O2 Therapy Ques.

1) What is the meaning of O2 therapy
2) What is the characteristics of O2
3) Compositions of inhaled air
4) What is the purpose of O2 therapy
5) Who need O2 therapy / O2 therapy used to treat what
6) When O2 is a drug we should look for what
7) What are the sources of O_2
8) Cautions of O2 therapy
9) Mention the methods of O2 administration
10) What is the FiO2 per liter from (1-6)
11) what advantages and dis advantages for each type of O2 delivery system

O_2 Therapy Ans.

1) administration of oxygen at a concentration of pressure greater than that found in the environmental atmosphere .
2) Oxygen is a colorless, odorless, tasteless gas that is essential for the body to function properly and to survive.
3) 21%oxygen, 78%nitrogen and 1% other gases
4) The purpose is to increase oxygen saturation in tissues where the saturation levels are too low due to illness or injury.
5) hypoxemia
   - Severe respiratory distress (acute asthma or pneumonia)
   - Severe trauma
   - Chronic obstructive pulmonary disease COPD (including chronic bronchitis, emphysema, and chronic asthma)
   - Pulmonary hypertension
   - Acute myocardial infarction (heart attack)
6) Must be written legibly by the doctor, except in emergency use.
   - Prescription should be dated by the doctor .
   - duration of O_2 therapy .
   - The O_2 Concentration.
   - The Flow Rate.
7) Sources of oxygen: 1. Oxygen cylinder. 2. Oxygen wall outlets.

8) Oxygen toxicity – can occur with FIO2 > 50% longer than 48 hrs
Danger of fire
Infection

9) A. Nasal cannula
B. Face mask:
1. The simple Oxygen mask
2. The partial rebreather mask
3. The non- rebreather mask
4. The venturi mask

10) Amount Delivered Fio2 (Fraction Inspired Oxygen)
Low flow- 24-44 %
1 L\min=24%
2 L\min=28%
3 L\min=32%
4 L\min=36%
5 L\min=40%
6 L\min=44%

11) 1—nasal cannula

Advantages	Disadvantages
Client able to talk and eat with oxygen in place	Unable to use with nasal obstruction
Easily used in home setting	Drying to mucous membranes, so flow greater than 4 L/min needs to be humidified
Safe and simple	Can dislodge from nares easily
Easily tolerated	Causes skin irritation or breakdown over ears or at nares
Delivers low concentrations	Patient's breathing pattern affects exact FIO2

2—simple oxygen mask

Advantages	Disadvantages
Can provide increased delivery of oxygen for short period of time	Tight seal required to deliver higher concentration
	Difficult to keep mask in position over nose and mouth
	Potential for skin breakdown (pressure, moisture)
	Uncomfortable for patient while eating or talking
	Expensive with nasal tube

3-- partial rebreather mask

Advantages	Disadvantages
Client can inhale room air through openings in mask if oxygen supply is briefly interrupted	Requires tight seal (eating and talking difficult, uncomfortable

4-- The non-rebreather mask

Advantages	Disadvantages
Delivers the highest possible oxygen concentration	Impractical for long term Therapy
Suitable for patient breathing spontaneous with sever hypoxemia	Malfunction can cause CO2 buildup
	suffocation
	Expensive
	Uncomfortable

5-- Venturi Mask

Advantages	Disadvantages
Delivers most precise oxygen Concentration	uncomfortable
Doesn't dry mucous membranes	Risk for skin irritation
	Produce respiratory depression in COPD patient with high oxygen concentration 50%

CPR Ques.

1) CPR is an abbreviation of
2) CPR is done for
3) The most common cause of cardiac arrest in adult
4) The most common cause of cardiac arrest in pediatrics
5) The definition of CPR
6) Why do we do CPR (indications)
7) How we start CPR
8) The pule measured on
   a) >2years On ----------
   b) <2years On ----------
9) The brain damage occurs after------- min. of cardiac arrest
10) Irreversible brain death occurs after --------min. Of cardiac arrest
11) What is the rate of CPR per minute
12) Compress the chest at least ------- inches with each down stroke
13) Before CPR , if we do the main instructions , tilts the patient's head and the patient still does not take a breath after ---- sec. Start CPR
14) What is the survival rate for CPR per minute
   a. 1st min ------
   b. 4th min------
   c. 8th min------
15) What is the correct procedure for CPR in an emergency situation
   a) In shockable state / Which include 1)---------- 2) ----------
   b) In Non-Shockable state / Which include 1)--------- 2)----------

CPR ans.

1) Cardiopulmonary resuscitation
2) CPR can keep oxygen-rich blood flowing to the brain and other organs , until emergency medical treatment can restore a typical heart rhythm.
   When the heart stops, the body no longer gets oxygen-rich blood.
   The lack of oxygen-rich blood can cause brain damage in only a few minutes.
3) Cardiac attacks
4) Suffocation / asphyxia
5) Cardiopulmonary resuscitation (CPR) is a lifesaving technique that's useful in many emergencies, such as a heart attack or near drowning, in which someone's breathing or heartbeat has stopped.
6) heart attack or near drowning / someone's breathing or heartbeat has stopped.
7) • Assess the area quickly to make sure it is safe to approach the person.

• Confirm unresponsiveness by tapping the person on the shoulder and shouting something such as “are you OK?”

• If no response, call for help, and initiate chest compressions.

• Do not delay chest compressions if a pulse cannot be felt within 10 seconds

8) a) on carotid b) on brachial
9) 4 min.
10) 7 min.
11) 100 compressions per minute.
12) 2 inches
13) 10 sec.
14) a. 90-95% b. 50% c. <1%
15)

Before CPR:

- Make sure the environment is safe, a fire, traffic accident, or other danger could put your own life at risk.
- Try to wake the person, tap on the person's shoulder firmly and ask "Are you OK?" in a loud voice.
- Move on to the next steps after five seconds of trying to wake the patient.

- Call 911, anytime a patient won't wake up, call 911 immediately or ask a bystander to call.
- Even if you will perform CPR on the spot ,it's important to get paramedics to the scene as quickly as possible.
- Put the person on their back, If it's possible that the person may have had a spinal injury, turn them carefully without moving the head or neck.
- Check for breathing, Tilt the patient's head back to open the airway and determine if they are breathing, If the patient doesn't take a breath after 10 seconds, start CPR.

START CPR >>

- ✓ Follow the mantra: "Push hard and push fast on the center of the chest".
- ✓ Compress the chest at least 2 inches with each down stroke.
- ✓ Compress at a rate of 100 compressions per minute .
- ✓ Minimize the frequency and duration of interruptions while performing chest compressions. Chest compressions with ventilations can be provided by those trained in the technique and will be done by professional rescuers.

In Adults:

•Place your hands on the person's chest. Place your other hand on top of that hand. Center your weight directly over your hands.

•Perform chest compressions. Push hard, to a depth of at least 2 inches (but no deeper than 2.4 inches)

and fast ----about twice per second until the person responds.

•Give rescue breaths, push on the chest 30 times, then give two rescue breaths.

•Repeat , Repeat cycles of 30 chest compressions and two breaths until help arrives or the patient wakes up .

IN EMERGENCY DEPARTMENT :

- **Start CPR**
  30 compressions : 2 breaths
  Minimise Interruptions
- Attach the patient to the monitor

During CPR
Airway adjuncts (LMA / ETT)
Oxygen
Waveform capnography
IV / IO access
Plan actions before interrupting compressions
(e.g. charge manual defibrillator)

نشبك المريض على الجهاز وال Defibrillator و ETT و بكون في IV access وبعدها بحدد اذا shockable او NON عن طريق ASSESS RHYTHEM

لكن كخلاصة اي شخص بالدنيا لما نعمله CPR سواء shockable or NON بنعمل CPR وكل CPR takes 2 min وكل 3-5min takes adrenaline

1) In Shockable state – Which include :
   A) pulseless ventricular tachycardia
   B) Ventricular fibrillation

شو يعني Shockable ؟
يعني abnormality on the heart تتقبل العلاج بال DC Shock
مكتوب نعمل CPR 3 قبل كل CPRعنا DC shock and before 3rd DC we give amiodarone

2) In Non-Shockable state – Which include :
   A) Asystole
   B) Pulseless electrical activity (PEA)

بكون الECG خط ما بنفع معهم DC shock ولا amiodarone
بنعمل بس CPR وكل 3-5min adrenaline

✓ مذكور انه بنعمل ال CPR 3 مرات لكن بالحقيقة بنعمله اكثر من هيك

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Study Hard