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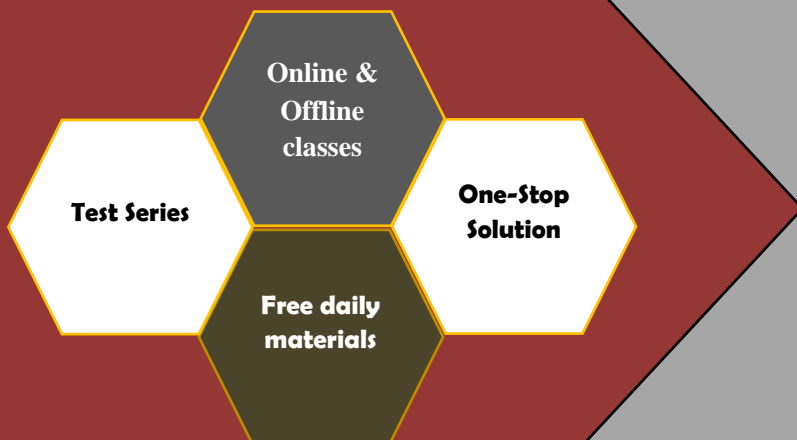
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Liquid Medical Oxygen (LMO)

Notes for civil services preparation



UPSC

General Studies

Liquid Medical Oxygen (LMO) Liquid Medical Oxygen:



- It is high purity oxygen suitable for use in the human body. So, it is used for medical treatments.
- This oxygen provides a basis for virtually all modern anaesthetic techniques, restores tissue oxygen tension by increasing the oxygen availability, aids cardiovascular stability, etc.
 - The World Health Organisation includes this on their List of Essential Medicines.
 - According to the Drug Prices Control Order, 2013, LMO is placed under the National List of Essential Medicines (NLEM).
- Liquid medical oxygen is widely used in clinical practice to provide a basis for most modern anaesthetic techniques including pre and postoperative management. To restore the tissue oxygen tension towards normal by improving oxygen availability in a wide range of conditions such as:
 - cyanosis of recent origin as a result of cardio-pulmonary disease
 - surgical trauma, chest wounds and rib fracture
 - shock, severe haemorrhage and coronary occlusion
 - carbon monoxide poisoning
 - hyperpyrexia
 - major trauma, i.e. road traffic accidents and gunshot wounds
 - in the management of sudden cardiac and respiratory arrest, whether drug induced or traumatic
 - in the resuscitation of the critically ill, when the circulation is impaired

- in neo-natal resuscitation.
- In all cases, the liquid medical oxygen is vaporised to a compressed gas at ambient conditions before being administered to the patient.

Special precautions for storage

Liquid medical oxygen cylinders should be:

- stored upright under cover, preferably inside in a well ventilated area, kept dry and clean and not
- subjected to extremes of heat and away from stocks of combustible material
- stored separately from industrial and other non-medical cylinders
- stored to maintain separation between full and empty cylinders
- used in strict rotation so that cylinders with the earliest filling date are used first
- stored separately from other medical cylinders within the store.
- Liquid medical oxygen bulk storage tanks should be sited at least 3 metres from boilers and other sources of naked lights, fuel stores, paint stores and other volatile flammable materials.
- Warning notices prohibiting smoking and naked lights must be posted clearly in the cylinder storage area and the emergency services should be advised of the location of the cylinder stores and bulk stores.
- Care is needed when handling and using liquid medical oxygen cylinders.