tan brown macular pigmentation.

## c) Informed consent:-

A patient centered approach by medical staff with involvement of patient and their carers as partners is now recognized as informed consent. It often leads to agreement or permission for care, treatment and services.

### o- Informations:-

- o- Details and uncertainty of the diagnosis.
- o- The purpose and detail of proposed surgery.
- o- Known possible side effects.
- o- The likely prognosis.
- o- Other options for treatment.
- o- Explanation of the likely benefits.
- o- The name of the doctor responsible.
- o- A reminder that the patient can change his mind at any time.



1- Changes in the vessel wall  
(endothelial damage)

2- Stasis, which is diminish blood flow through the veins.

3- Coagulability of blood (Thrombophilia)

o - Risk factors for venous thromboembolism:-

o - Age

o - Puerperium

o - Obesity

o - High dose estrogen

o - Varicose veins

o - Previous DVT

o - Immobility

o - Pulmonary embolism

o - Pregnancy

o - Thrombophilia

o - Malignancy (Pelvic) o - Heart failure.

Q9: Repeat Annual 2017 Q9

Q10: Compartment Syndrome:-

Endothelial cell injury during ischemia leads to increased capillary permeability and when reperfusion occurs this leads to leakage of fluid in the interstitial space (edema) where muscles are confined in the fascial compartments, increase in interstitial tissue pressure can lead to continuous muscle necrosis.