Disease prevention & control 1

Disease control: reducing the transmission of disease agent, It aims at reducing Incidence of the disease and Duration of the disease.

Disease elimination: complete interruption of transmission / causative organism may be persisting in environment

Disease eradication: complete 'extermination' of organism. / complete interruption of disease transmission / no new case occurs in the future /ONLY 1 disease till date: Small pox

Natural History Of Disease: It signifies the way in which a disease evolves over time from the earliest stage of its prepathogenesis phase to its termination as recovery, disability or death, in the absence of treatment or prevention./ unique to each disease.

Pre pathogenesis phase : period preliminary تمهيدي to
the onset of disease in man/ agent has not yet entered man
/ in this phase "man in the midst of disease" or "man
exposed to the risk of disease" / Potentially we are all in the
pre pathogenesis phase of many diseases

Pathogenesis Phase of Disease: an interaction of three factors[agent , host , environmental] to initiate the disease process in man.

Pathogenesis Phase of Disease 2: 'Entry of organism' in susceptible host / Multiplication of organism, disease initiation and progression / Host may become a clinical case, subclinical case or carrier/ Final outcome may be recovery, Disability or Death

"Intervention": any attempt to intervene or interrupt the usual sequence in the development of disease in man. There is Five modes of intervention:

1. Health promotion.

- 2. Specific protection
- 3. Early diagnosis and treatment 4. Disability limitation

5. Rehabilitation

PREVENTION of disease: The objective of preventive medicine is to intercept or oppose the "cause" and thereby the disease process. [prevent interaction between factors] 4 levels of prevention, these levels of prevention are in relation to the natural history of disease

Primordial prevention: Prevention of the emergence or development of risk factors in countries or population groups in which they have not yet appeared. / main intervention in primordial prevention is through individual and mass education.



Primary prevention: "action taken prior to the onset of disease, which removes the possibility that a disease will ever occur".

/ it is the intervention in the pre-pathogenesis phase so Done in HEALTHY PEOPLE!

/ primary Prevention is done by 2 ways :

promote general health. # specific protective measures

Health promotion: includes interventions like;

- i. Health Education
- **Ii. Environmental Modifications** (safe water; installation of sanitary latrines; control of insects and rodents; improvement of housing,)
- III. Nutritional Interventions (Food fortification, child feeding programmes;)
- Iv. Lifestyle and Behavioural Changes
- # Specific protection: interventions aimed at specific protection are like;
- (a) immunization. (b) use of specific nutrients
- (c) Chemoprophylaxis. (d) protection against occupational hazards
- (e) protection against accidents.حزام الأمان
- (f) protection from carcinogens
- (g) avoidance of allergens
- (h) control of specific hazards in the general environment, <e.g., air pollution, noise control >
- (i) quality and safety of foods,



Secondary Prevention: "action which halts(stops) the progress of a disease at its incipient الابتدائية stage(early stage) and prevents complications". attempts to reversible pathological changes

So it is done in <u>Pathogenesis phase</u> of the disease ,diseased patients)

2ry prevention includes specific interventions like;

- # Early diagnosis ({e.g. screening tests, case finding programmes)
- # Adequate treatment before irreversible pathological changes have taken place

Early diagnosis and treatment:

early detection as "the detection of disturbances of mechanism while biochemical, morphological, and functional changes are still reversible." that precede the occurrence of manifest signs and symptoms

The drawback of secondary prevention: Secondary prevention is an imperfect tool in the control of transmission of disease.

- It is often more expensive
- less effective than primary prevention. .



Tertiary prevention:

- PKey words of 3ry prevention P 🗀 :
- 🗆 **late** pathogenesis phase. 🧐
- □ late stage of the disease
- prevent disability and death 🧐

So Tertiary prevention is: ○ "all measures available to reduce or limit or prevent impairments and disabilities, minimize suffering caused by this health problem ○ prevent or halt the transition of the disease process from impairment to handicap

♦ Disability limitation

Rehabilitation: all measures aimed at reducing the impact of disabling and handicapping conditions and at enabling the disabled and handicapped to achieve social integration. It aims to training and retraining the individual to the highest possible level of functional ability", including:

Medical, Vocational, Social, Psychological rehabilitation

Examples of rehabilitations:

- Special schools for blind pupils.
- Provision of <u>aids</u> for crippled.
- Reconstruction <u>surgery</u> for <u>leprotics</u>.
- Modification of life of cardiac patients



Disease impairment disability handicap

Impairment Disability Handicap loss or abnormality of psychological, Because of an impairment, the affected resulting from an impairment or a physiological or disability, person may be anatomical structure or function unable to carry out certain activities that limits or prevents the fulfilment of a role that is normal (depending on age, sex, considered normal for his age, sex, and social and cultural factors) for that loss of foot, defective vision or individual" mental retardation.







Done by: Nizar maaitah

