



**RAJASTHAN**

**PHARMACIST**

**Rajasthan Subordinate & Ministerial Services Selection Board**

**Part – B**  
**Volume – 1**

**Health Education and Community Pharmacy**



# RAJASTHAN PHARMACIST

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**Health Education and Community Pharmacy**

# Community

Group of population living in a fixed geographical area

## Community Health Nsg (CHN)

providing Comprehensive (preventive, promotive, curative and rehabilitative care) care to the peoples of Community in their own environment is called CHN

## Terminology

(1) Infection ⇒ Entry and multiplication of micro-organism into the body is called infection

(2) Contamination ⇒ Any micro-organism attached to the surface of human being, animals or any article is called contamination

(3) Infestation ⇒ Any arthropod attach to the body surface of Human beings or animals and other articles is called infestation.

(4) Disease ⇒ Any condition which causes alteration in the normal functioning of the individual is called disease.

(5) Communicable disease  $\Rightarrow$  Any disease which can be transfer from one individual to another individual is called communicable disease.

(6) Non-Communicable disease  $\Rightarrow$  Any disease which can not transfer from one individual to another individual is called non-communicable disease.

(7) Iatrogenic disease  $\Rightarrow$  Any disease condition which is produced during providing medical care facilities is called Iatrogenic disease.

eg  $\rightarrow$

Urinary tract infection (UTI)

$\downarrow$   
Due to unsterile technique used during catheterization

(8) Incidence  $\Rightarrow$  All the new cases and old cases are of any disease is called incidence.

(9) prevalence  $\Rightarrow$  All the new cases and old cases are combined called prevalence.



(10) Primary Case ⇒ Any individual affected from an infectious disease 1<sup>st</sup> in the target population is called primary case

(11) Index Case ⇒ The 1<sup>st</sup> clinically diagnosed pt. of any infectious disease in the target population is called index case

(12) Secondary Case ⇒ All the affected the individuals from any infectious disease and in these patients disease is transmitted by primary or index case

(13) Endemic Disease ⇒ Any communicable disease which is normally always present in any community is called endemic disease.

En + Demos  
 ↓ ↓  
 In people

Eg → Malaria in India.

(14) Epidemic Disease ⇒ (महामारी के कारण) Sudden outbreak of any infectious disease in the community is called epidemic disease.

Epi + Demos  
 ↓ ↓  
 upon people

In this condition the disease affected pt. are found more than normal occurrences

Eg → Dengu, Swine flu

(15) Pandemic disease ⇒

↓                  ↓  
Pan              Demos  
↓                  ↓  
All                people

Any infectious disease which is found over a large geographical area or all over the world is called pandemic disease

Eg ⇒ HIV

(16) Sporadic Disease ⇒

~~द्वारा~~ In this diseases we found the scattered out cases. it indicates the pts of an infectious disease is found after different intervals of times

Eg - Polio

(17) Zoonoses ⇒

Any disease of animal population which is transfer to the Human beings is called Zoonoses.

Eg → Rabies, plag

(18) Enzootic

Any endemic disease in animal population is called Enzootic disease.

Eg  
↓ Anthrax.



(19) Epizootic

Sudden outbreak of any disease in animal population is called epizootic.

Eg → plag.

(20) Epidemic ⇒

Sudden outbreak of an infectious disease in ~~bird~~ <sup>bird</sup> population is called epidemic (disease).

(21) Susceptible Host ⇒

Any individual which provides a better environment for the occurrence of any disease is called susceptible host.

(22) Source of infection

Any individual or articles which provides the infectious material is called source of infection.

(23) Reservoir ⇒

Any individual in which the micro-organism normally ~~lives~~ lives and survives is called reservoir.

(24) Carrier ⇒

Any thing which transfers the disease from the infected individual to normal individual.

is called carrier.

(25) Isolation  $\Rightarrow$  Separating the infected pt. from the normal individuals until the period of communicability is called isolation.

(26) Quarantine  $\Rightarrow$  Separating the accidentally exposed individual to any infectious disease until the maximum incubation period of that disease. is called quarantine.

(27) Incubation period  $\Rightarrow$  It is time interval from the entry of micro-organism into the body to appearance of 1<sup>st</sup> clinical symptom.

(28) Opportunistic ~~perio~~ infection  $\Rightarrow$

Any infection which occurs when the immunity of an individual is weak is called opportunistic infection.

(29) Vector  $\Rightarrow$

Arthropods which can transfer the disease from one individual to another one is called vector.



(30) fomites ⇒

All the non-living objects other than food and water which can transfer the disease from one individual to another one is called fomites.

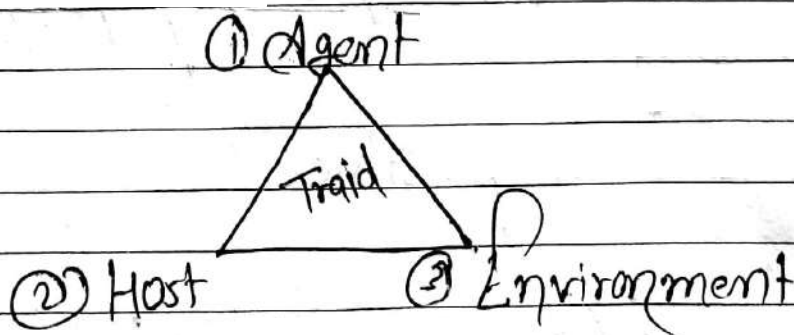
## \* EPIDEMIOLOGY \*

Def ⇒

Epidemiology is the study of disease occurrence, factors affecting disease transmission & pattern of disease.

### Epidemiological Triad

3 things are responsible for disease occurrence in any population



# DISEASE-CYCLE

6 stages occurs in a normal disease

## ① Incubation period

It is the time-interval from the entry of micro-organism into the body to appearance of 1<sup>st</sup> clinical symptom

## ② Prodromal stage

In this stage minor symptoms begins to appear

Clinical diagnosis is not possible during this stage

## ③ Fastigium ⇒

The severity of symptom appears in this stage

Clinical diagnosis is possible

## ④ Defervescence ⇒

In this stage body defence against the disease appears.

Severity of symptoms is slightly less.



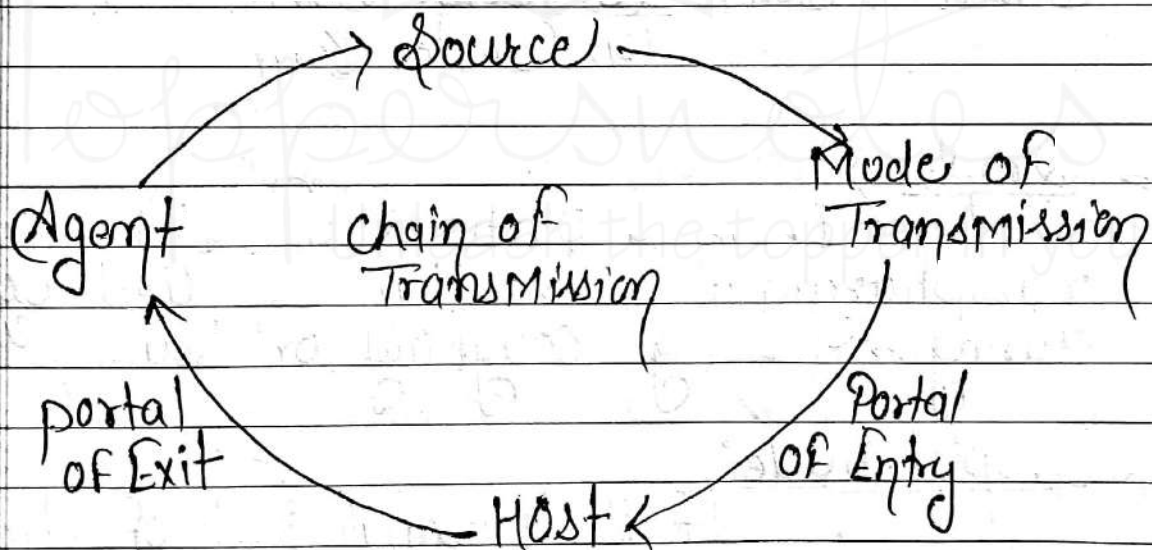
⑤ Convalescence stage ⇒

In this stage symptoms are less and pt. progresses towards recovery.

⑥ Decline stage ⇒

In this stage the symptoms becomes disappear and the pt. is recovered from the disease.

\* Chain of Transmission



\* Mode of transmission

It is the medium of transmission of any infectious disease.

\* portal of Entry ⇒

(where) microorganism enters the body of a susceptible Host is called portal of Entry

\* portal of Exit ⇒ When the micro-organism comes-out from the body of infectious pt. that point is called portal of Exit

## Modes of Transmission

It can be direct or Indirect

Direct

Indirect

- (1) Contact  
 (2) Droplet → coughing, sneezing  
 (3) Transplacental  
 (4) Contact with soil

- (1) Air Born → Infected dust  
 Droplet nuclei < 10 Micron  
 (2) vehicle Born → Food Born, water born and blood Born  
 (3) vector Born  
 (4) fomites Born

\* Droplet ⇒

It is a particles of saliva and nasopharyngeal secretion expelled by a pt. during sneezing, coughing or loudly talking.

\* Droplet Nuclei

It is a small part of droplet which can move in the air and can be inhaled by any individual.

Size ⇒ Less than 10 Micron

Note \* HIV is vertical transmission (Direct)  
 (Transplacental)



Prostate specific antigen test  
↓  
(for prostate cancer)

## \* LEVELS OF PREVENTION ⇒ 4 levels

Note [ Impairment ⇒ Amputation  
Disability ⇒ Unable to walk  
Handicapped ⇒ socially acceptable role & disturb.

### (1) primordial prevention

In this prevention we reduce the risk factors of occurrence of any disease

This level of prevention most commonly used is early age groups.

Intervention → Health Education

### (2) Primary Prevention

In this level we prevent the occurrence of any disease in the individual

Intervention → (A) Health Promotion

- ↓
- (1) Health Education
  - (2) Environmental Modification

(B) Specific protection

↓

Immunization + supplementation of necessary nutrients.

### ② Secondary Prevention ⇒

In this prevention we want to stop the disease in its early stages

Interventions ⇒ (1) Early Dx  
(2) Early Rx

### ③ Tertiary Prevention ⇒

In this prevention we improve the general condition of the pt. when the disease is progressed into the complicated condition

Intervention → (1) Disability Limitation  
(2) Rehabilitation

## \* IMMUNITY \*

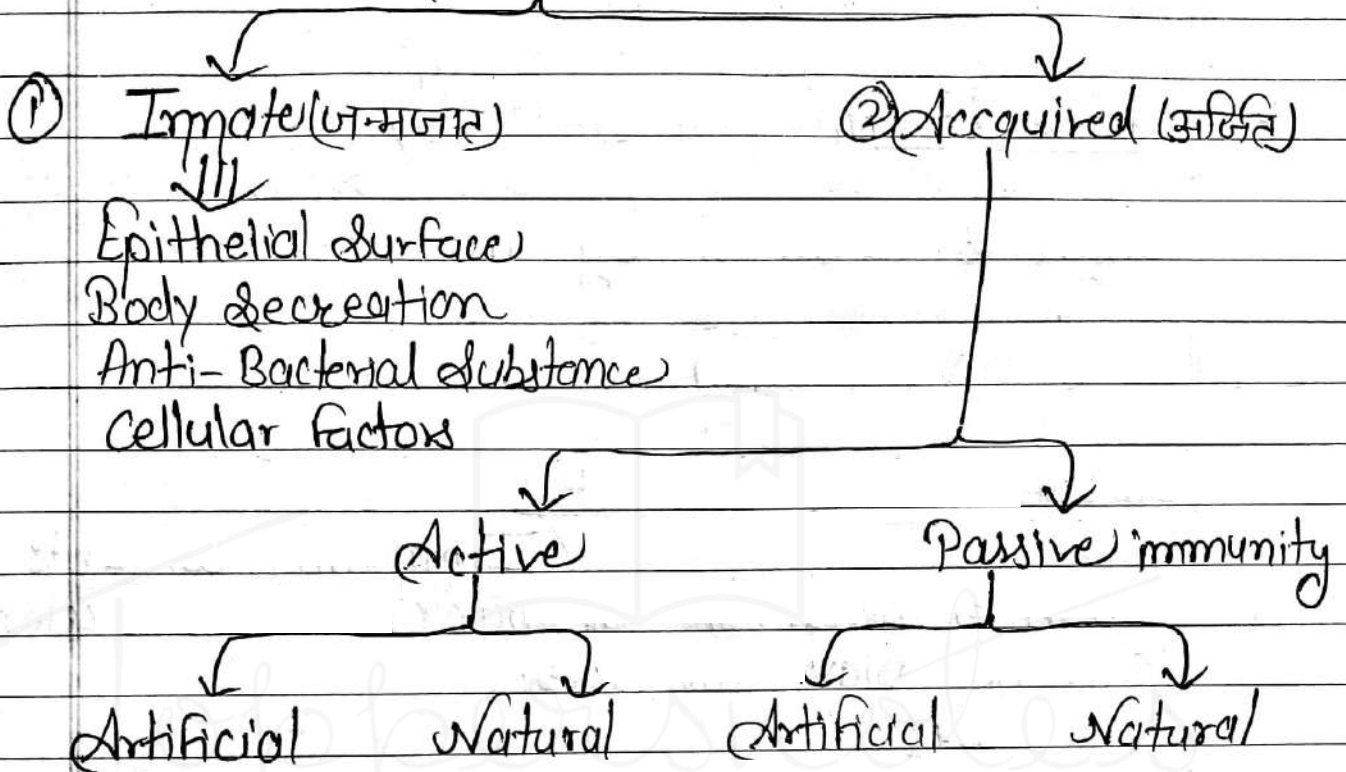
It is the resistant shown by our body against any foreign particle is called immunity

Antigen → Anything which can stimulate our immune system to produce antibody is called antigen

Antibody → substance produced by our immune system in response to any antigen is called antibody



## Types of Immunity



### Innate Immunity

Immunity which any individual ~~holds~~ has due to his genetic structure.

### Acquired Immunity ⇒

The immunity which an individual gains during his life. is called acquired immunity.

### Active-natural Immunity

The immunity which is naturally produce and our immune system play active role.

Eg → any clinical and sub-clinical infection

### 2) Active - Artificial Immunity

Active immunity which is produced by immune efforts

Eg  
↓  
vaccination

### Passive natural immunity

Immunity which is produced naturally but our immune system does not play any role.

Eg  
↓  
Transplacenta  
Breast feeding

### Passive Artificial Immunity

Passive immunity which is produced by the human efforts

Eg →  
↓  
Administration of Immunoglobulins.

### \* Herd Immunity / Community Immunity ⇒

If maximum population ~~percent~~ of any community is vaccinated (around 60-70%) ~~then~~ against any communicable disease than the disease does not occur in vaccinated and unvaccinated population because



## Difference b/w Active and passive

Active Immunity	Passive Immunity
① produced actively by immune system	① Received passively
② Antigen is administered	② Antibody is administered
③ Long-lasting <del>and</del> immunity	③ Short-Lasting immunity
④ provides protection after some-time	④ provides protection immediately
⑤ It can not be administered in immuno-deficit person	⑤ It can be administered in immuno-deficit person

The disease cycle is not properly completed in that community it is called Hard immunity

\* We can not prevent the occurrence of Tetanus by Hard immunity

⇒ We can prevent ⇒ Respiratory most common