

Question 1

What is the difference b/w Prevention, elimination, Control and Eradication? with example.

Answer a:

Prevention

"The act through which we reduce or eliminate the disease which includes onset, cause and recurrence of a disease"

OR

Those actions through which we stop anything which is harmful

↳ Two things are required for Prevention:

1) Identify the risk factors & Protective measures.

2) After identification certain strategies should be planned to minimize the risk factors & maximize protective factors.

Example of prevention:

We can prevent mental illness through awareness & by education

4 level of

"4 level of Prevention"

1) Primordial Prevention:

Prevention at "macrolevel"

When emergency prevention of predisposal social and environmental risk factors, are taken in a population, where the disease is not yet appeared.

e.g: Precautionary measures which were taken by different countries of the world, when COVID-19 was only in China:

• It focuses on chronic disease.

2) Primary Prevention:

Steps taken to stop the onset or to limit the incidence of a disease.

e.g Vaccination.

3) Secondary Prevention:

The act to prevent the progress of disease.

4) Tertiary Prevention:

To minimize the impact of disease diagnosed.

e.g Chemotherapy → Cancer patient.

b) Control:

"The act of minimizing the incidence, morbidity, mortality and prevalence of a disease to an acceptable level."

- a continuous intervention is important for the reduction of disease.

e.g

- 1) Her condition seems to be controlled by medication.
- 2) we can control the spread of Corona Virus by social distancing.

C: "Elimination"

• "The process of getting rid of something"
OR

• "when we eliminate a disease/incidence of a disease upto 0%."

• it is obtained through continuous efforts.

e.g 1) ~~Small pox~~ is ~~eliminated~~ ~~permanently~~.

2) Key to success is elimination of illiteracy"

D: Eradication:

"Permanent reduction to zero"

The process of ending up something from its root.

e.g

Ch

Small - pox has been eradicated world widely.

Question 2:

What is health ethics? Write down types and Principles of Ethics:

Answer:

Ethics:

"The principal of wrong & right decision"

It is the system of Moral principal.

- They affect how people decisions and lead their lives.

"Ethics → Branch of Philosophy →

"Anicology"

- Ethics & morality are interchangeable bcz usually they have the same meaning but Philosophy have explained certain changes.

↳ Ethics: (formal)

"it is a series of rules provided to an individual through external source."

↳ Morality / Morals: (informal)

"Own principle / One's own thinking about right and wrong."

b "Types of Ethics"

1) Medical Ethics:

the system of moral principle that apply to practice medicine.

"rules & regulations primarily concerned with Physicians."

e.g

MBBS, BDS, prevention & treatment.

2) Health Care Ethics:

It deals with the issues of other health care providers such as Nurses, paramedics, psychologists, technicians etc.

3) Bio-ethics:

"life"



"Principle of right & wrong"

"Ethical issues & decision making concerned with the life of living organisms"

e.g. Cloning, Abortion, fetal tissue research.

4) Clinical medical ethics:

It's aim is improve "patient care and patient outcomes" by taking "right & good decision."

- e.g.
- Protecting Patients Confidentiality
 - Negotiating informed consent for clinical decisions.

c) "Ethical Principles"

"It provides a frame which may helps in resolving the conflict in fair, just and moral manner."

1) Autonomy:

- Autonomy means to respect one's right to make their decision.
- Help them out in their decision making.
- Support people in their choices.
- We must not reinforce them to do

do something.

Informed Consent is an important part of this principle.

2) Beneficence (to do good)

The aim of our action should be to "benefit people" to improve quality of life, to bring comfort to enhance one's potential.

- definition of benefit should be according to themselves
- Prevent harm, Protect vulnerable people's right.

3) Non-maleficence (Do not harm)

- Our acts should not harm people, avoid pain and sufferings.
- Do not cause offense.
- People's life should be secure.

e.g.

New intervention shouldn't be used directly on humans bcz it may harm them.

4) Justice:

we must avoid discrimination, we should be fair and just with everyone.

- We must provide equal resources to everyone & no group should be given importance than other.

e.g. family member and outsider Pt's should be given equal time and attention.

5) Nuremberg Code:

It was developed after the war 2., where prisoners were threatened to perform experiments forcefully.

• This Principle includes:

- 1) A Voluntary consent of human subject.
- 2) Animals should be used as a trial of new intervention.
- 3) The aim of experiment should be to seek profit.
- 4) Avoidance of mental & physical sufferings.
- 5) Experiment should be conducted by qualified professionals not assistants.
- 6) Estimate the degree of risk.
- 7) Autonomy should be given to subject.

to terminate the experiment.

9) Pt should be secure from any kind of injury disability or death.

10) incharge must be thoir to terminate experiment at any stage if its harmful.

Question 3:

What is genetic abnormalities? Stages of G-Abnormalities.

Answer:

"Genetics"

The study of the process through which genetic material is transferred from one generation to another.

"Genetic Abnormality"

Any mutation or change in genetic factor can lead to genetic abnormality.

There are found about 20-25K different gene in the body, single mutated gene in Parent can cause diseases in offspring.

" 2 Main types "

- 1) Chromosomal defect
- 2) Single gene defect.

1) Chromosomal Abnormalities:

A) Aneuploidy:

Abnormal number of chromosome (either increased/decreased)

example:

a) Down Syndrome (trisomy 21)

3 copies of chromosome 21 is formed instead of pair.

Tri \rightarrow 3 , Soma \rightarrow body.

b) Turner Syndrome

- women / girls are affected
- when sex-chromosome (X) is missing.
- instead of 46 \rightarrow 45 chromosomes.
- Short necks

B) Deleting:

when a part of chromosome is deleted.

C) Inversion:

when a chromosome breaks, its pieces reattach itself but is not properly organised.

D) Translocation:

An abnormality which occurs after the chromosomal segments rearrange itself and binds back but into misfit place either in same or different chromosomal loci.

E) Ring:

A type of chromosomal defect in which the end of chromosome attach in such a way that it forms a ring shape.

F) Mosaicism:

when there is an extra chromosome which differs from original one.

2) Single gene defect

1) Dominant:

when single parent have the defected gene.
• when a single gene is defected in parent so there is 50% chance of offspring to be effected.
e.g tallness.

2) Recessive:

when both parent cells are carrier so child have 25% chance of being effected.

example sickle cell anemia

3) X-linked

when X-chromosome is defected.

example:

hemophilia

we can prevent it by:

1) +ive Eugenics:

The aim to improve desirable trait.

2) -ive Eugenics:

discouraging undesirable trait.

Question 4:

1. What is diabetes? different types.
- 2) diff b/w D. Mellitus & insipidus
- 3) Prevention.

Answer: Diabetes:

A chronic disorder in which blood glucose level is too high which is caused by dysfunction of pancreas.

↳ Either insulin is not produced.

↳ Body does not respond to available insulin.

• Diabetic

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Diabetic patient \rightarrow blood glucose in fasting \rightarrow
 $\uparrow 126$ mg / dl.

" Types "

1) Diabetes type 1 :

- (insuline dependant / childhood onset.)
- Cause \rightarrow Unknown.

A type of diabetes mellitus in which there is insufficiency in the production of insuline for normal body function.

Symptoms:

- Constant hunger
- Thirst, excess urination
- weight loss, fatigue.

2) Diabetes type 2 :

(insuline independant / Adult onset.)

90% of people are affected world widely.

Cause \rightarrow Obesity & inactive lifestyle, \uparrow B.P.

"In this type body donot responds to available insuline"

Prevalance \rightarrow 10-15%.

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- Stvo

- Strongly inherited.

Symptoms:

Same as type 1.

b)

"Diabetes Mellitus"	"Diabetes insipidus"
Cause	
1) deficiency of Pancreatic hormone → insuline	deficiency of pituitary hormone → ADH / vasopressin
2) failure of blood glucose	failure of renal function.
3) Glucose containing Urine	No - glucose is found.

3) "Prevention of diabetes mellitus"

1) Primary Prevention:

- Mainly focus on
- weightless, physical activity, quit smoking.
 - Avoid junk
 - 30min regular exercise.
 - Prohibit alcoholic drinks & smoking
 - healthy diet.

2) Secondary Prevention:

early diagnosis → early treatment → ↓ complications

Government should play vital role in improving health of citizens by.

- Providing natural greenery parks for jogging
- Banning cigarette and alcohol.
- Promoting sports etc.

Question 5:

- A) what is mental disorder? Its diff types.
 B) Why we need Health information system.

Answer:

"Mental health"

A state of well being and the ability to cope normal stresses of life.

"Mental disorder"

A Psychiatric disorder in which "mental & behavioral patterns are disturb" which causes disability (social + developmental).

Types

1) Anxiety disorder:

a condition which patients have "Panic attacks" and responds abnormally to certain stimuli.

→ Fear, nervousness, Sweating, ↑ Heart beat are the signs

2) Eating disorder:

People with this disorder are over conscious over body shape and towards their weight.

example:

- anorexia nervosa
- Bulimia

3) "Mood disorder"

Characterized by → "Mood Swings"
These pts are extremest either extremely sad or happy.

4) Psychotic disorder:

distorted thinking.

it includes:

↳ Hallucination:

Perception of things without existing stimuli
e.g. Hearing unusual voices, which no one else can.

5) Impulse control and addiction disorder.

Certain acts which subject performs to satisfy them selfs.

example:

a) Pyromania:

Uncontrollable Urge to set fire.

b) Kleptomania:

Obsession of stealing

addiction disorder: → due to addictive agents.

6) Personality disorder:

due to their inflexible characteristics they create problem in work and social life.

8) Adjustment disorder:

These people are unable to cope normal stresses and are unable to adjust with certain circumstances.

• feeling of hopelessness, left-over, extremely sad when face hard / stressful time.

8) Dissociative disorder:

lack of continuity b/w thoughts, memories and action are found.

• Away from reality of life.

B) Health information system:

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The main aim of health information system is to improve the health of patients, which contains information regard to Pt health.

e.g. In software or computer Pt's information is recorded and is stored so that when the patient visit again so that time may be secure, includingly to see the progress.

Needs of information system:

- 1) Through information system we get the record of Pt history so it makes it easy to treat & compare the progress.
- 2) we need HIS to have access of medications bcz some times pts may lost the prescription page so it help us to treat them.
- 3) when new cases of certain disease is recorded so it may help researchers to helpout them.
- 4) it gives information about the location of pt so we may not ask them to have quick follow up.

- 5) we need HIS to give priority to which disease treatment.
- 6) we need HIS to inform people regarding to specific disease.
- 7) HIS is necessary to find out the trending disorder.
- 8) HIS is essential to secure peoples life such as people who have been recovered from COVID-19 (passive immunization)
- 9) HIS is to ensure
- 10) HIS is necessary for finding out the ratio of new incidence e.g. cancer
- 11) HIS is helpful in detection of patients recovery rate so that further progress.
- 12) HIS is needed/required to know which area & who are affected by disease and why.
- 13) HIS allow the Health care provider to find out about decline & progress of disease.

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M T W T F S

14) HIS provide information about acceptability of intervention, coverage, accessibility and number of participants.
