

GENERAL PATHOLOGY

PAPER II UNIT 4

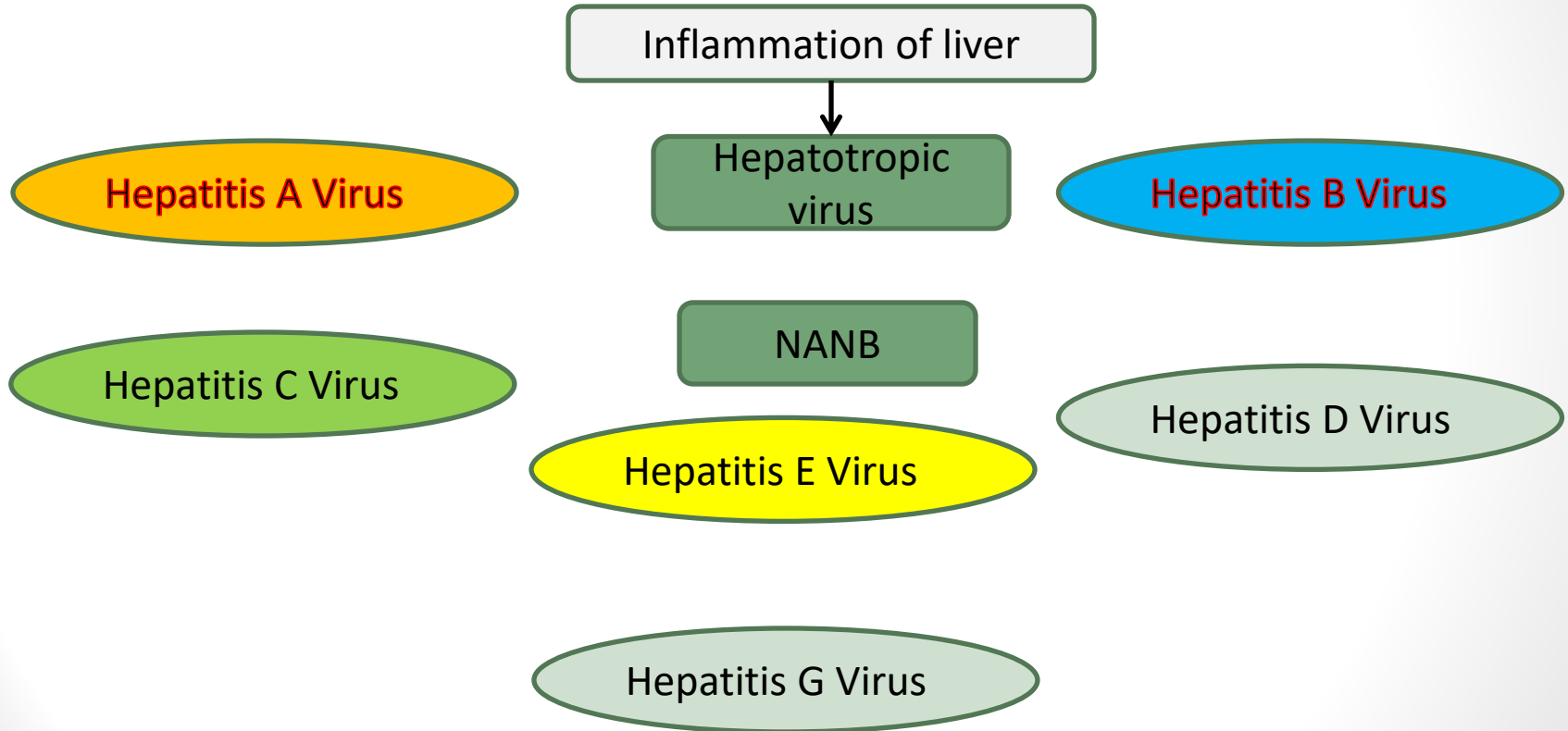
SYLLABUS

- **Infectious diseases:** Aetiology; infectious agents: viruses – hepatitis, fungi – skin diseases
- **Retrogressive changes:** Definition, cloudy swelling, degeneration: fatty, mucoid and amyloid (causes and effects)
- **Disorders of pigmentation:** Endogenous: Normal process of pigmentation, melanosis, jaundice (causes and effects)
- **Necrosis:** Definition and causes; nuclear and cytoplasmic changes; Types: Coagulative, Liquefactive, Caseous, Fat and Fibroid
- **Gangrene:** Definition and types – Dry, moist and gas gangrene

SYLLABUS

- **Circulatory disturbances:** Causes and effects of Hyperaemia, Ischaemia, Thrombosis, Embolism, Oedema and Infarction
- **Inflammation:** Definition and causes (pathogenic and immune); cardinals of inflammation; acute and chronic inflammation
- **Applied pathology:** Anatomical, clinical and molecular; investigating methods: biopsy and surgery (for pathological examination of tissue)
- **Forensic pathology:** Autopsy; Post-mortem changes – Algor mortis: body cooling, Rigor mortis – stiffening of limbs, state of decomposition – Autolysis (process of self-digestion) and putrefaction

VIRAL HEPATITIS



VIRAL HEPATITIS

Some important clinical terms

Acute
Hepatitis

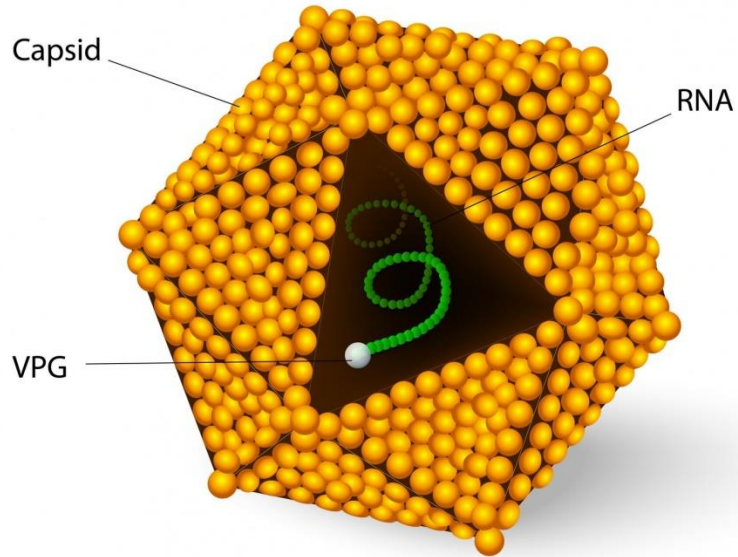
Chronic
Hepatitis

Cirrhosis

Fulminant
Hepatitis

HEPATITIS A

Family Picornaviridae



HEPATITIS A

Enterovirus

Multiplies only in hepatocytes

Fairly resistant to heat and chemicals

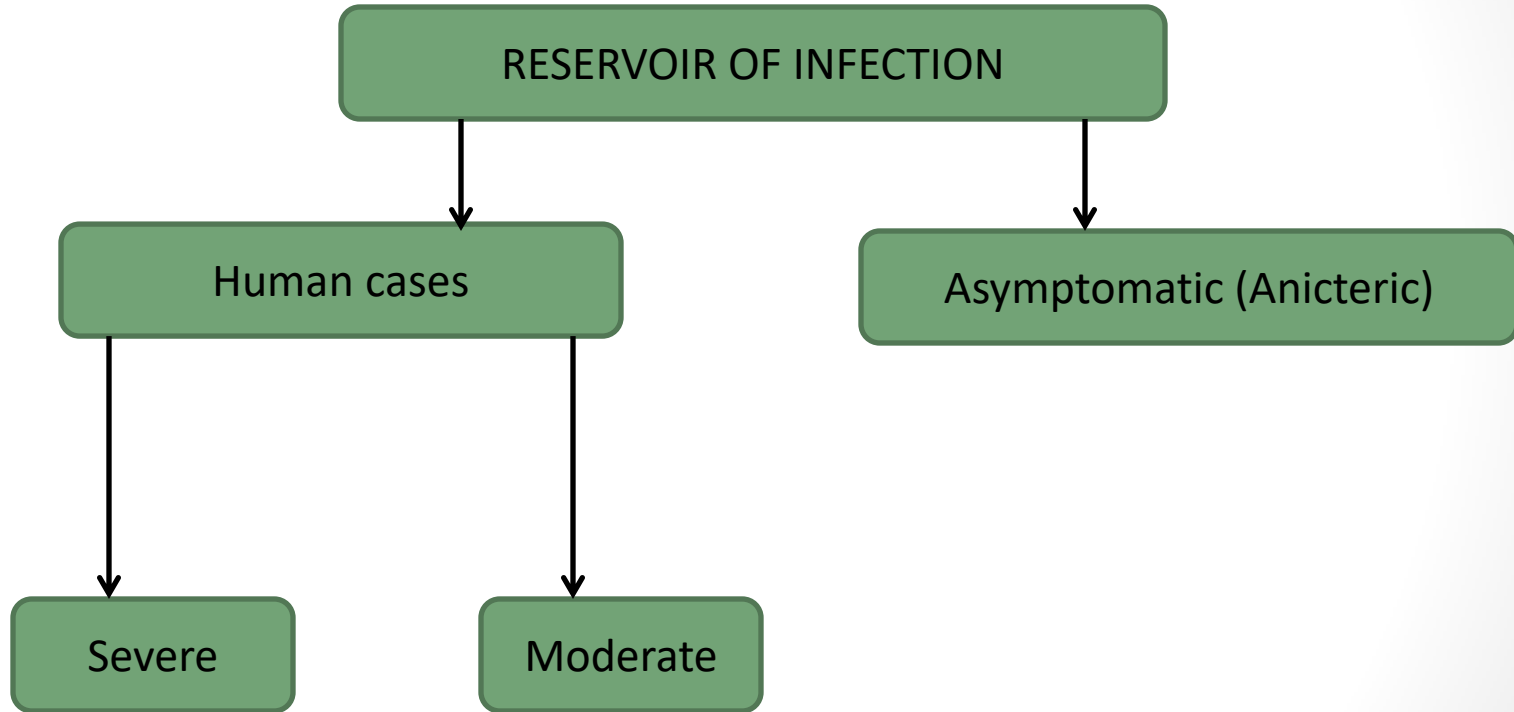
Survive for 10 weeks in well
water

Withstand heating at 60° C for 1 hour

Not affected by chlorination

BOILING, AUTOCLAVING, UV RAYS, FORMALIN

HEPATITIS A



HEPATITIS A

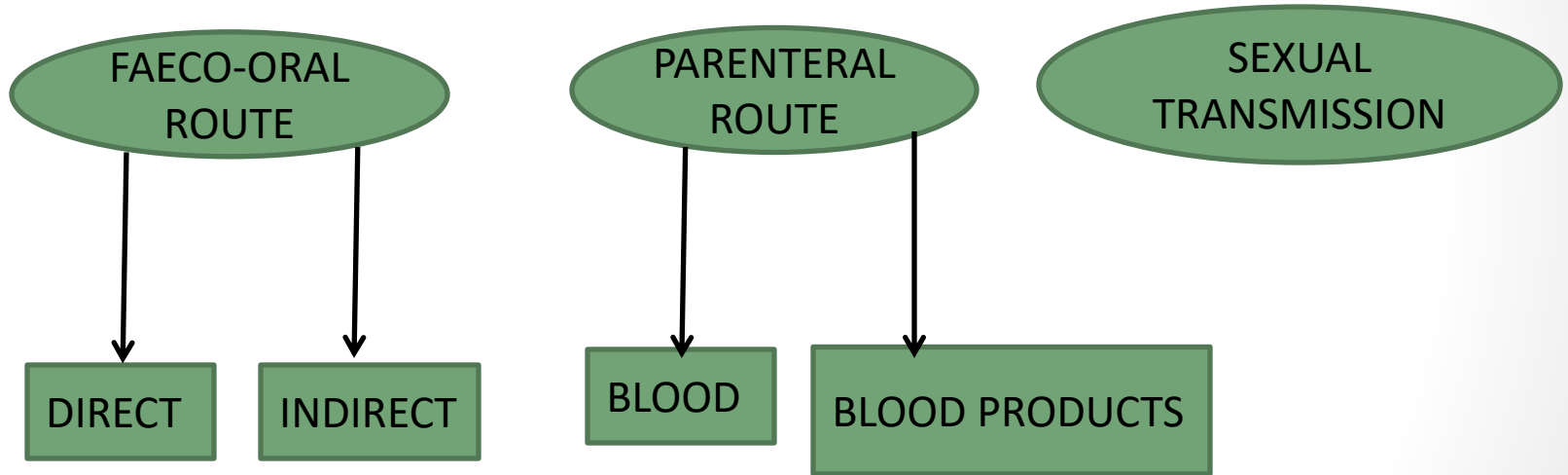
PERIOD OF INFECTIVITY

Greatest from 2 weeks before to 1 week after the onset of jaundice.

Infectivity falls rapidly with the onset of jaundice.

HEPATITIS A

MODES OF TRANSMISSION



HEPATITIS A

SYMPTOMS

Fever, chills, headache, fatigue

Generalized weakness

Anorexia

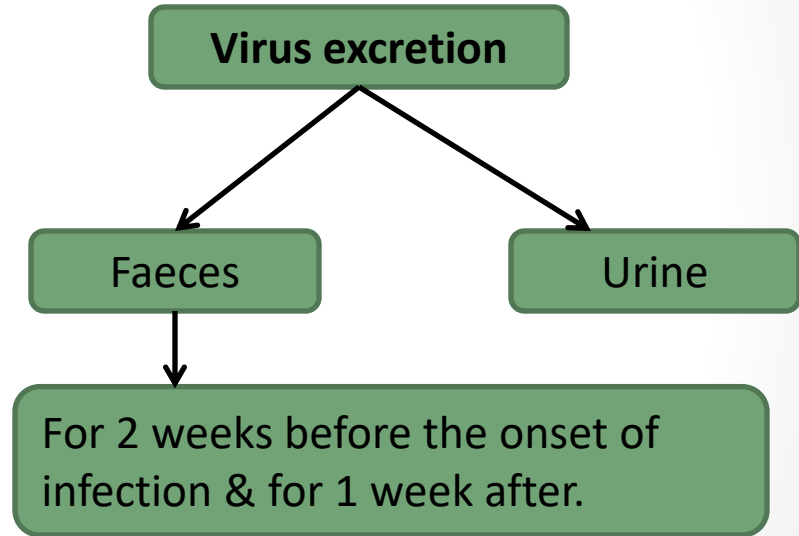
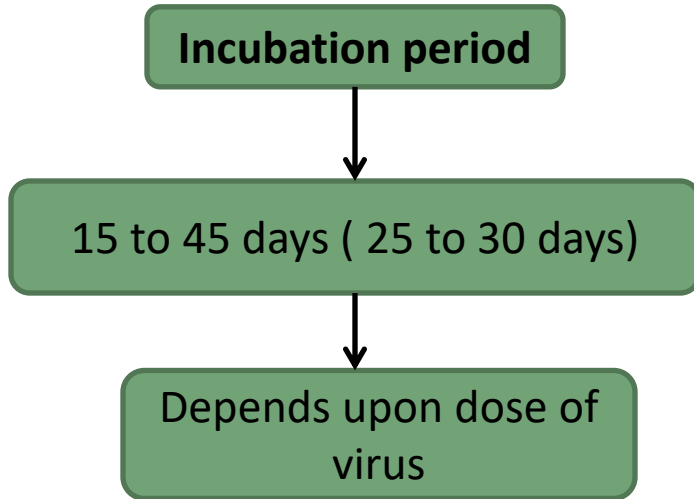
Nausea, vomiting

Dark urine

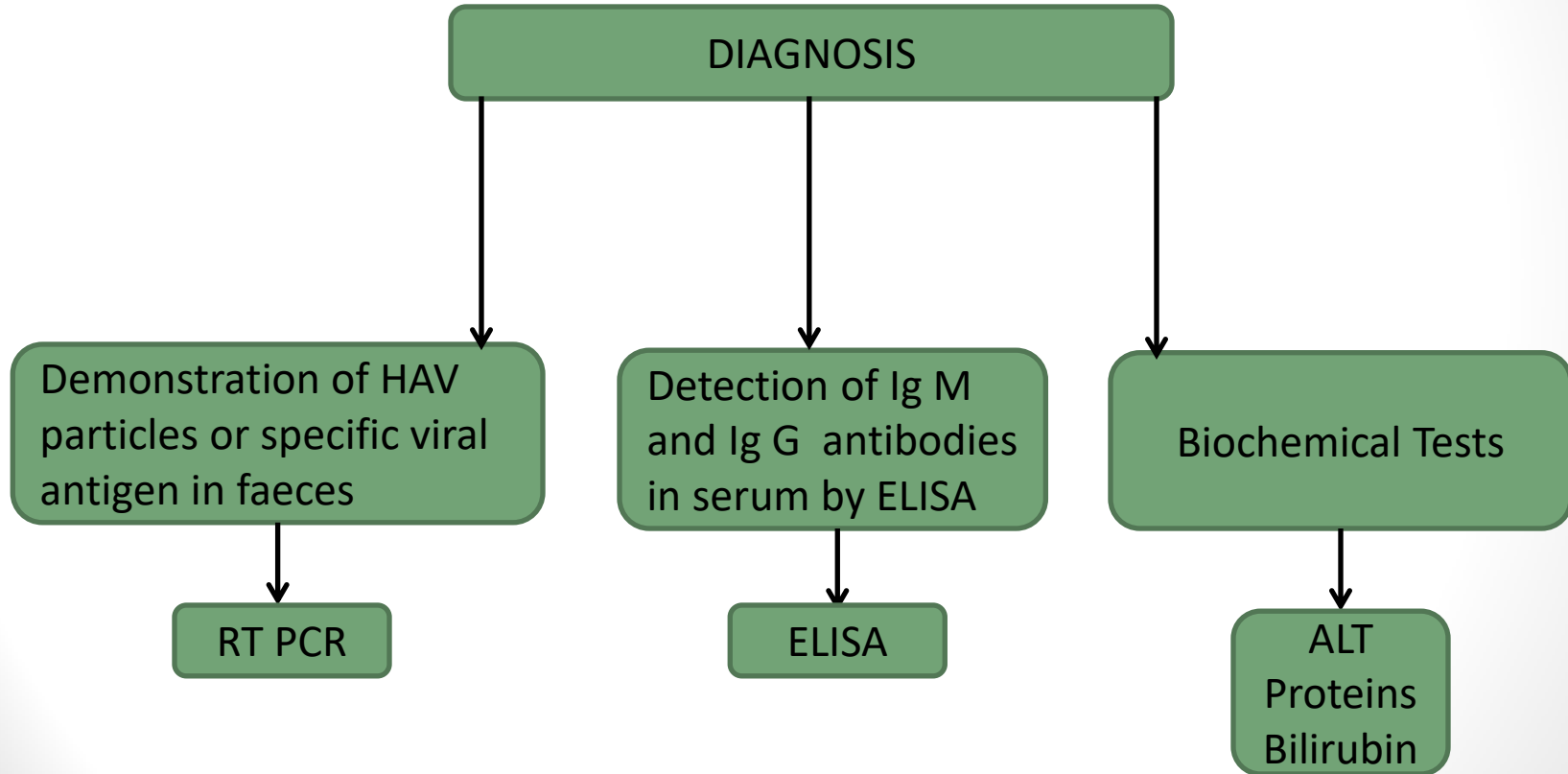
Jaundice

Acute liver failure

HEPATITIS A



HEPATITIS A



HEPATITIS A

PREVENTION & CONTROL

Control of reservoir.

Control of transmission.

Control of susceptible
population

Vaccines

HEPATITIS B

Serum hepatitis.

Systemic infection with major pathology in liver

HEPATITIS B

CAUSATIVE AGENT

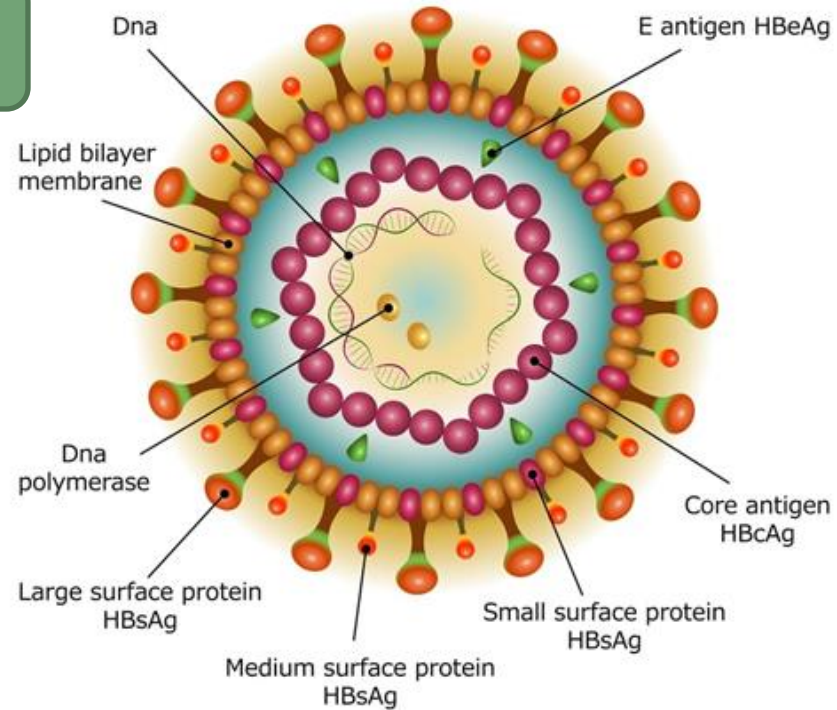
Blumberg in 1963

Spherical form

Tubular form

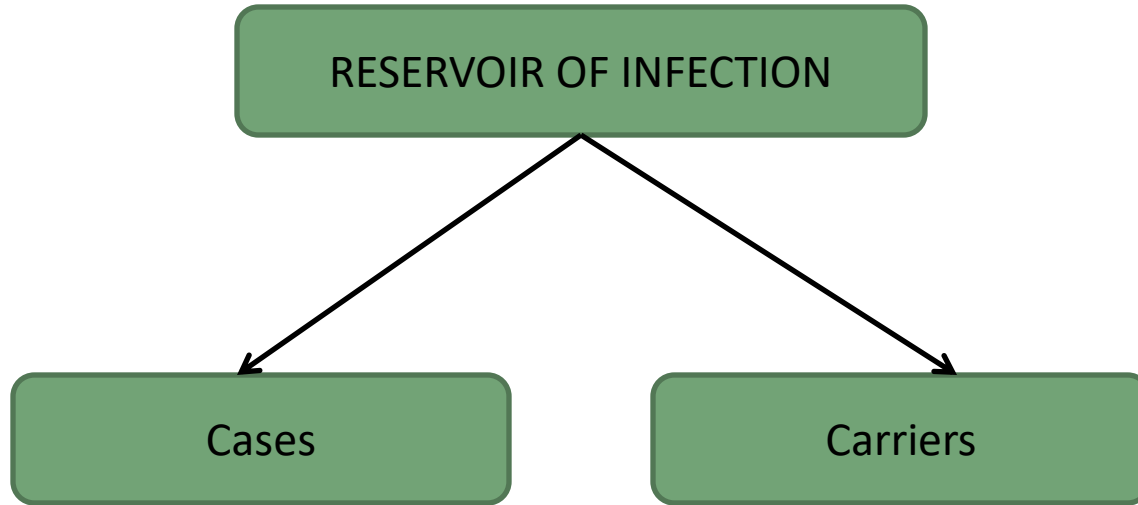
Dane particles

Incubation period is
45-180 days



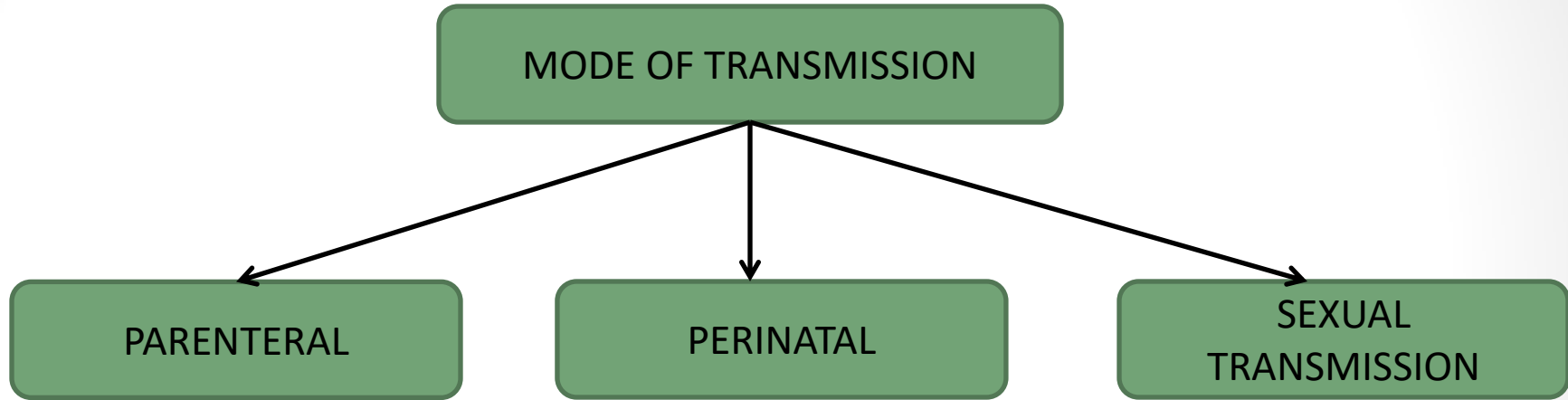
Hepatitis B Virus

HEPATITIS B



Infective materials: Blood, Any body secretions like saliva, semen, vaginal secretion

HEPATITIS B



HEPATITIS B

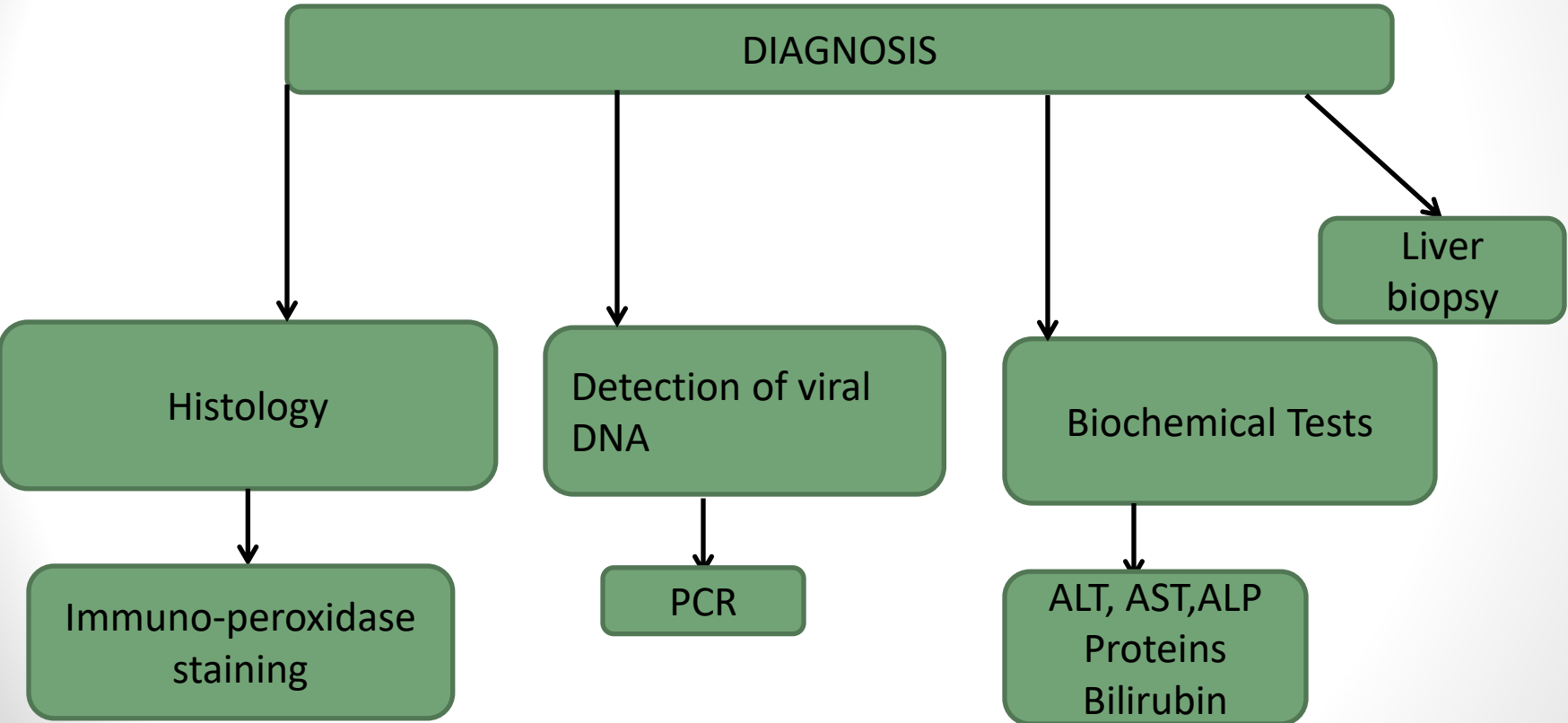
SYMPTOMS

Similar to other types of hepatitis

Chronic liver disease

Primary liver cancer

HEPATITIS B



HEPATITIS B

PREVENTION & CONTROL

Vaccines: Plasma derived vaccines, rDNA vaccines

Hepatitis B immunoglobulin

Other measures

FUNGAL DISEASES OF SKIN

FUNGI CAUSING INFECTIONS

Candida

Ringworms

Cryptococcus

Histoplasma

Aspergillus

Pneumocystis

FUNGAL SKIN INFECTIONS

SKIN

NAIL

HAIR

CUTANEOUS CANDIDIASIS

20 species of candida

Candida albicans

Intestine, mucous membrane,
skin

Symptoms vary depending upon
the area that is infected

CUTANEOUS CANDIDIASIS

Thrus
Oropharyngeal
candidiasis

Candidal Vaginitis

Oesophageal
Candidiasis

Invasive Candidiasis/
Systemic Candidiasis

**Cutaneous
Candidiasis**

CUTANEOUS CANDIDIASIS

Can occur on any part of the body

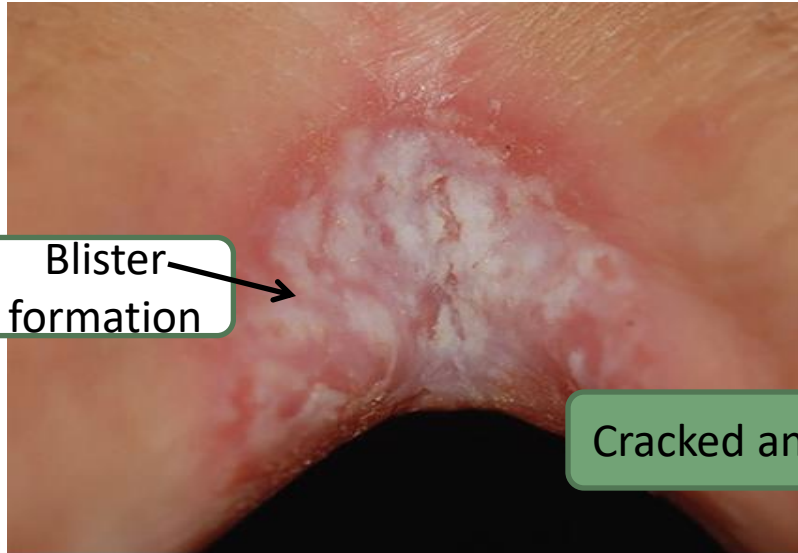
Most commonly found on intertriginous regions-----
Regions where skin areas rub or touch

Armpits, Groins, Skin folds, Areas between fingers and toes

Fungus thrives in warm, moist and sweaty conditions

CUTANEOUS CANDIDIASIS

SYMPTOMS



Blister formation

Cracked and sore

Redness and intense itching



Cutaneous Candidiasis

Rashes



Pustule formation

Source: Kay Shou-Mei Kane, Vinod E. Nambudiri, Alexander J. Stratigos: *Color Atlas & Synopsis of Pediatric Dermatology*, 3rd Edition: www.accesspediatrics.com
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CUTANEOUS CANDIDIASIS

Paronychia

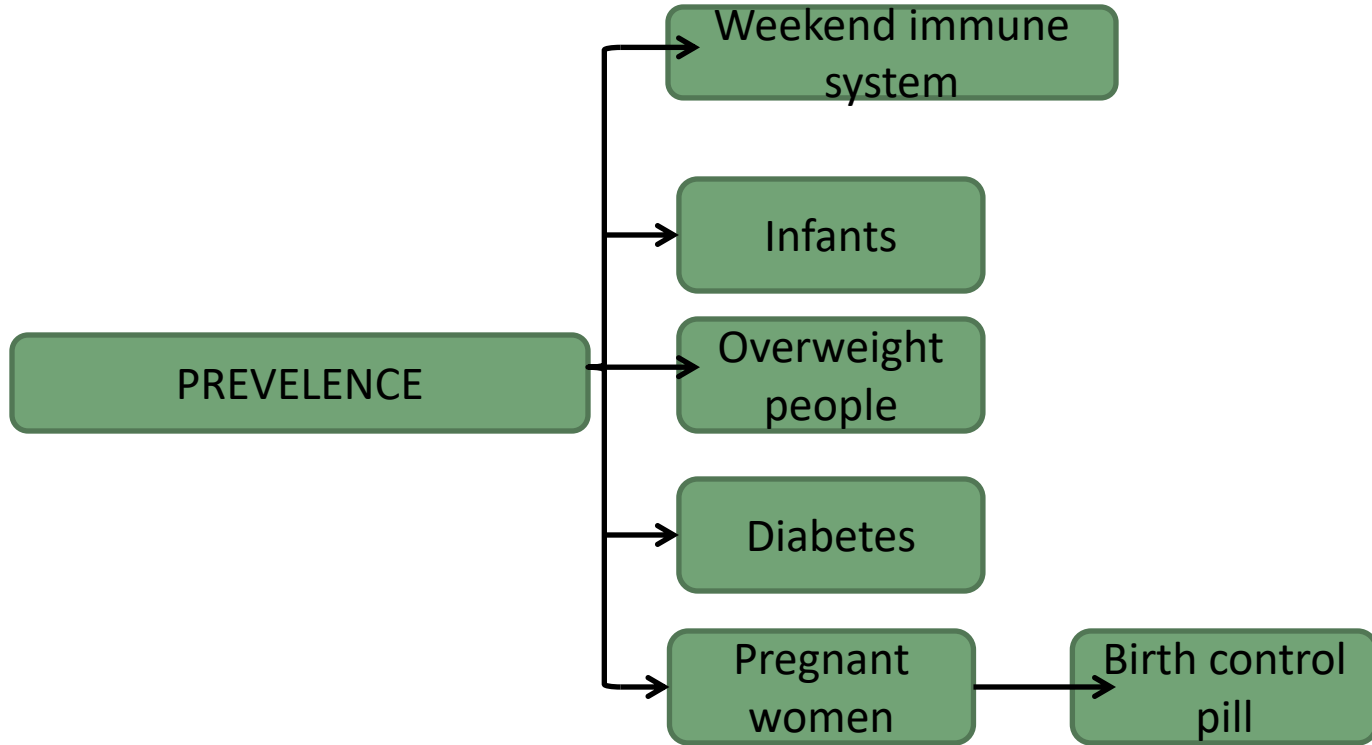


Onychomycosis



Affected nail becomes discoloured, brittle, eroded and detached from nail bed--painful

CUTANEOUS CANDIDIASIS



CUTANEOUS CANDIDIASIS

DIAGNOSIS

Physical
examination

Inspection of location of rash and
appearance of skin

Direct examination
of fungi by wet
mounting

CUTANEOUS CANDIDIASIS

CONTROL MEASURES

Proper hygiene needs to be maintained
Washing and drying of skin regularly

Quickly change out of damp clothing, such as swimsuits or sweaty workout clothes. Changing socks, undergarments regularly
Wear loose fitting clothing

Use of gently scent free soaps

Probiotics
Reduction in amount of sugar

CUTANEOUS CANDIDIASIS

TREATMENT

Antifungal creams that kills candida and reduce the spread of infection

Tioconazole

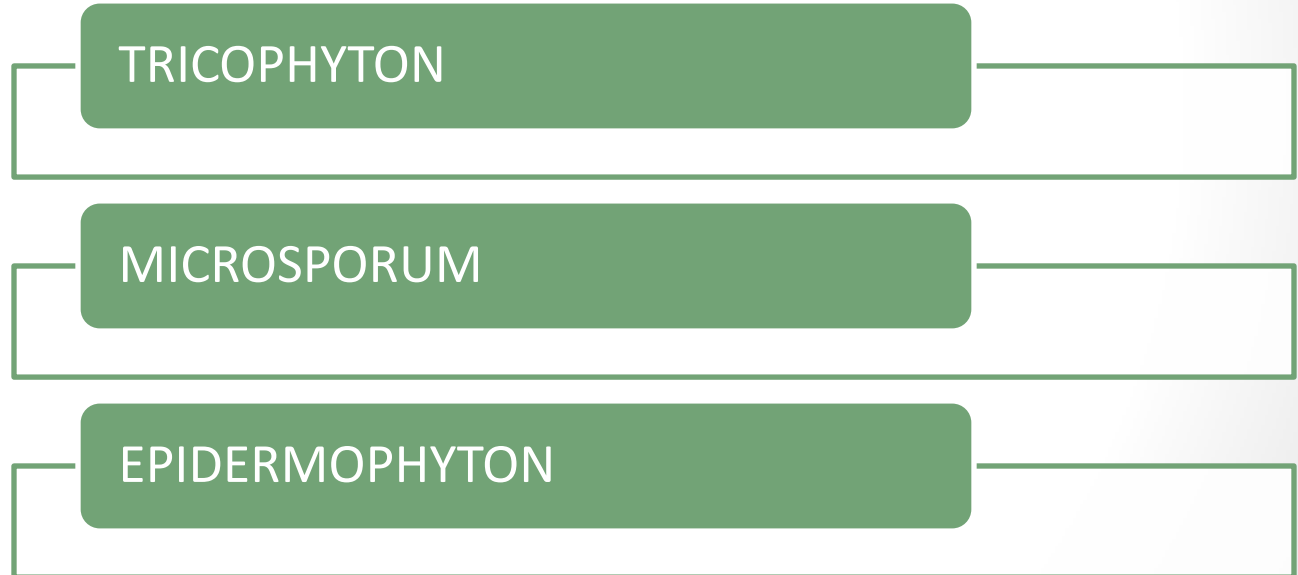
Miconazole

Clotrimazole

If the infections are spread to the areas inside the body **oral antifungal treatment** needs to be taken

DERMATOPHYTOSIS

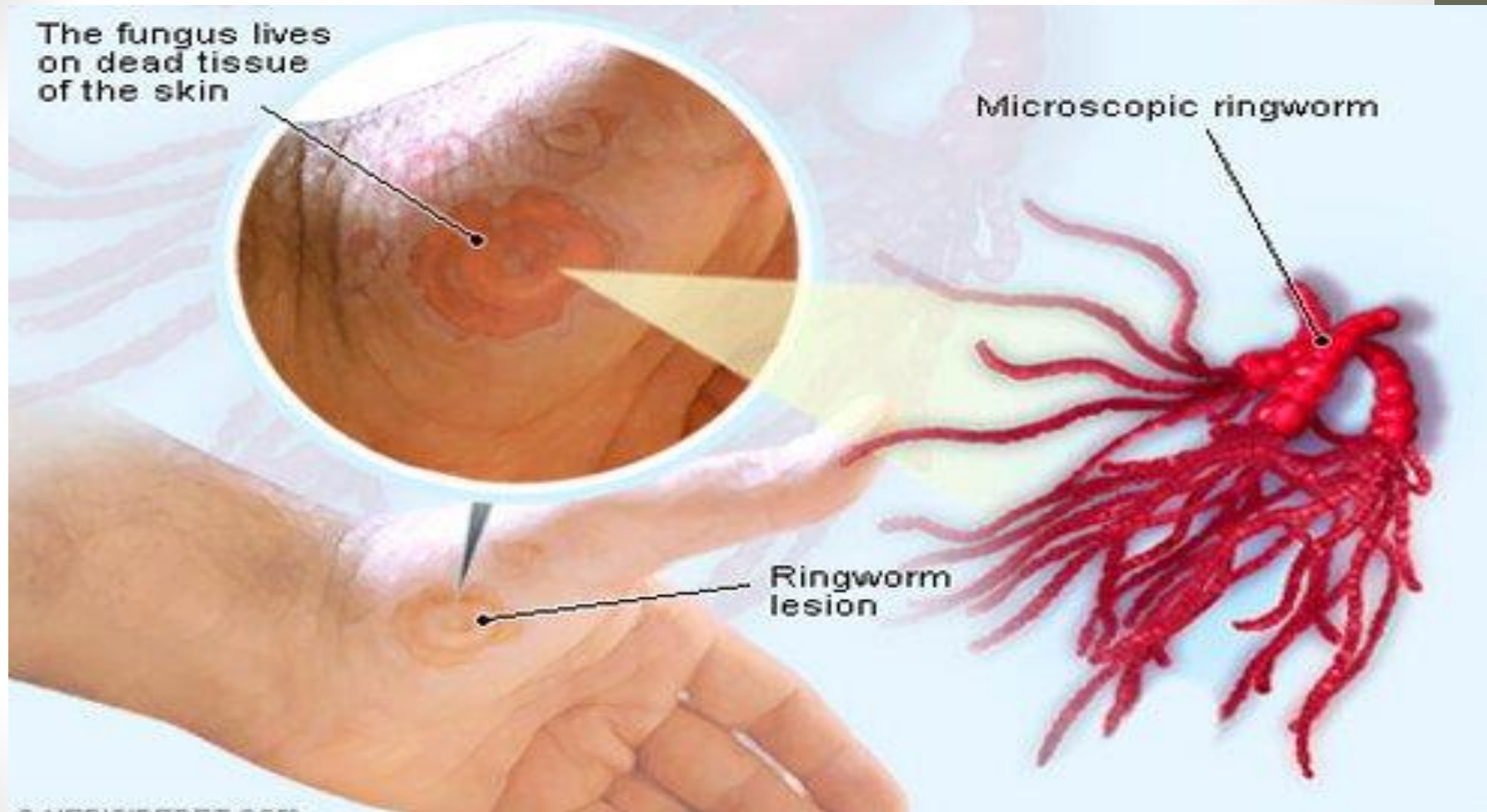
- Ringworm infection
- Tinea



The fungus lives on dead tissue of the skin

Microscopic ringworm

Ringworm lesion



DERMATOPHYTOSIS

TYPES OF RINGWORM INFECTIONS

Tinea manus: Infection of hand

Tinea capitis: Infection of scalp

Tinea unguis: Infection of nails

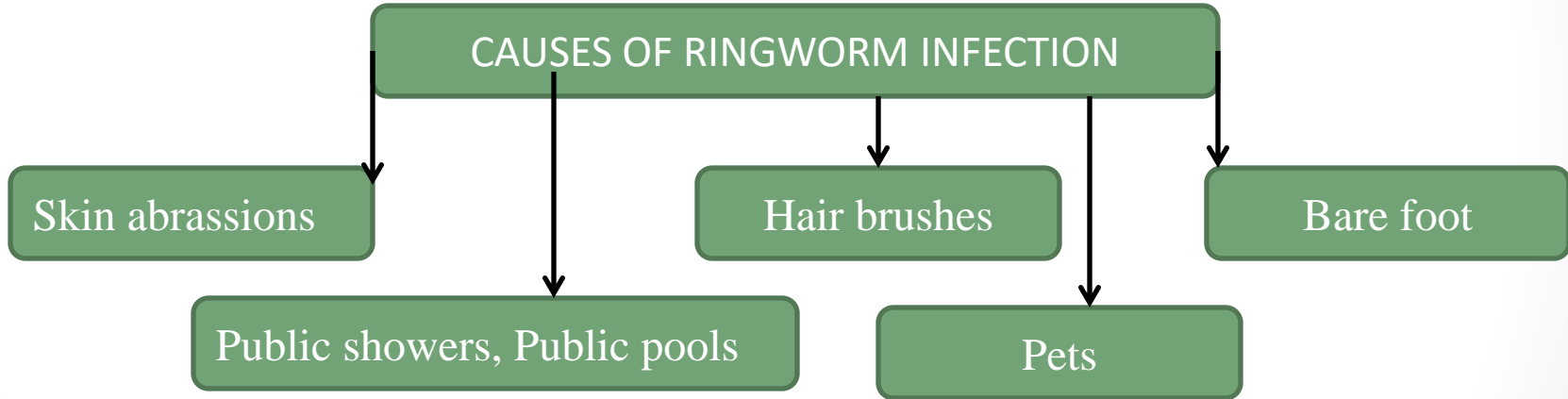
Tinea corporis: Infection of the body

Tinea Barbae: Infection of beard

Tinea cruris: Jock itch, Crotch itch, Crotch rot, Dhobi itch, Infection of groin region

Tinea pedis: Athletes foot, Infection of foot

DERMATOPHYTOSIS



DERMATOPHYTOSIS

SYMPTOMS

Red, Itchy, Scaly or Raised patches



Red on the outside edges or resemble a ring or
Patches with edges that are defined and raised

Patches that develop blisters or begin to ooze

Nail Dermatomycosis: Thicker, discolored nails
that may begin to crack

Scalp is affected, the hair around it may break or
fall off and bald patches may develop

DERMATOPHYTOSIS

SYMPTOMS OF RINGWORM
INFECTION



DERMATOPHYTOSIS

DIAGNOSIS



KOH examination

Skin biopsy, Fungal culture

DERMATOPHYTOSIS

TREATMENT

Topical medication

Oral medication

Antifungal medicines
Ketoconazole
Terbinafine
Clotrimazole



FREE POSTAGE WORLDWIDE



FAST RELIEF FROM RINGWORM & SKIN INFECTIONS



