

Disorder of ENT

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Q. Sinusitis.

Ans- Introduction :

Paranasal sinuses are group of 4 paired air filled spaces that surrounds nasal cavity.

- frontal sinus
- Ethmoid sinus
- sphenoid sinus
- maxillary sinus

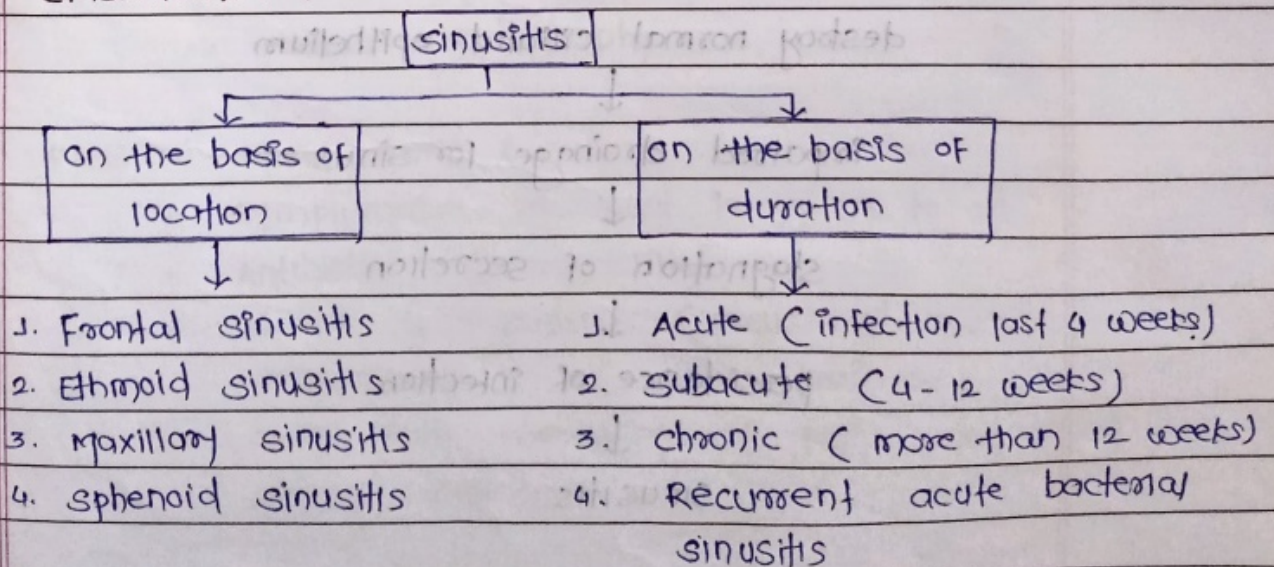
- They reduce weight of skull and humidify the inspired air.

• Definition :

Inflammation of mucus membrane of the (paranasal sinuses)

1. pansinusitis → infection of more than one sinus
2. Rhinosinusitis → inflammatory disease of nose or sinus

• Classification :



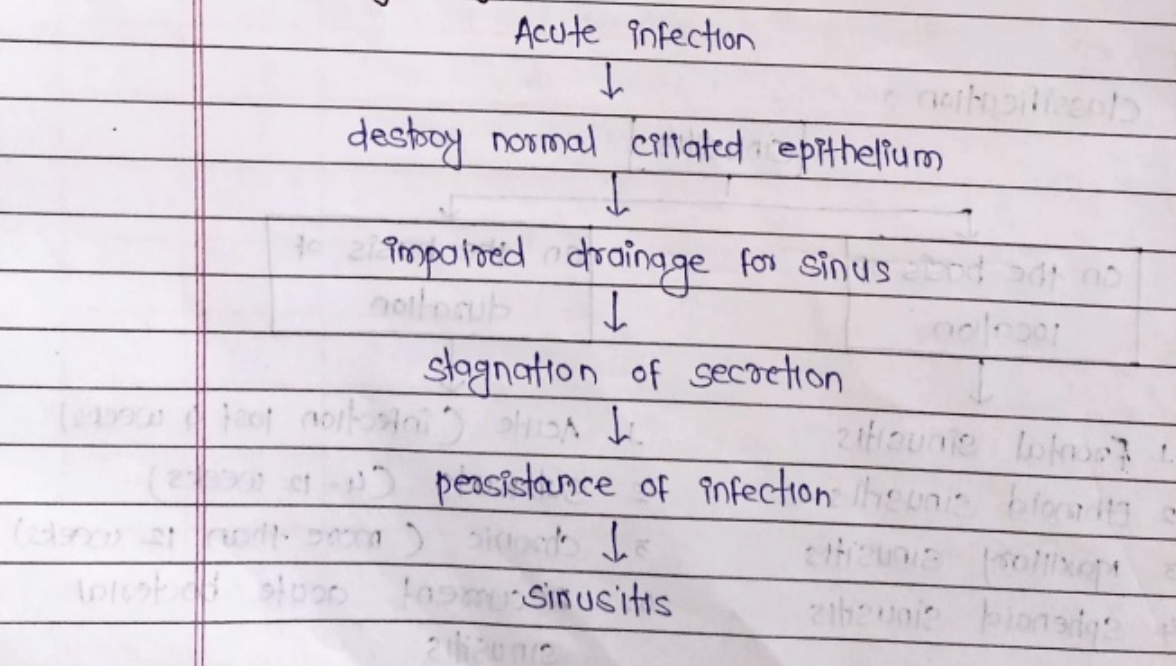
• Causes and Risk factors :

- Bacteria
- Fungi
- Virus (rhinovirus, coronavirus)
- pollutants
- nasal infections
- swimming and diving
- trauma
- dental infection

• Predisposing Factors :

- Smoking
- structural problems (deviated septum, adenoids, infected tonsils, dental infection, polyps)
- previous history of sinusitis

• Pathophysiology :



• Clinical Manifestation :

1. Maxillary sinusitis → pain in jaw, cheek, gum, teeth.
2. Frontal sinusitis → pain in forehead
3. Ethmoid sinusitis → pain in nose, inner canthus, behind eye.
4. Sphenoid sinusitis → pain in behind eye.

• Other symptoms :

- malaise and tiredness
- sore throat
- bad breath
- ↓ sense of smell
- bodyache

• Diagnostic Evaluation :

- History taking
- physical examination
- CBC
- CT scan
- sinus aspiration culture
- sinus radiography

• Medical Management :

- symptomatic treatment is given to pt.
- Antibiotic (Amoxicillin)
- Nasal decongestion (pseudoephedrine)
- Antihistamine (diphenhydramine)
- conservative measure (paracetamol, ibuprofen)
- steam inhalation.

• Nursing management :

- Encourage patient to get plenty of bed rest.
- Instruct pt. about method to promote drainage such as steam bath, hot shower.
- apply moist heat by holding warm.
- encourage pt. to avoid bending, lifting heavy objects.
- talk with doctor before using cold medicine.
- don't use nasal spray with decongestion more than 3 days.

• prevention :

- keep nose as moist as possible.
- avoid upper respiratory tract infection.
- use humidifier.
- avoid very dry indoor environment.
- avoid exposure to irritants.
- avoid long period of swimming in pools.
- avoid water diving.

Q. Epistaxis.

Ans. Introduction :

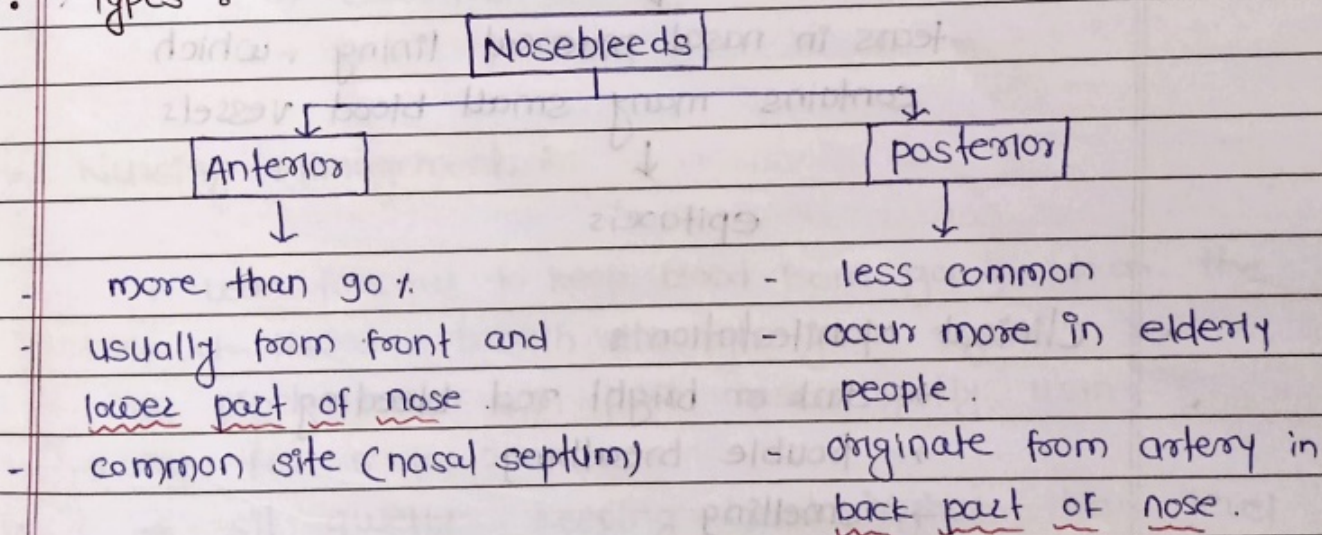
Epistaxis is loss of blood from tissue that lines the inside of nose.

- minor bleeding from vessels of nose.

• Definition :

Epistaxis also known as nosebleed. is a condition where there is active bleeding or acute hemorrhage from nasals, nasal cavity, nasopharynx.

• Types :



• Causes and risk factors :

- exact cause is unknown
- local causes (finger nail trauma, road accident, fracture of nasal bone, nasogastric intubation)
- viral rhinitis, acute sinusitis.
- foreign body in nose
- deviation of nasal septum
- atmospheric changes

- Hypertension
- pregnancy
- bleeding disorder
- coagulopathy

• Pathophysiology :

due to etiological factors



allergic rhinitis or sinusitis



increase pressure on blood vessels



tears in nasal mucosal lining, which contains many small blood vessels



epistaxis

• Clinical Manifestation :

- dark or bright red bleeding
- trouble breathing
- smelling
- headache
- confusion
- dizziness
- weakness
- loss of blood
- blackish stool.

• Medical Management :

1. Anterior nosebleed →

- silver nitrate (seal the blood vessels)
- Nasal packing (promote clotting, stop bleeding)
 - petroleum gauze
 - balloon nasal pack
 - synthetic sponge pack
- Nasal decongestion
- vasoconstrictive agent.

2. posterior nosebleed →

- sedative and pain medication
- nasal packing.

• Nursing Management :

- Lean forward to keep blood from going down the back of throat, breath through your mouth.
- pinch lower soft part nose tightly using thumb for 5 to 20 min.
- sit quietly, keeping head higher than level of heart. put head between legs.
- Ice compress can be applied in nose
- after pinching nose, release it to check if there is still bleeding
- do not smoke.
- try to keep head higher than level of h
- avoid blowing nose vigorously
- avoid picking nose
- avoid staining

Q. Rhinitis.

Introduction :

Rhinitis is group of disorders characterised by inflammation and irritation of mucous membrane of nose.

- It often coexist with other respiratory disorder such as asthma.

• Definition :

Inflammation of mucous membrane of nose caused by bacterial, virus, allergic infection.

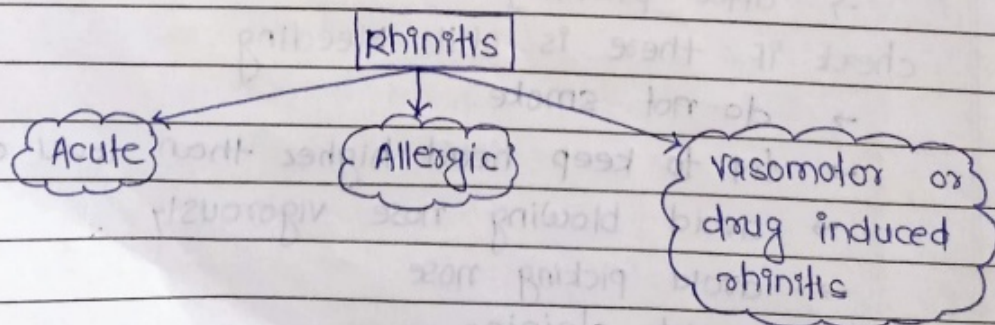
• Incidence :

It affects more than 50 million people in us annually.

• Etiology :

- Bacterial infection
- viral infection (rhinovirus)
- allergens
- alcohol ingestion and odours.
- changes in temperature.

• Classification :



1. Acute Rhinitis →

- non allergic
- influenza or viral infection
- bacterial
- chemical irritation

2. Allergic →

- also known as Hay fever
- caused by allergens
 - Hay
 - pollen
 - dust
 - animal hair

3. Chronic Rhinitis →

- drug induced rhinitis
- syphilis
- tuberculosis
- leprosy

• Clinical Manifestation :

- Rhinorrhea
- Nasal congestion
- Nasal discharge
- sneezing
- pruritus
- Headache

• Diagnostic Evaluation :

- History
- allergen specific immunoglobulin E antibody
- Nasal cytology
- physical examination
- nasolaryngoscopy
- RAST (radio-allergo-sorbent - test)

• Medical Management :

- antibiotics
- antimicrobial agents
- glucocorticoid sprays
- antihistamine
- ophthalmic agents
- saline nasal sprays.

• Nursing Management :

- avoid or reduce exposure to allergens
- Instruct pt. about importance of controlling environment at home.
- use nasal spray
- instruct pt. use proper technique of administration.
- instruct pt. blowing nose before applying medication
- avoid trigger factors.
- don't overuse nasal decongestant.

Q. Otalgia.

Introduction:

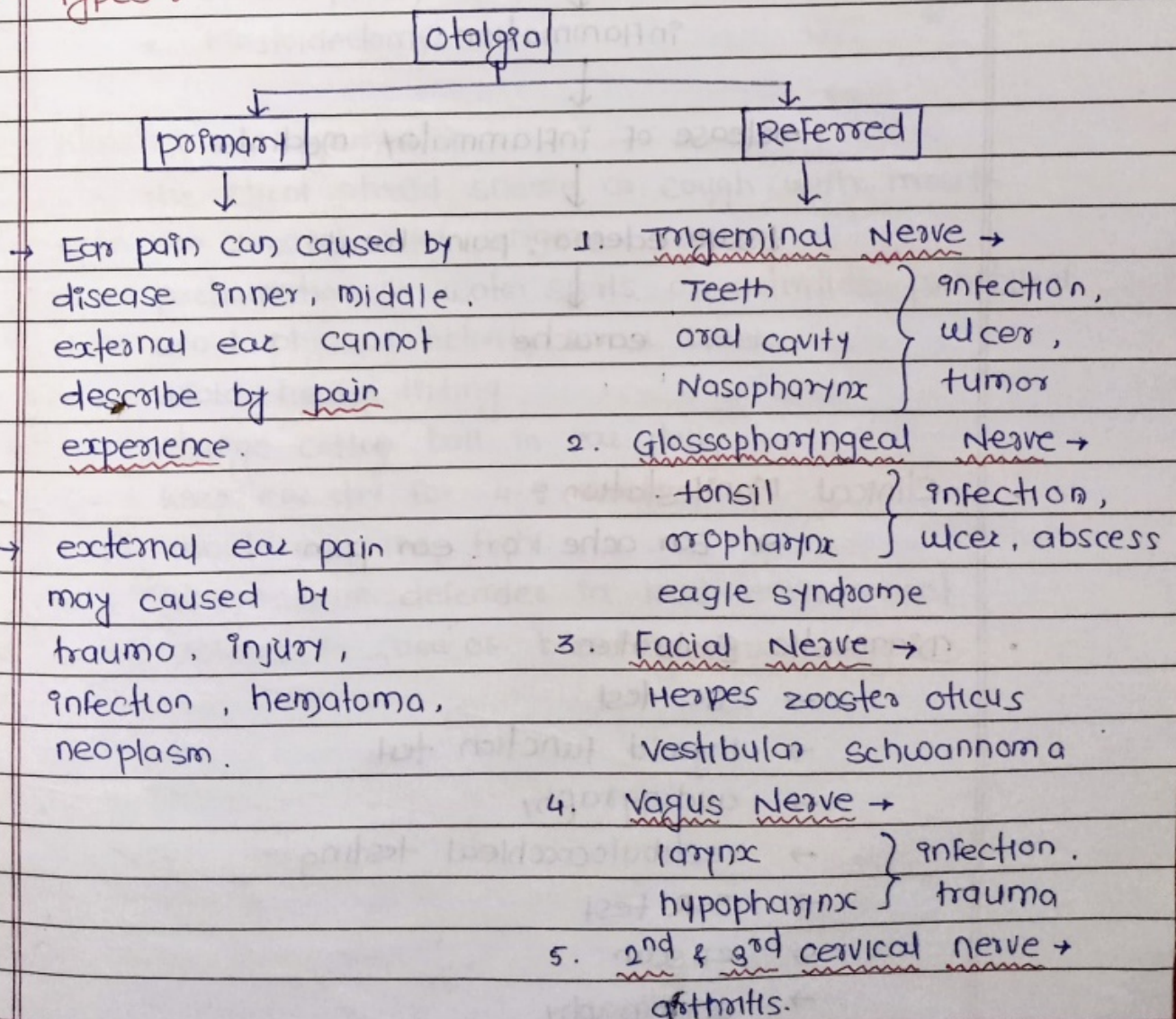
otalgia is pain that originates within ear is primary otalgia.

- Infection in external or middle ear or trauma to ear or head.

• Definition:

otalgia is pain in ear or earache.

• Types:



• Etiology :

- Insertion of unclean (sharp articles)
- Instillation of contaminated sol?
- Swimming in polluted water
- URTI
- Eustachian tube dysfunction
- allergies

• Pathophysiology :

Trauma or infection



Inflammation



release of inflammatory mediator



tissue edema, pain, heat



earache

• Clinical Manifestation :

- Ear ache or ear pain

• Diagnostic Evaluation :

- CBC test
- thyroid function test
- audiography
- vestibulocochlear testing
- ESR test
- CT scan
- endography

• Medical Management :

- Ear irrigation
- antibiotics
- analgesic
- antiviral
- antifungal

• Surgical Management :

- Myringoplasty (closure of perforation of tympanic memb.)
- Tympanoplasty (surgical correctⁿ of perforated tympanic me.)
- ossiculoplasty (ossicular reconstruction)
- Mastoidectomy

• Nursing Management :

- The client should sneeze or cough with mouth open for 1 week after surgery.
- participation in water sports or activities prohibited.
- avoid physical activity for 1 week.
- avoid heavy lifting
- change cotton ball in ear daily
- keep ear dry for 4-6 weeks
- avoid airplane flight.
- wear noise defender in loud environment.
- Inform in case of bleeding from ear.

Q. Otitis Media.

• Introduction :

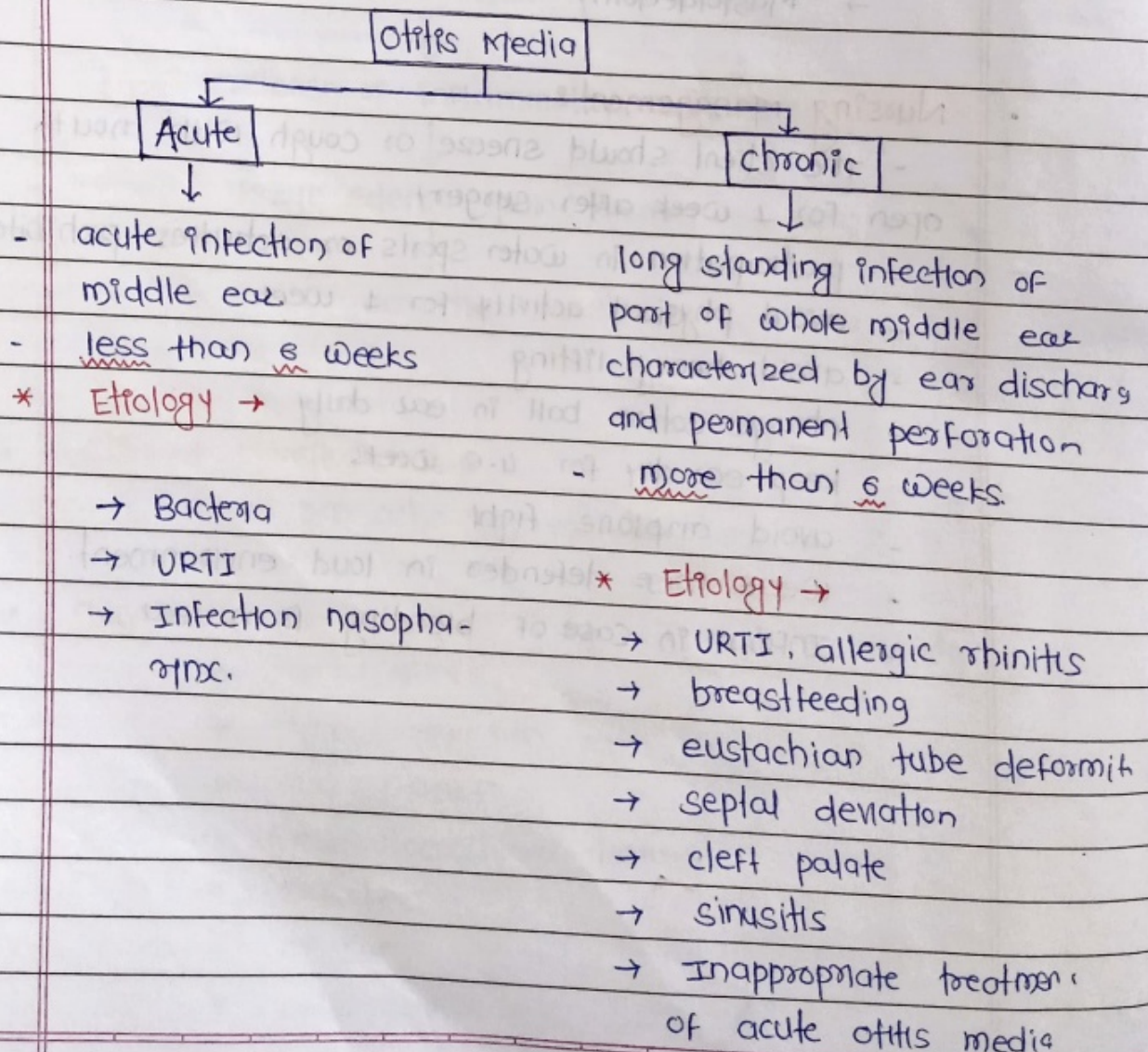
It is most common infection of infancy and early childhood (6 months and 2 yrs of age)

- 27% incidence.

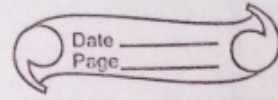
• Definition :

It is an inflammation of middle ear that most often occurs in infant and young children but can occur at any age.

• Classification :



chronic suppurative otitis media diagram



• pathophysiology :

due to etiological factor

↓
exudates and edema in middle ear

↓
retraction of tympanic membrane

↓
serous exudates in middle ear

↓
pus formation

↓
tympanic membrane rupture

↓
acute otitis media

• Clinical Manifestation :

→ otorrhea

→ otalgia

→ fever

→ rhinitis

→ tympanic membrane perforated

→ hearing loss

→ irritability

→ tinnitus

• Diagnostic Evaluation:

- History examination
- physical examination
- otoscopic examination
- culture
- tympanometry, audiometry.

• Management :

1. Medical Management →

- antibiotic
- Instillation of antibiotic drops
- analgesic
- antihistamine

2. Surgical Management →

- myringotomy
- tympanotomy
- tympanoplasty
- ossiculoplasty
- mastoidectomy
- myringoplasty
- adenoidectomy
- otolam (making tiny hole in eardrum with laser)

3. Nursing Management →

• Assessment :-

- collect health history
(complete description of ear problem)
- collect data about duration, intensity of problem, its causes, previous treatment.
- obtain information about health problem and medication.
- physical assessment
 - erythema
 - edema
 - otoshea
 - lesions
 - characteristics (odor, colour, discharge)

• Nursing Diagnosis :-

- Risk for infection related to eustachian tube dysfunction.
- Altered auditory sensory perception related to fluid in the middle ear.
- Anxiety related to the surgical procedure potential loss of hearing.

→ Disturbed sensory perception related to the potential damage of facial nerve.

→ knowledge deficient related to disease, or surgical procedure

• Complication:

- chronic otitis media
- hearing loss
- perforation
- poor speech develop.

Q. Tonsillitis

Ans. Introduction:

Tonsillitis is painful disease that is caused by an inflamed tonsils.

- most attacks of tonsillitis occur in person between ages of 10 to 40.

• Definition:

Tonsillitis is an inflammation or infection of tonsils because they are filled with foreign substance.

- When tonsils are infected, they look swollen, red, tender

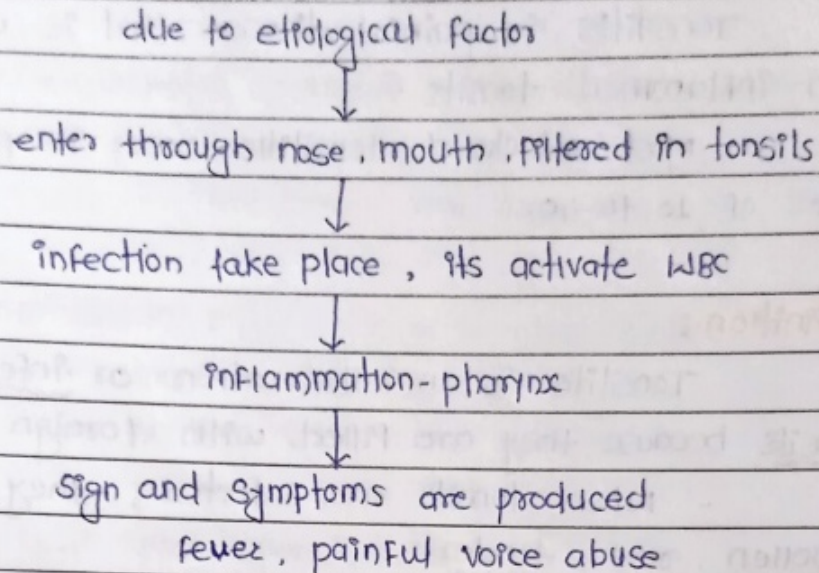
• Causes and Risk factors:

- bacterial infection (Actinomyces)
- viral infection
- streptococcus pyogenes
- glandular fever
- herpes simplex virus
- & cytomegalovirus
- adenovirus
- measles.
- β - streptococci
-

• Types:

1. Acute tonsillitis
2. Recurrent tonsillitis
3. chronic tonsillitis
4. peritonsillar abscess.

• pathophysiology :



• clinical Manifestation :

- red, swollen tonsils
- white, yellow patches
- sore throat
- painful swallowing
- fever
- enlarged glands
- throaty voice
- bad breath
- stomachache
- stiff neck
- headache

• Diagnostic Evaluation :

- History
- physical examination
- throat swab
- blood counts
- culture studies

• Complication :

- difficulty breathing
- obstructive sleep apnea
- tonsillar cellulitis
- peritonsillar abscess

• Management :

1. Medical Management →

- Antibiotic therapy
eg. penicillin
- analgesic eg. Ibuprofen
- erythromycin and clarythromycin

2. Surgical management →

Tonsilectomy → nursing care/role

Disorder of Eye.

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Q. Conjunctivitis.

Ans. Introduction :

The conjunctiva is thin membrane that covers inner surface of eyelid and sclera.

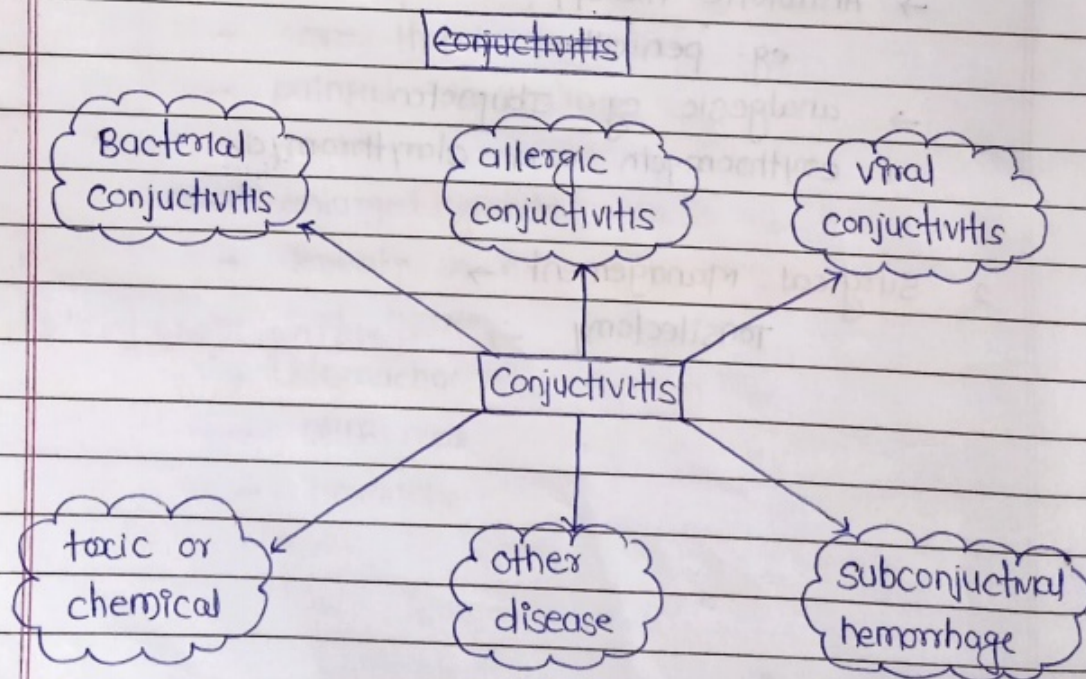
- 6 million peoples are affected.
- Also known as pink eye
- Small blood vessel in conjunctiva become inflamed.

• Definition :

Redness and inflammation of membranes covering whites of eyes and membranes on inner part of eyelids.

- It can occur in one eye or both.

• Classification :



• **Etiology :**

- Bacterial infection (staphylococci, streptococci p, haemophilus influenza)
- viral infection (adenovirus, picorna, myxo)
- allergies
- irritating substance (foreign objects)
- trauma
- changes in pressure within head.
- rheumatoid arthritis
- tuberculosis
- leprosy
- crohn's disease.

• **pathophysiology :**

microbes enter the eye on contact
with infected objects



inflammation of eye



dilatation of blood vessel of eye



swelling, redness,
exudates and discharge

• Clinical Manifestation :

- Itchiness
- body ache
- photophobia
- redness of eye
- discharge and tear
- fever
- tenderness of eye.
- sore throat
- runny nose
- swelling of eyelids
- falling of upper eyelid (ptosis)

• Diagnostic Evaluation :

- History collection
- physical examination
- culture of secretion
- conjunctival scrape for cytology
 - detecting fungal infection
- conjunctival incisional biopsy

• Medical Management :

- Antibiotic eye drops or ointment
- astringent drop.
- broad spectrum antibiotic (tetracycline)
- antiviral drug
 - (acyclovir, adenine arabinoside)
- NSAIDS
- antihistamine
- steroid drops.

• Nursing Management :

- Assess the general condition of patient
- Advise patient to wash hands thoroughly with soap and water frequently.
- avoid touching their eye or sharing towels and washcloths.
- Use cold compresses for about 10 min, 4-5 time day soothe pain.
- wash the eye with cold water.
- eye drops 4 times daily to reduce itching.
- ice packs and cool ventilation
- provide comfort.

• prevention :

- avoid touching the eye area
- wash your hands frequently
- applying medication to eye area
- never share towels or handkerchiefs
- throw away tissue after each use
- disinfecting surface.

Q. Retinal Detachment

Ans. Introduction :

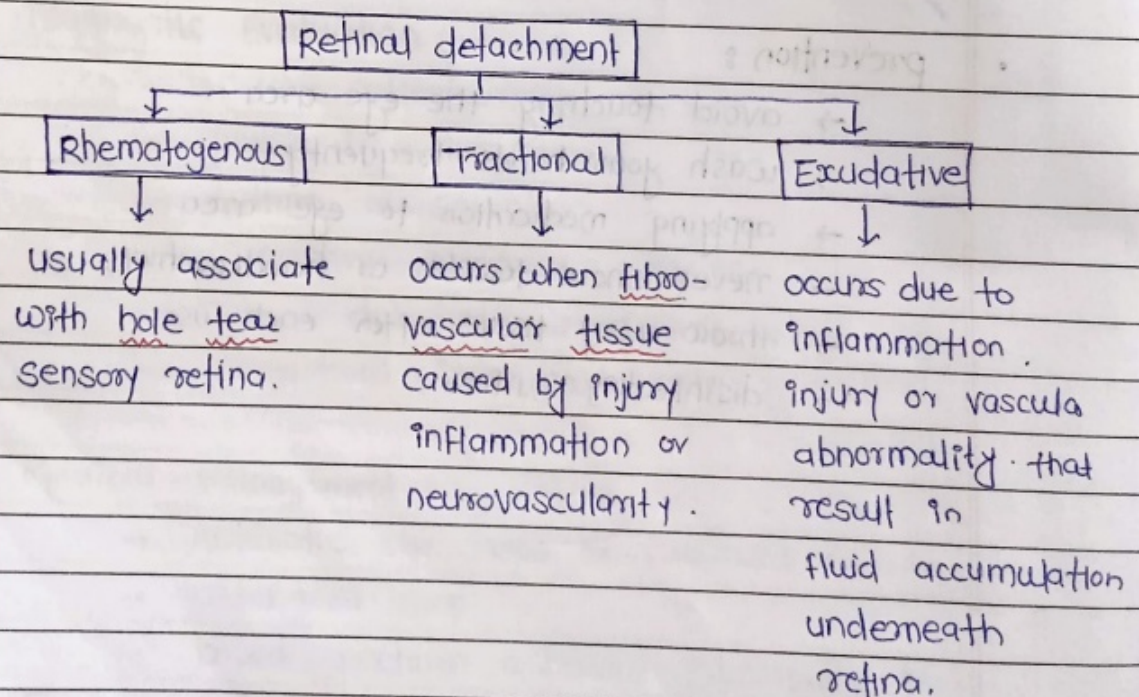
Retinal detachment refers to the separation of RPE from sensory layer:

- Separation of sensory retina and underlying pigments, with fluid accumulation betⁿ two layers.

• Definition :

Separation of sensory area of retina (rods and cones) from the retinal pigment epithelium and choroid.

• Classification :



- Etiology and risk factor :
 - degenerative changes in retina
 - trauma
 - aging
 - high myopia
 - diabetic retinopathy
 - vitreous hemorrhage
 - macular degeneration
 - tumor.
 - uveitis

- pathophysiology :

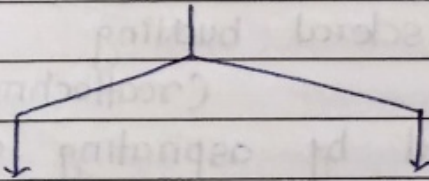
due to etiological factor
(Head injury, trauma, inflammation)



small tear in retina



tears allows entry of vitreous fluid



localized
treatment

untreated



entire retinal detach
vision loss / blindness

- Clinical Manifestation :
 - retinal detachment may occur slowly or rapidly without pain
 - dark spot coming across vision
 - copweps
 - certain sensation
 - photopsia (sensation of bright flashes)
 - lower IOP.
 - visual field loss.

- Diagnostic Evaluation :

- Indirect ophthalmoscopy
- goldmann three mirror examination
- photocoagulation
- slit lamp examination
- Argon laser beam
- Tyrosurgery
- vitrectomy
- Fiber optic light
- scleral buckling

(reattachment of retina accomplished by aspirating subretinal fluid and forcing pigment epithelium closure to retina.)

• Surgical Management :

- cryosurgery
- electro diathermy
- vitrectomy
- pneumatic retinoplexy.

• Nursing Management :

- Explain causes of retinal detachment
- provide safe clinical environment
- encourage pt. for bed rest and to use eye patch.
- advise pt. to avoid eye movement.
- Instruct pt. not to touch eye to ↓ chance of infection
- administer antibiotic eye drop.
- encourage pt. not to cough or sneeze.
- apply warm compress.
- after eye dressing is removed.
- apply clean, warm, moist washcloth to eyes

Q. National programme for control of Blindness

Ans- Introduction :

National programme for control of Blindness launched in 1976.

- To reduce prevalence of blindness.
- prevalence is high in Africa (1.2%)

• Definition :

India was first country in world to launch national level blindness control programme.

The programme in which used for the reduce the prevalence rate of blindness.

• Goal :

To reduce prevalence of blindness (1.4 to 0.3 %)

• Causes :

1. cataract (62.6%)
2. Refractive error (19.70%)
3. Corneal blindness (10.90%)
4. Glaucoma (5.80%)
5. Surgical complication (1.20%)
6. posterior segment disorder (4.70%)
7. Others (4.19%)

• Objectives :

- To bring down prevalence rate of cataract
- To provide high quality of eye care
- To expand coverage of eye care services
- To reduce backlog of blindness
- To develop institutional capacity for eye care service.

• Strategies :

- decentralized implementation of scheme
- reduction in backlog of blind person
- participation of community and panchayat etc.
- development of eye care service
- screening of school going children
- public awareness about prevention and treatment
- specific focus on illiterate women

• Activities :

- Improvement of quality of eye care services
- provision of modern equipment instruments
- provision of vehicle
- ↑ no. of cataract surgery
- abolition of reach out camps.
- involvement of NGOs.

• Component Activities under NPCB :

- cataract surgery
- school eye screening
- childhood blindness
- prevent corneal blindness
- treatment on glaucoma
- eye banking

• New Initiatives :

- Eye operation theatre in districts
- Appointment of ophthalmic surgeons
- appointment of ophthalmic assistants (PHC)
- eye donation counselor
- telemedicine in ophthalmology
- involvement of private practitioners

• Special features :

- Expected community participation
- motivation of people for cataract surgery
- to organize camps.
- Health education message
 - we share eye care
 - let your eyes changes someone life.
- Role of teachers in school eye screening progr

Q. Cataract

Ans. Introduction :

Cataract is derived from Greek word cataractos means running water.

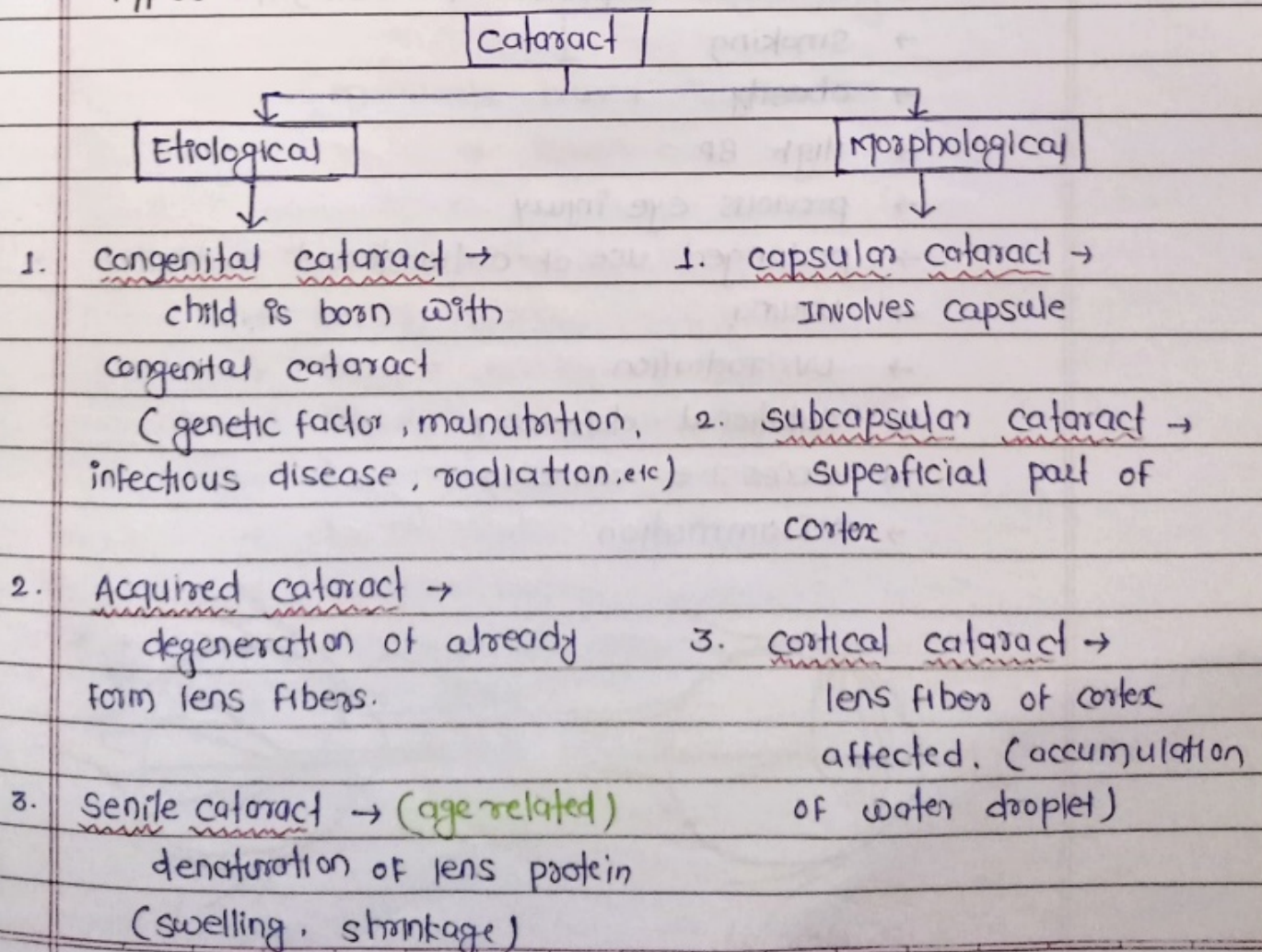
- cataract progress slowly to cause vision loss and potentially blinding if untreated.

• Definition :

clouding and opacity that develops in crystalline lens of eye, varying in degree from slight to complete opacity.

- obstruction in passage of light.

• Types :



4. Traumatic cataract →
blunt injury to eye

4. Subnuclear cataract →
(deep outside nucleus)

5. Complicated cataract →
intraocular disease

5. Nuclear cataract →
nucleus of crystalline lens.

6. Metabolic cataract →

6. Polar cataract →

7. Radiation cataract →

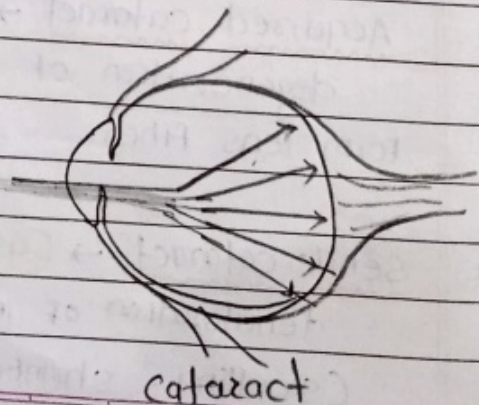
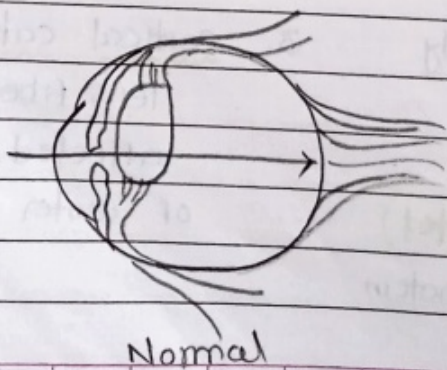
Superior part of cortex

8. Electric cataract →

in polar region.

• Etiology :

- Ageing
- DM
- excessive exposure to sunlight
- Smoking
- obesity
- High BP
- previous eye injury
- prolonged use of corticosteroid medication
- trauma
- UV radiation
- nutritional deficiency
- excessive drinking
- inflammation



• pathophysiology :

clear lens of eye transmit light rays
entering eye and focuses them on retina



with ageing lens proteins progressively denature
causing ↑ density and yellowish brown
colouration of lens



trauma can cause thickening and
irreversible whitening of lens.



cloudy lens lacks the ability to
transmit and focus light ray on retina.



manifests blurry vision, loss
of vision

• clinical manifestation :

- blurry vision
- trouble seeing at night
- seeing colour as faded
- ↑ sensitivity to glare
- double vision.
- astigmatism
- yellowish of colours
- color shift
- brunescens (yellow colour shift to brown)

- Diagnostic Evaluation :

- History collection
- physical Examination
- visual acuity test
- pupil dilation
- tonometry
- slit lamp examination
- retinal exam

- Medical management :

No medication, eyedrops, eyeglasses are cures cataracts or prevent age related cataracts

- Surgical management :

- phacoemulsification

(small incision inside cornea, break up cloudy center of lens, removed with suction)

- Extracapsular surgery (5-6mm)

(remove cloudy part of lens through a long incision in cornea.)

- Intracapsular cataract extraction (ICE) (10-12mm)

(large incision required; pressure placed on vitreous body)

- Lens replacement

- aphakic eyeglasses
- contact lenses
- IOL

• Complication :

- rupture posterior capsule
- ↑ intraocular pressure
- shallow anterior chamber
- retinal detachment
- oedema
- uveitis (inflammation of iris)
- infection

• Nursing Management :

* Assessment →

- Test pupillary response
- examine cornea to rule out any opacities
- perform USG B-scan
- measure intraocular pressure
- perform biometry
- perform dilated fundus examination

* Nursing Diagnosis →

1. Risk for injury related to blurred vision.

- help patient set environment

2. Anxiety → orient the pt. in room

- do not put pressure on affected eye trauma.
- use proper procedure when giving eye drugs.

2. Acute pain related to trauma to incision

- encourage use of sunglasses in strong light
- give cold compress
- give medication to control pain

3. Anxiety related to lack of knowledge.

• prevention :

- protect your eyes from UVB.
- have regular eye exams
- stop smoking
- eat fruits and vegetables
- maintain healthy weight
- keep diabetes and other medical condition in check.

Q. Glaucoma.

Ans- Introduction :

Glaucoma is refer to used group of ocular condition characterized by optic nerve damager.

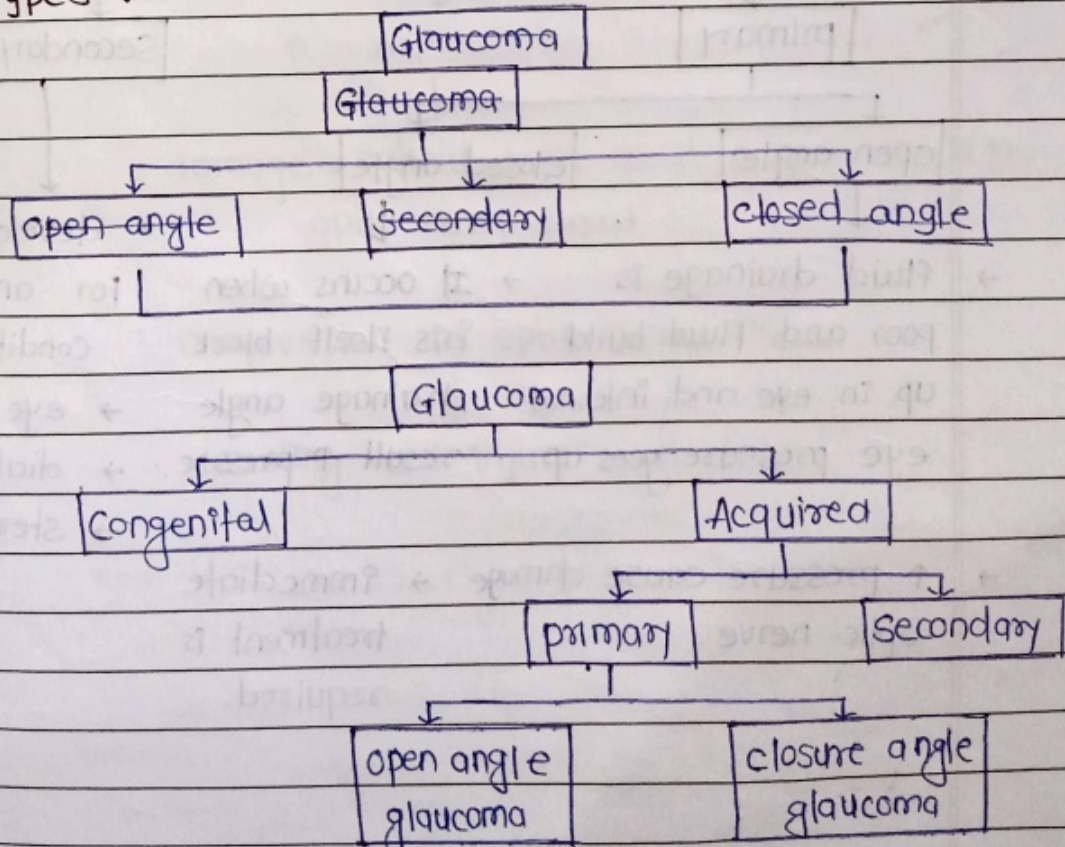
- ↑ ocular pressure (IOP) (Normal → 15.5 mmHg)
- loss of retinal nerve fiber.

• Definition :

Group of eye diseases in which optic eye nerves is damaged leading to irreversible loss of vision due to ↑ IOP.

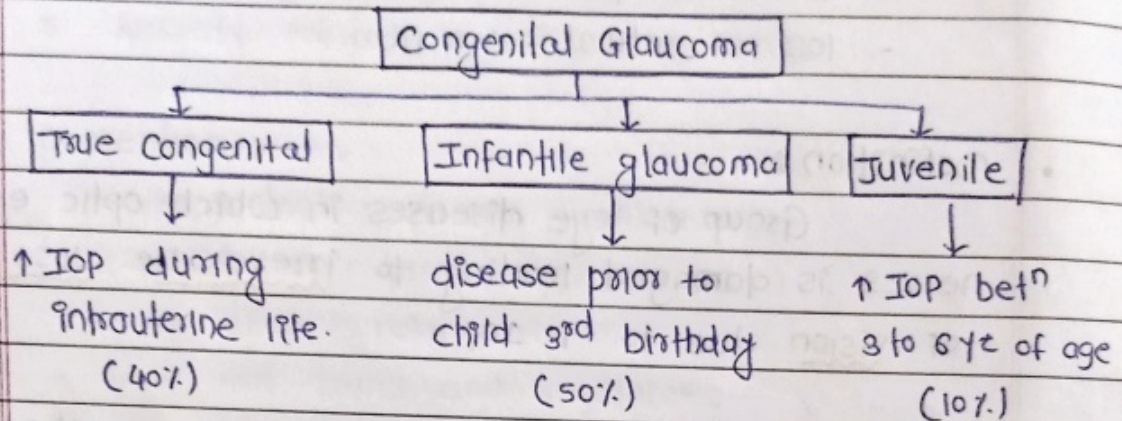
- It is symptomatic condition of eye where IOP is more than normal.

• Types :

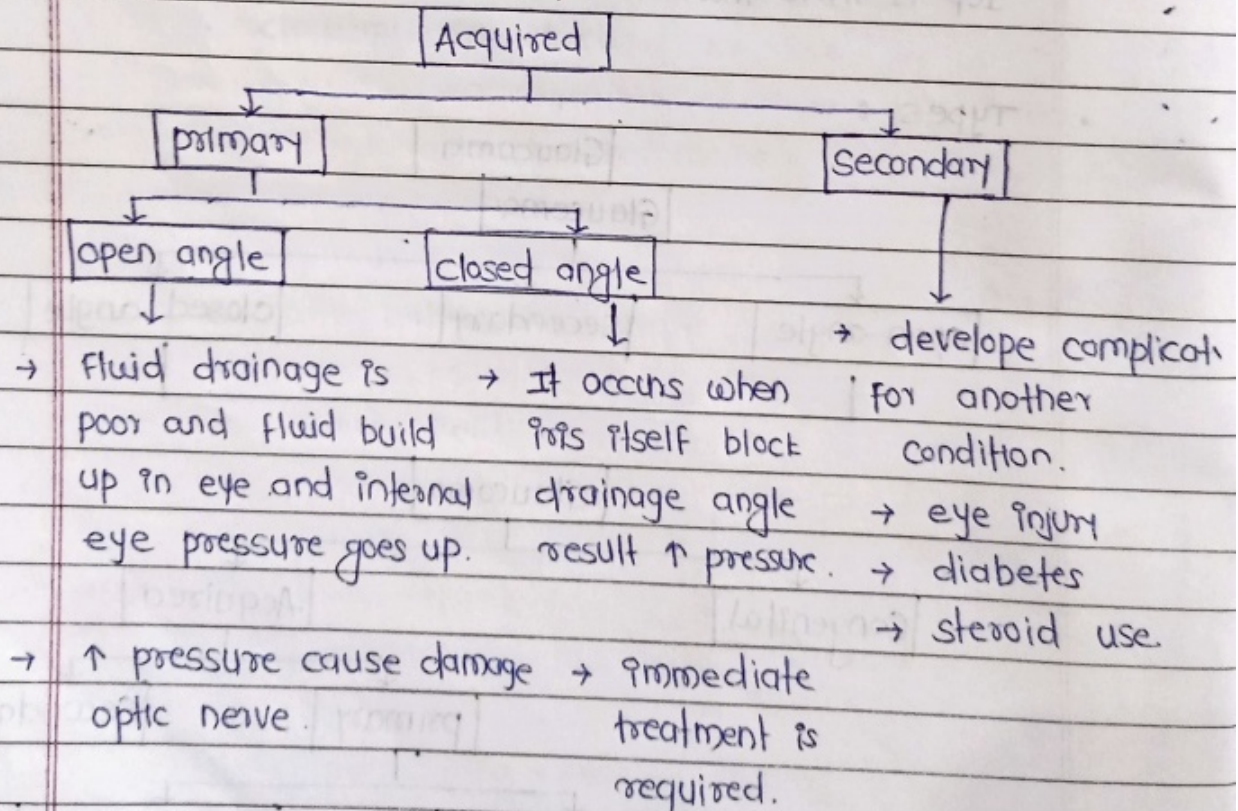


1. Congenital →

- congenital defect angle of anterior chamber
- obstruct out flow of aqueous humor
- damage optic nerve



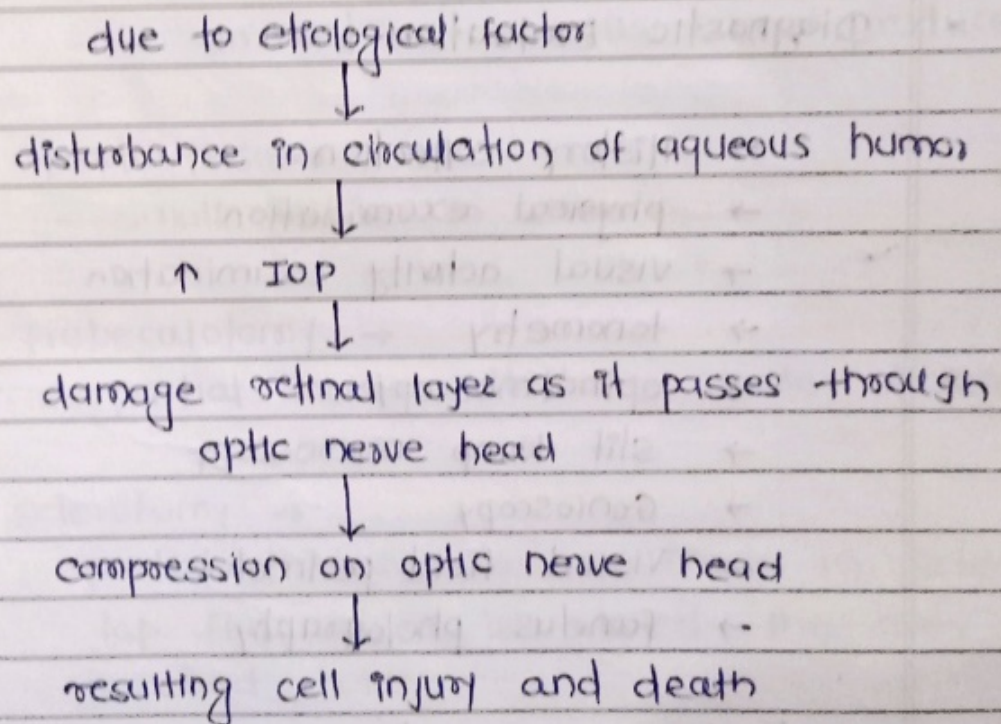
2. Acquired Glaucoma →



• Etiology :

- genetic
- aging
- IOP hypertension
- ocular surgery
- migration
- black ethnicity
- prolonged use of systemic or local corticosteroid.

• pathophysiology :



• Clinical Features :

- pain and redness in eyes
- Increases IOP
- blurred vision
- headache
- nausea
- vomiting
- oedematous cornea
- moderate pupillary dilation
- ciliary congestion
- delayed dark adaptation

• Diagnostic Evaluation :

- History collection
- physical examination
- visual activity examination
- tonometry
- ophthalmoscopy
- slit lamp microscopy
- Gonioscopy
- visual field perimetry
- fundus photography

• Medical Management :

- β -adrenergic blockers
- cholinergic
- carbonic anhydrase inhibitors
- prostaglandin analog

• surgical management :

1. Argon laser trabeculoplasty →

- to treat open angle glaucoma.
- ↑ outflow of aqueous humor

2. Laser iridotomy →

- to eliminate pupillary block
- relieve pressure

3. cyclotherapy →

- decrease ciliary process
- ↓ amount of aqueous humor produced

4. cyclodialysis →

- small incision in sclera

5. Trabeculotomy →

- partial incision thickness made in sclera.

6. sclerotomy →

- partial thickness incision made in sclera
- top flap sclera is closed the over punched holes.

- Nursing Management :
 - Assess the patient condition.
 - Assess family for patient care.
 - Assess visual acuity, IOP.
 - Assess pt. for degree of visual impairment.
 - Keep patient glasses.
 - Keep patient. Instruct pt. and family regarding need for maintain safe environment.
 - Instruct pt. and family regarding safe lighting.
 - pt. should wear sunglasses to reduce glare.
 - Advise Family to use contrasting bright colours in house hold furnishing.
 - provide comfortable position.
 - side rails must be raised at all time to protect pt. in event.
 - Remind pt. should not cough, sneeze.
 - health education.

Imp

Q. Eye Banking

Ans. Introduction:

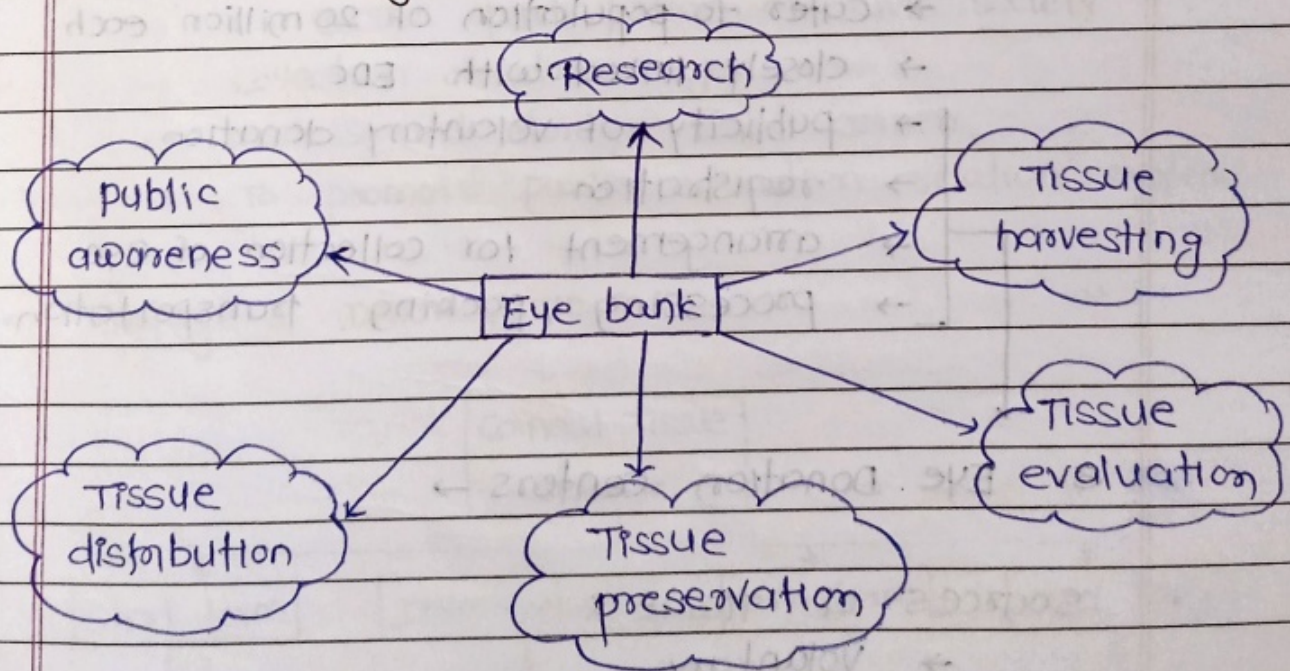
Eye banking is non-profit community organization.

- It is organised by government to collect and distribute human eyes to those requiring corneal transplantation.

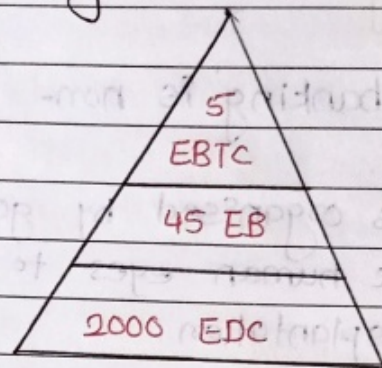
• Definition:

Eye banking is organization which deals with collection, storage, distribution of cornea for purpose of corneal grafting.

• Function of eye bank:



• Eye Banking Organization :



1. Eye Bank Training center (EBTC) →

- Tissue harvesting, processing, distribution
- creating public awareness
- training eye banking personnel

2. Eye Banks (EB) →

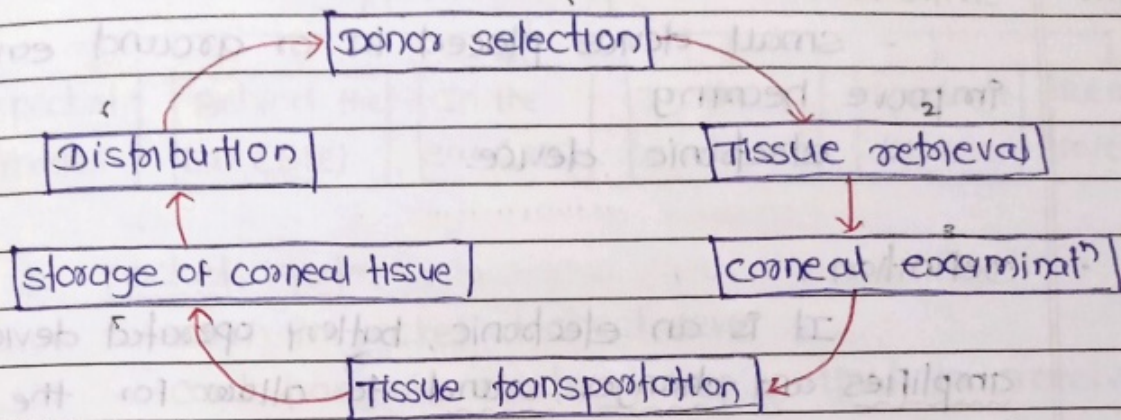
- cater to population of 20 million each
- closely linked with EDC.
- publicity of voluntary donation
- registration
- arrangement for collection of eye
- processing, packing, transportation

3. Eye Donation Centers →

• Sources of Tissue :

- Voluntary
- police mortuaries
- Hospital Cornea Retrieval programme (HCRP)

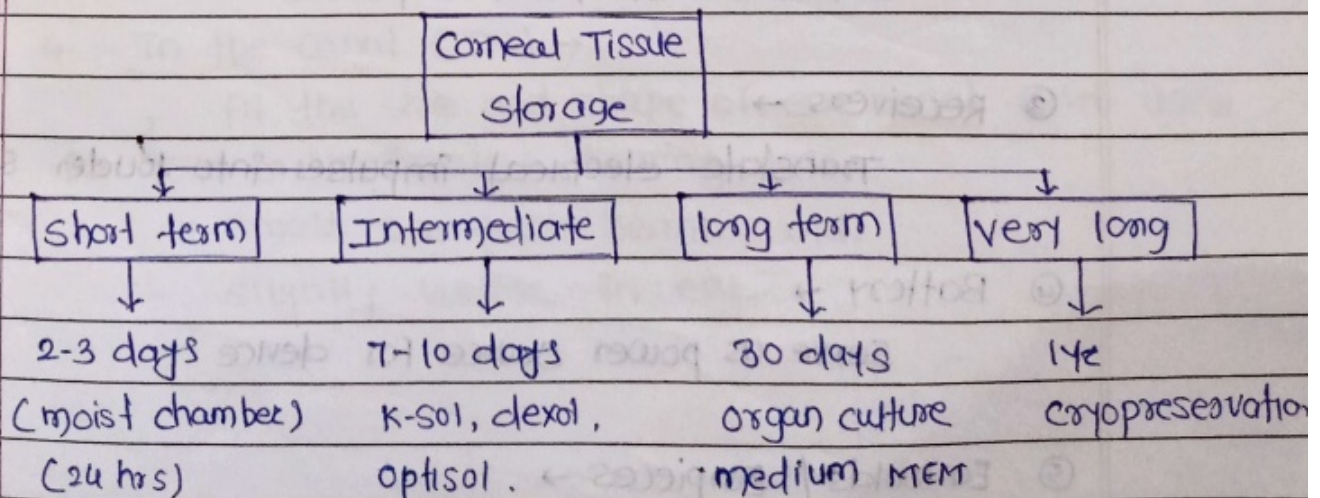
• Steps of Eye Donation :



• Objectives :

- To establish eye care facilities for every 5 lakh population
- To improve quality of service delivery
- To secure participation of civil society.
- collection of donor eyes
- process and storage donor cornea
- To promote public education relation system

• Storage of Donor Tissue :



Imp

Q. Hearing Aids

Ans. Introduction :

- small device placed in or around ear to improve hearing.

↳ electronic device

Definition :

It is an electronic, battery operated device that amplifies and changes sound to allow for the improved communication.

• Indication :

→ Hearing loss

• Component of Hearing Aids :

① Microphone →

receives sound and convert it into electrical impulses

② Amplifier →

Intensifies electrical impulses.

③ Receivers →

Translate electrical impulses into louder sound.

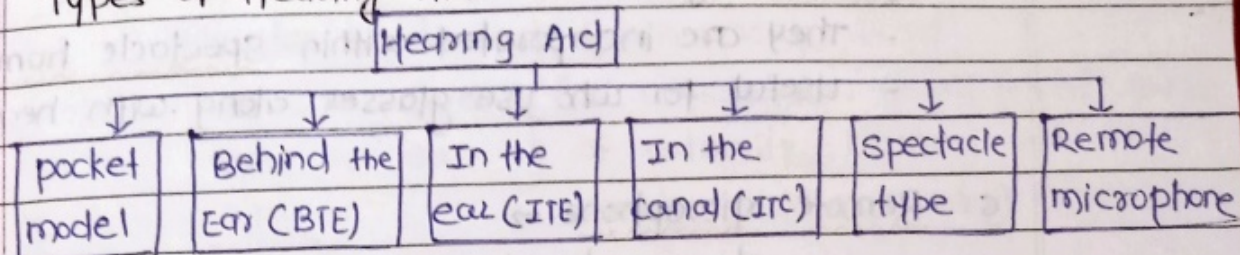
④ Battery →

Serve as power source for device

⑤ Earmolds / Earpieces →

direct flow of sound into ear. and enhance sound quality.

• Types of Hearing Aids:



1. pocket model →

- worn in pocket at chest level.
- cord transmit electrical imp output to receiver, which convert signal into sound.

2. Behind the Ear (BTE) →

- worn behind ear and connected to plastic earmold that fits inside outer ear.
- Sound travel from aid through earmold into ear.

3. In the Ear (ITE) →

- Fit completely in outer ear and used for mild to severe hearing loss.
- It can damaged by earwax, ear drainage.

4. In the canal (ITC) →

- fit the size and shape of ear canal and used for mild or moderately hearing loss.
- small one piece hearing aid.
- slightly visible in ear

5. Spectacle type →

- They are incorporated within spectacle frame
- useful for who use glasses along with hearing aid.

6. Remote microphone →

- combine advantage of BTE and ITE model
- virtually invisible.

• Care and Maintenance of Hearing Aid :

- prevent it from falling down
- don't spill liquid in hearing aid
- must fit well.
- cord should not be twisted or knotted
- protect it from dust
- remove battery from hearing aid when it is not in use
- receivers should not come in contact with water.

Disaster Management.

Date _____
Page _____

• Introduction :

Disaster is derived from greek word

Dus → Bad } (It comes from astological sense
Aste → star } of calamity, blamed on
position of planet.)

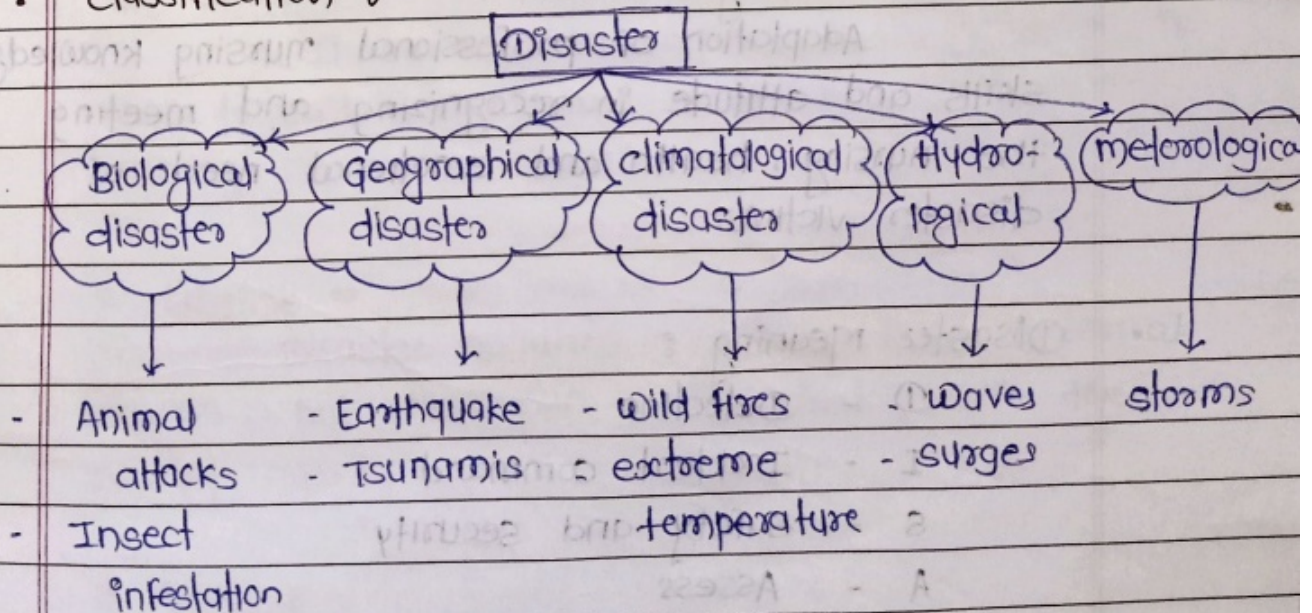
- disaster is sudden, calamitous event bringing great damage, loss, destruction to life and property

• Definition :

Any occurrence that causes damage, ecological disruption, loss of human life, deterioration of health and health services sufficient to warrant extraordinary response from outside affected area.

(WHO)

• classification :



Disaster

Natural

1. Metological disaster -

→ Flood

→ Tsunami

→ Snow storm

2. Topographical -

→ Earthquake

→ volcanic

3. Environmental disaster -

→ global warming

Man-made

1. Technological disaster →

→ Transport failure

→ fire

2. Industrial

→ chemical spills

→ radioactive spills

• Disaster Nursing Definition :

Adaptation of professional nursing knowledge, skills and attitude in recognizing and meeting the nursing, health and emotional need of disaster victims.

• Disaster Meaning :

D - Detection

I - Incident command

S - safety and security

A - Assess

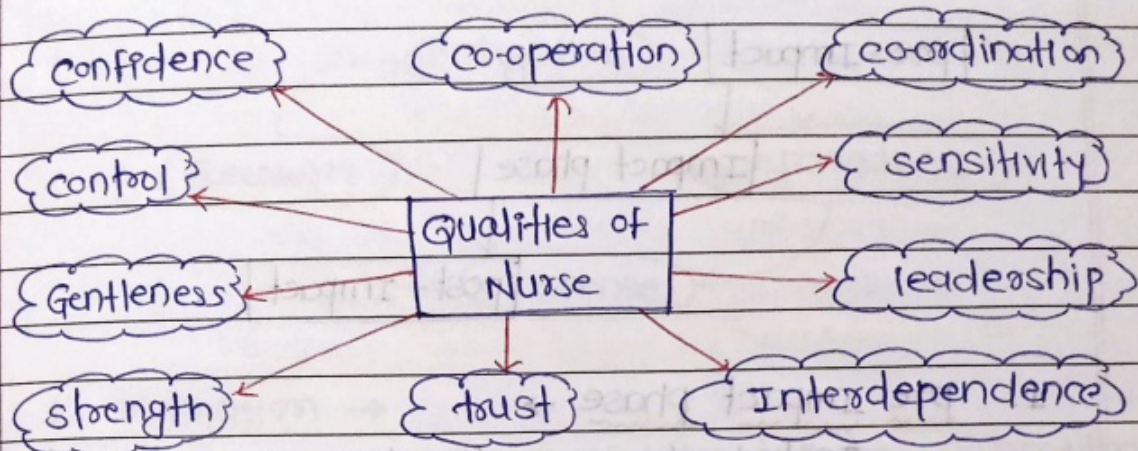
S - support

T - Triage and treatment

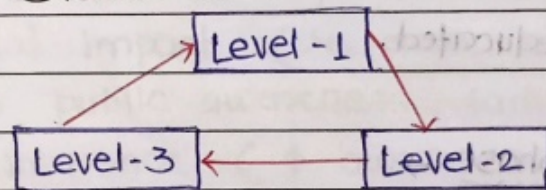
E - Evaluation

R - Recovery

Qualities of Nurse Working In Disaster :



Level of Disaster :



1. Level-1 →

If organization, agency or community is able to contain event and respond effectively utilizing its own resources.

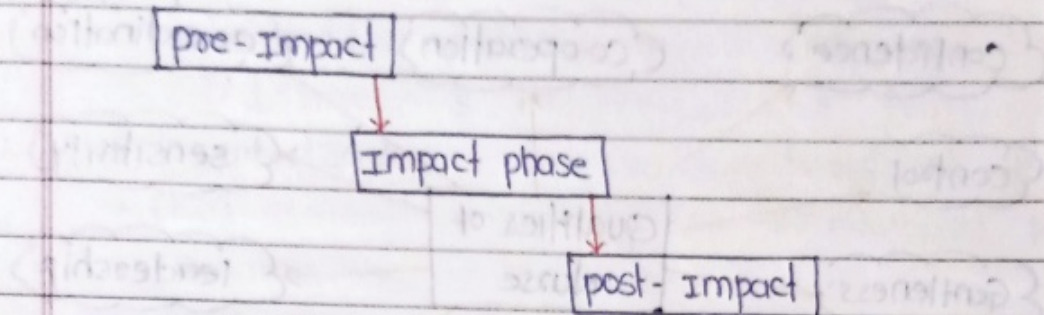
2. Level-2 →

Disaster requires assistance from external sources, but these can be obtained from the nearby agency.

3. Level-3 →

If disaster is of magnitude that exceeds capacity of local community or origin and requires assistance from state level or even federal asset.

• phases of disaster :



1. pre-impact phase →

- Initial phase of disaster, prior to actual occurrence
- emergency center are opened
- communication, radio, tv, community must be educated.

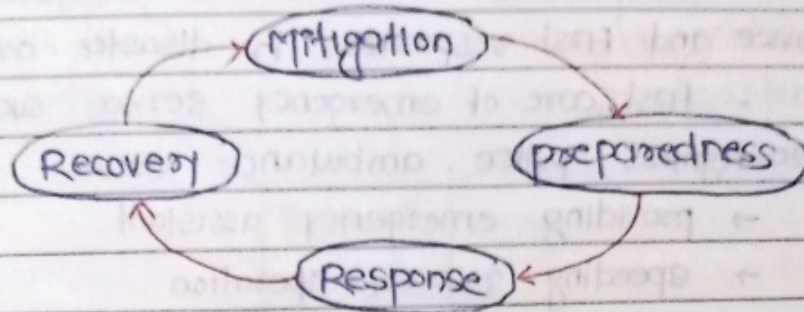
2. Impact phase →

- occurs at time of disaster
- continue until threat of destruction has passed
- emergency plan is in effect.
- physical and / physiological support.

3. post-impact phase →

- recovery begins during emergency phase
- end with return of normal community order and functioning.

• phases of Disaster Management :



1. Mitigation →

→ Reduces impact of disaster by supporting protection, prevention activities.

→ construction projects which reduce economic and social impact (i.e. dam, windbreak, terracing)

→ public awareness, family plan, different type of insurance (↑ awareness of hazards)

2. Preparedness →

→ planning, training, educational activities for things that can't be mitigated.

→ It measures ↓ minimum level possible, loss in human life, rehabilitation

→ planning, organizing, interaction with other organization and related agency

+ preparedness plans

+ emergency training

+ warning system

+ public education

3. Response →

It includes mobilization of necessary emergency service and first responders in disaster area

- first core of emergency service such as fire-fighters, police, ambulance crews.
- providing emergency assistance
- speeding recovery operation
- reduce probability of damage.

4. Recovery →

- long term aftermath of disaster
- restore affected area to previous state
- (e.g. lifelines, health and communication facility, counselling programs)
- reconstruction of vital activities.

The

• Principles of Disaster Nursing :

1. Prevent the disaster

- 1st prevention
- 2nd prevention
- 3rd prevention

2. minimize casualties

3. rescue the victims

4. first aid

5. evacuate

6. medical care

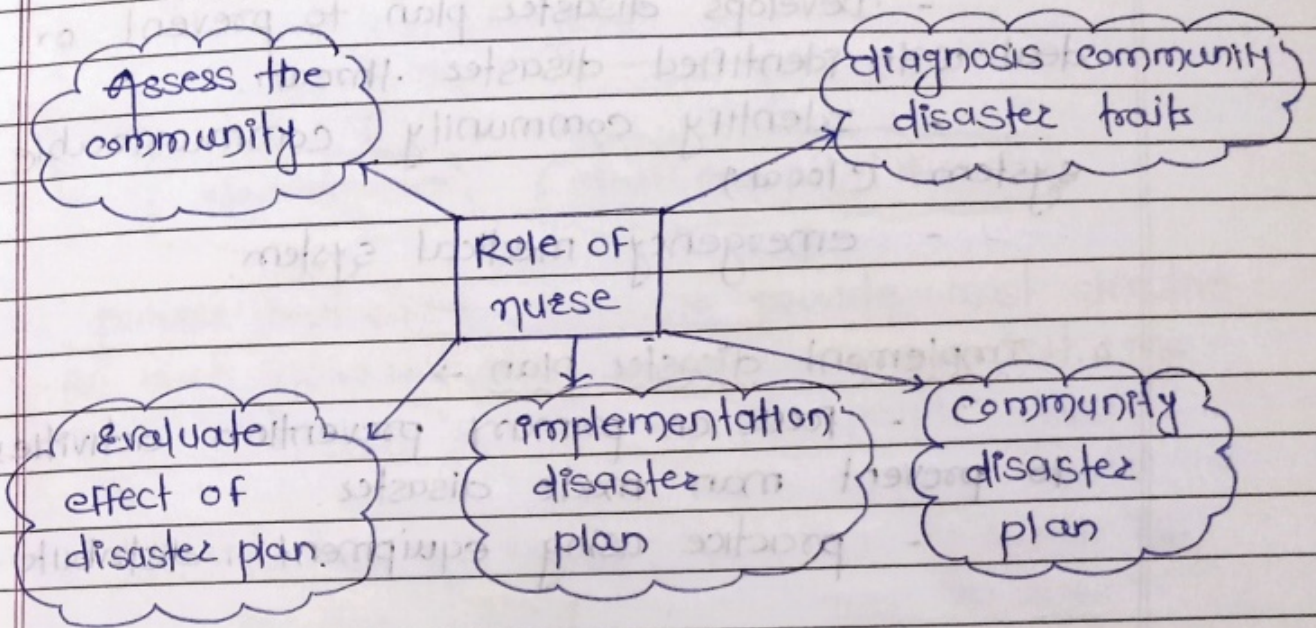
7. reconstruction

8. Triage

9. Individual responsible for their own safety

10. Planning should focus on large event

Nurse's role in disaster management :



Disaster Management Nurse's Role :-

1. Assess the community →
 - Is there current community disaster ^{plan} in place?
 - previous disaster experience
 - what are local agencies
 - what are local industry.
 - what personnel available for the disaster intervention.
2. Diagnose Community disaster traits →
determine actual and potential disaster threats (eg. toxic waste, explosion, road accidents, floods, earthquakes).

3. Community Disaster planning →

- Develops disaster plan to prevent or deal with identified disaster threats.

Identify community communicable system (local)

- emergency medical system.

4. Implement disaster plan →

- focus on primary prevention activities to prevent man made disaster.

- practice using equipment, distribute supply.

5. Evaluate effectiveness of disaster plan →

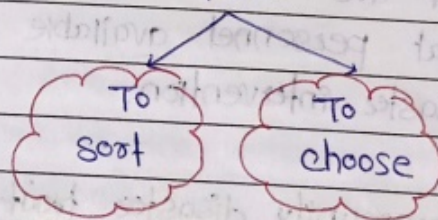
- Evaluate all aspects of disaster plan and practically drills for speed, gaps.
- evaluate disaster impact on community.

Imp.

Triage :

Triage is derived from French word

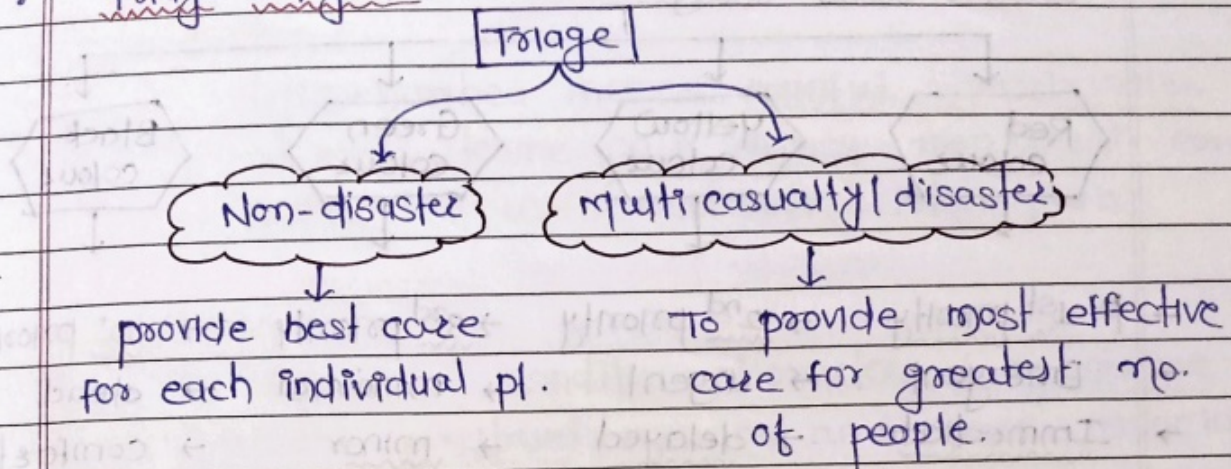
→ trier



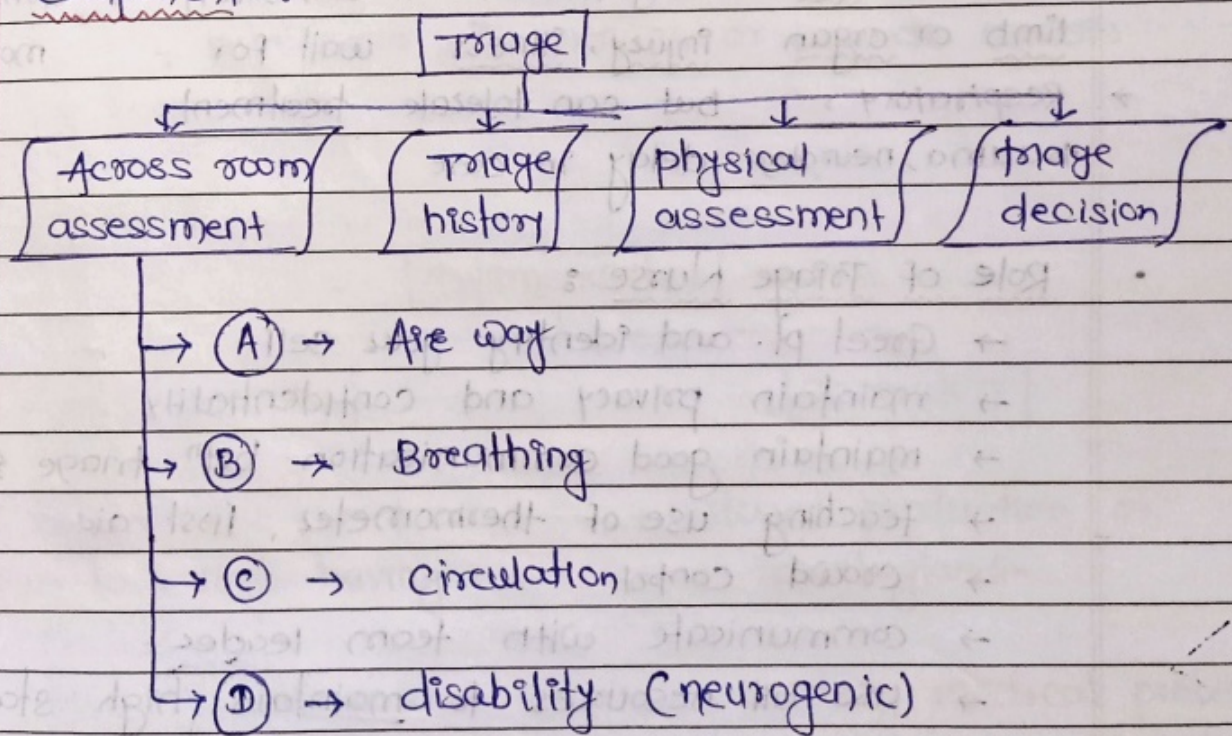
* Definition :-

process in which pt. classified according to type and urgency of their condition to get right pt. to right place at right time with right care provider.

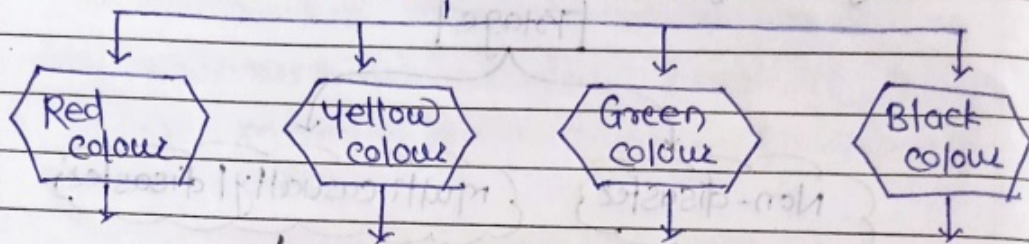
Triage Categories :



Component :



• Disaster triage categories :



- 1st priority
- Emergent
- Immediate treatment
- Threat to life, limb or organ
- Respiratory, trauma, neurological
- 2nd priority
- urgent
- delayed treatment
- significant injury, illness
- but can tolerate delay in care
- 3rd priority
- minimal
- minor treatment
- can safely wait for
- 4th priority
- dead
- comfort care
- don't move.

• Role of Triage Nurse :

- Greet pt. and identify your self
- maintain privacy and confidentiality
- maintain good communication betn triage & treat
- teaching use of thermometer, first aid.
- crowd control
- communicate with team leader
- use all resources to maintain high standard of care
- keep pt. family aware of delays
- transport client to treatment area.
- document assessment

Reproductive System.

Date _____
Page _____

Q. Dysmenorrhea

Ans Introduction:

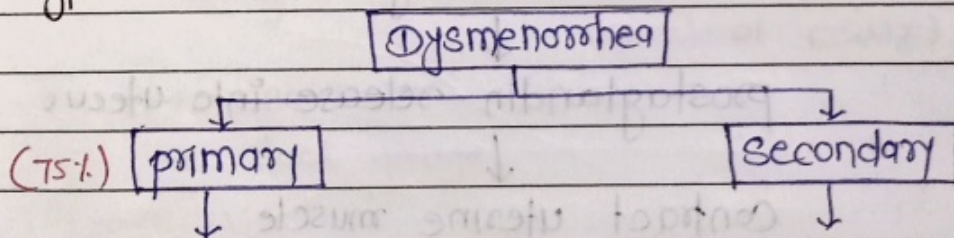
- Dysmenorrhea means painful menstruation
- severe uterine pain during menstrual condⁿ.
- associated with musculoskeletal pain.

• Definition:

menstrual condition characterized by severe and frequent menstrual cramps and pain associated with menstruation.

- pain occurs with menses or precede menses by 1 to 3 days.

• Types:

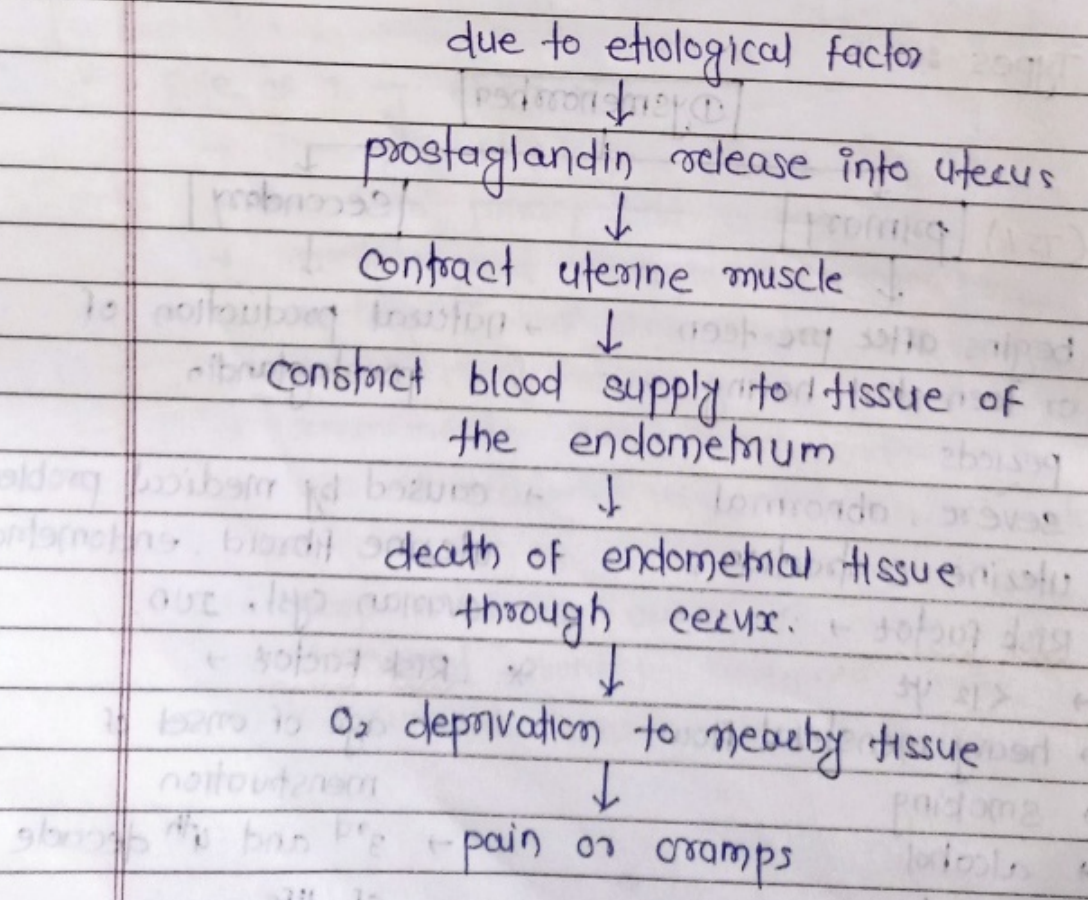


- begins after pre-teen or teen start having regular periods.
- natural production of prostaglandin.
- severe, abnormal uterine contraction.
- caused by medical problem: uterine fibroid, endometriosis, ovarian cyst, IUD.
- * Risk factor →
 - < 12 yr
 - heavy menstrual flow
 - smoking
 - alcohol
 - obesity
- * Risk Factor →
 - age of onset of menstruation
 - 3rd and 4th decade of life.

• Causes :

- family history
- obesity
- smoking
- alcohol
- medical problems
- age
- after prostaglandin level

• pathophysiology :



• Clinical manifestation :

- pain in lower abdomen
- nausea
- vomiting
- diarrhea
- constipation
- headache
- dizziness
- hypersensitive to sound, light, touch.

• Diagnostic Evaluation :

- ultrasound
- MRI
- Laparoscopy (detect abnormal growth)
- hysteroctomy (visual examination of canal of cervix)
- CBC
- stool gauge.

• Medical Management :

- NSAIDS
- hysteroctomy
- antibiotic
- nutritional supplement
- behaviour therapy
- acupuncture
- accupressure
- TENS

Q. Amenorrhea.

Ans- Introduction :

Amenorrhea most commonly seen in the pregnancy and lactation

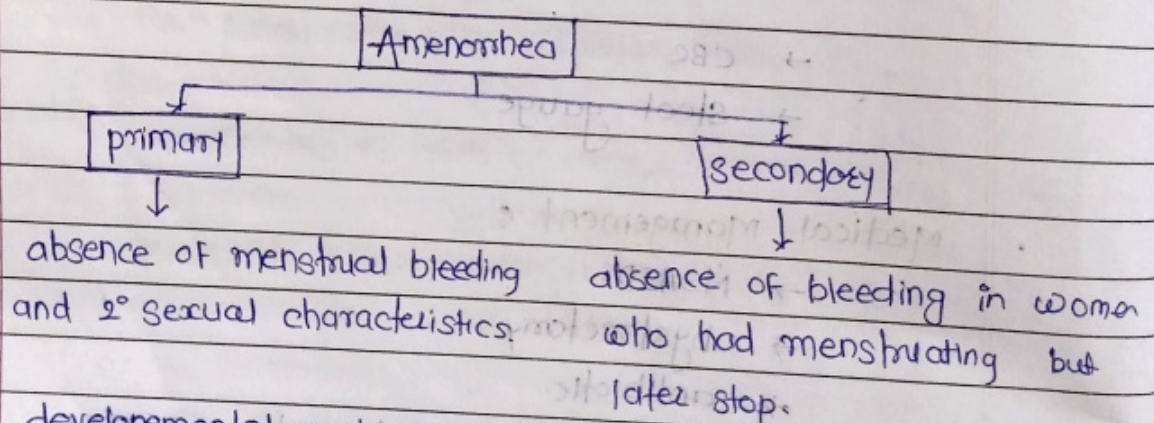
- amenorrhea is symptom, not a disease and it has variety of causes.

• Definition :

Absence of menstrual periods, either on permanent or temporary basis of reproductive age.

- absence of menstruation during the reproductive years of woman's life.

• Classification :



→ developmental problem

→ congenital absence of uterus.

→ failure of ovary to receive egg cells.

→ delay pubertal development

→ disturbance in hypothalamus
→ intrauterine scar
→ formation.

• Etiology :

1. Hypothalamic causes →
 - teratoma
 - nutrition deficiency
 - low body weight
 - sarcoidosis (formⁿ of nodule diff^{nt} part of body)

2. pituitary causes →

- pituitary radiation
- prolactinemia
- tumors

3. ovarian causes →

- anovulation
- turner syndrome
- polycystic ovarian syndrome
- chemotherapy

• Clinical Manifestation :

- Tension or anxiety
- depressed mood
- irritability
- mood swing
- Food craving
- social withdrawal
- headache
- abdominal bloating
- abdominal cramp
- Constipation
- changes in libido
- poor concⁿ.

• **Diagnostic Evaluation :**

- Menstrual diary
- Blood test
- USG of pelvis
- MRI
- thyroid function test
- hysteroscopy

• **Medical Management :**

- diuretics
- analgesic (Ibuprofen)
- oral contraceptive
- hormone replacement therapy
- antidepressant
- ovarian suppressant

• **Nursing Management :**

- Aerobic exercise
- avoid salt before menstrual periods
- reduce caffeine intake
- reduce intake of refined sugar
- Increased fiber intake
- adequate rest and sleep
- nutrition supplement

• **Prevention :**

- Lifestyle changes
- vitamin therapy

Q. Pelvic Inflammatory Disorder

Ans. Introduction:

Inflammation of upper genital tract due to infection in women.

→ caused by bacterial, viral, fungal or parasitic infection

• Definition:

Inflammatory disorder in which refers to inflammation of ovaries, uterus, fallopian tubes with reproductive organs.

① oophoritis → inflammation of ovary

② endometritis → inflammation of uterus

③ salpingitis → inflammation of fallopian tube

• Causes and Risk factors:

→ Bacteria (gonorrhea, chlamydia)

→ virus (HSV)

→ organisms (gardnerella vaginalis, trichomonas, haemophilus influenzae.)

→ < under age 25.

→ teenage, young women

→ multiple sexual partner

→ IUD

→ douche

→ inserting catheter

• **pathophysiology :**

due to etiological factor



bacteria enters into cervix



pass through cervical canal



colonise endocervix, move upward



spread through pelvic cavity.



inflammation

• **clinical manifestation :**

→ bleeding betⁿ periods or after sex.

→ anorexia

→ pain during sexual intercourse

→ fatigue

→ nausea, vomiting

→ heavy vaginal discharge

→ low back pain.

→ painful urination

• **Diagnostic Evaluation :**

→ difficult to diagnose

→ history, physical examination

→ Blood test

→ ESR test

→ sonogram

→ laparoscopy

→ endometrial biopsy

- Medical Management :
 - Antibiotics
 - use of condom and diaphragm
- Surgical management :
 - Laparoscopy (damaged or blocked tube repair)
 - salpingectomy (removal of fallopian tubes)
- Nursing Management :
 - semi-fowler position
 - administer analgesic medication
 - apply heat to abdomen.
 - encourage fluid intake or rest
 - monitor blood loss
 - check vital signs
 - encourage good dietary intake
 - sex education
 - health educⁿ.
- Complication : prevention :
 - encourage to getting regular gynecological test
 - avoid septic abortion
 - encourage to use latex made condom
 - encourage pt. avoid douch
 - if he infected maintain long term relationship

Q. Uterine fibroid.

Ans Introduction:

uterine fibroid also called as uterine leiomyoma
uterine myomas.

- Made up of fibrous connective tissue.
- most common in growth women childbearing age.

• Definition:

uterine fibroid is abnormal growth or benign tumors that originate in tissue of uterus.

- develops in muscular wall of uterus.

• Etiology:

→ Genetic abnormalities

→ alteration in growth factors

→ abnormalities in blood vessels

→ Injury

→ hormonal stimulation

→ Age (50)

→ women: parity of pregnancies

→ obesity

→ hereditary

→ never having given birth to child

→ onset of menstrual period

• Clinical Manifestation :

- asymptomatic
- abdominal / pelvic pain
- infertility
- feeling of fullness
- low back pain
- bleeding between periods
- painful periods
- pain during intercourse
- pregnancy complication

• Diagnostic Evaluation :

- pelvic examination
- transvaginal and pelvic ultrasound
- MRI
- CT scan
- endometrial biopsy
- hysteroscopy
- hysterosalpingogram
- CBC test

• Medical Management :

- NSAIDS
- antiinflammatory drugs
- Gonadotropin releasing hormone agonist
- antiprogestin drug
- antihormone drug

- Surgical management :
 - Hysterectomy
 - myomectomy
 - myolysis (uterine fibroid remove without damage tissue)
 - endometrial ablation. (destroying lining of uterus)
 - uterine artery embolization (cut off blood flow to fibroids)

- Nursing management:

Q. premenstrual Syndrome

Ans. Introduction :

It is premenstrual tension is combination of physical, psychological, emotional, mood disturbance that occur woman's ovulation

• Definition :

cluster of physical, behavioural, emotional symptoms that are usually related to leuteal phase of menstrual cycle.

- affect 85% of menstruating women
- exact cause unknown
- leuteal phase

• Etiology :

- cyclic changes in hormone
- chemical changes in brain
- depression
- poor eating habit
- genetic factors
- increasing age
- tobacco use
- stress
- family history

• pathophysiology :

due to etiological factors



luteal phase



lining of uterus to grow thick or spongy.



if egg meet sperm, it may implant lining of uterus and grow



progesterone level rises in body
(estrogen level drop)



premenstrual syndrome

• Clinical Manifestation :

- Tension or anxiety
- depressed mood
- irritability
- unhappiness
- mood swings
- appetite
- poor concentration
- muscle pain
- abdominal cramps
- changes in libido

- Diagnostic Evaluation :
 - No any laboratory test are performed
- Medical management :
 - diuretics
 - analgesics
 - oral contraceptive
 - ovarian suppressant
 - antidepressant
- Nursing management :
 - Aerobic exercise
 - reduce caffeine intake
 - avoid smoking
 - reduce alcohol intake
 - adequate rest or sleep
 - vitamin therapy

Q. Method of Termination of pregnancy.

Ans. Introduction:

Abortion is termination of pregnancy by the removal or expulsion from uterus of fetus or embryo resulting death.

- It can occur spontaneously, induced.

• Definition:

Expulsion or extraction from its mother of an embryo weighing 500 gm or less, not capable for independent survival.

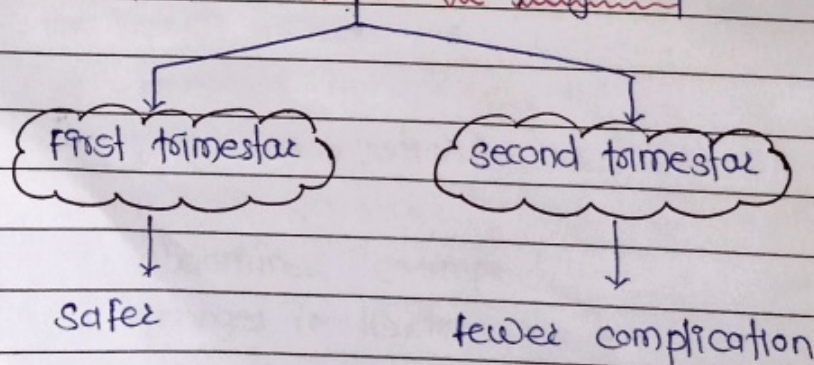
→ miscarriage.

• Method of Termination of pregnancy:

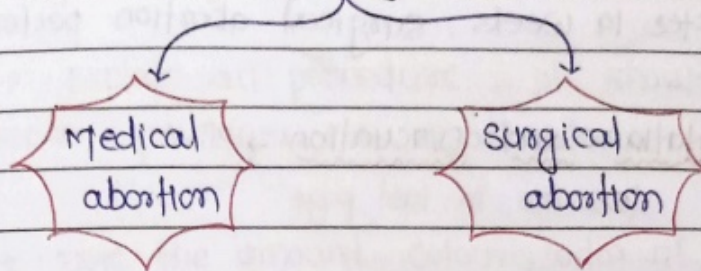
Medical termination of pregnancy is legally permitted upto 20 week of gestation.

- can be performed either medically or surgically.

- depend on duration of pregnancy

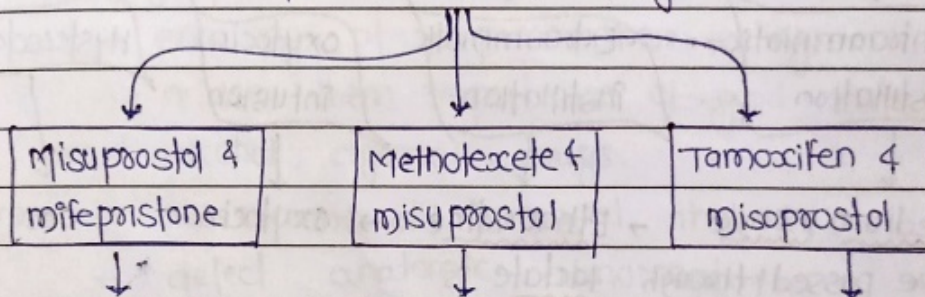


1. First Trimester pregnancy →



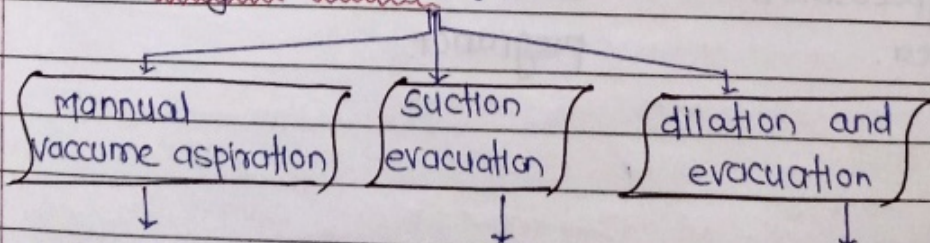
1. Medical Abortion :->

- medication taken to induce it.
- pharmaceutical drugs.



- Safe method for early pregnancy upto 9 weeks of gestation.
- highly effect in vagina.
- completely abortion.
- methotrexate (50mg)
- misoprostol (800mg)
- 4 days
- dilation of cervical canal.
- 7 days.

2. Surgical Abortion :->

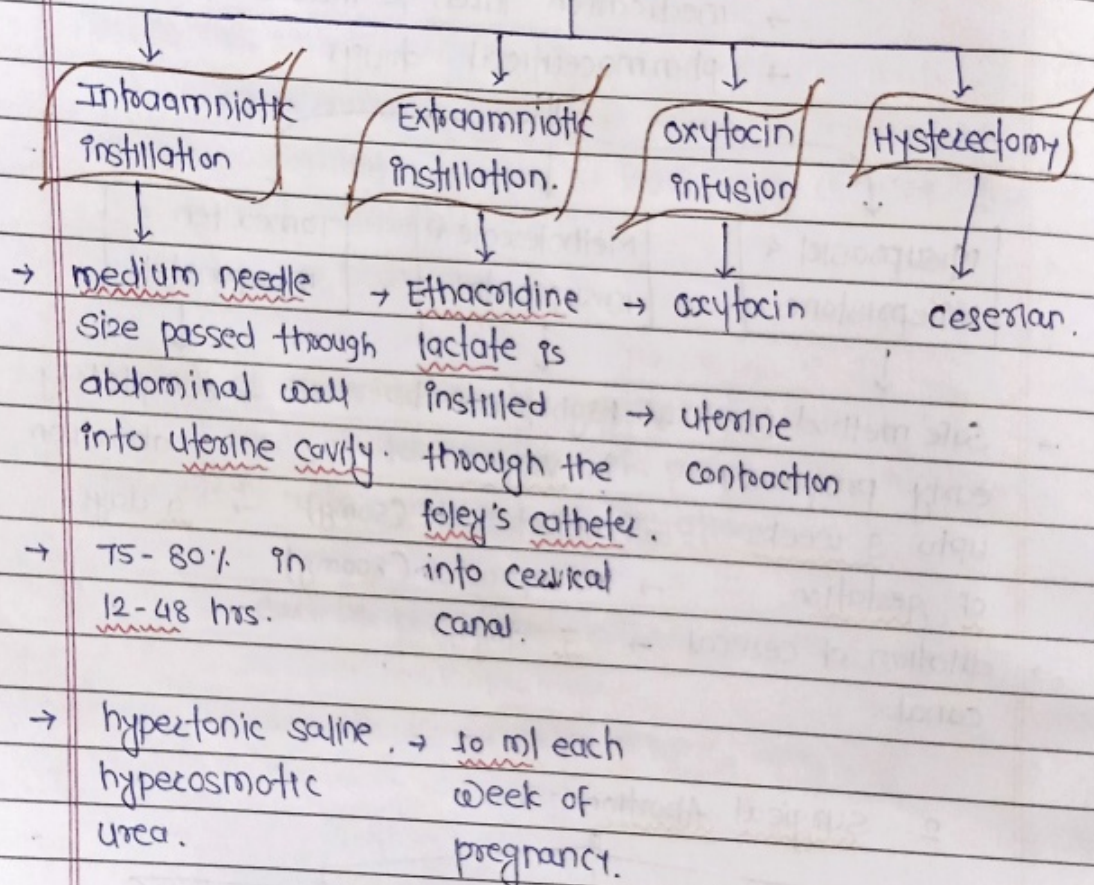


- quick method
- emptying pregnant uterus upto 12 weeks
- remove fetus and embryo.
- attached suction machine.
- dilation of cervix.
- used in late 1st trimester, 2nd trimester
- dilation of cervical canal

2. Second Trimester of pregnancy →
After 14 weeks, surgical abortion performed.

1. Dilatation and Evacuation →
describe in last page.

2. Intrauterine instillation of hypertonic saline infusion →



• Nursing Management :

- Explain all procedure , pt. should not have bathroom privileges coz expel uterine content without know
- note the amount , colour , odor of vaginal bleeding.
- administer oxytocin , analgesic
- emotional support , counselling during the grieving process.
- encourage pt. express their feelings.
- advise them importance of good nutrition and avoid alcohol , cigaret , drugs.
- assessment of hormonal therapy.
- detect anatomic abnormality
- genetic counselling.

LAQ

Q. Breast Cancer

Ans. Introduction :

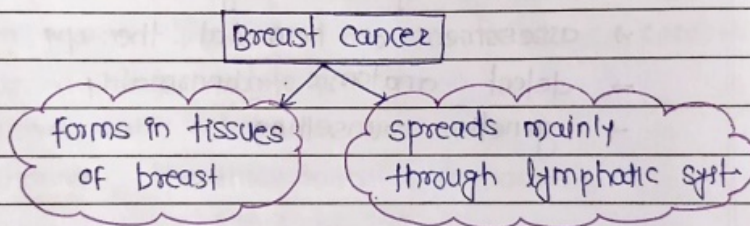
Cancer is abnormal, uncontrollable, continuous growth of cells lead to formation of tumor.

- Second most common malignant cancer.

• Definition :

Breast cancer is most common malignant condition of breast.

grow harmfully or uncontrollably

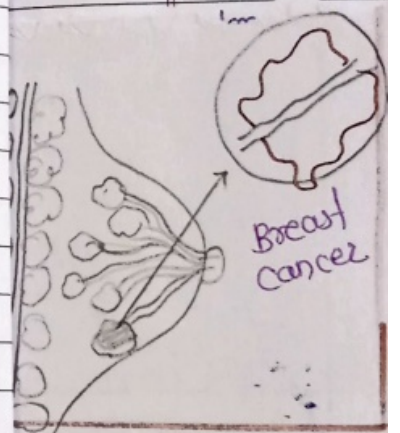


• Causes and risk factors :

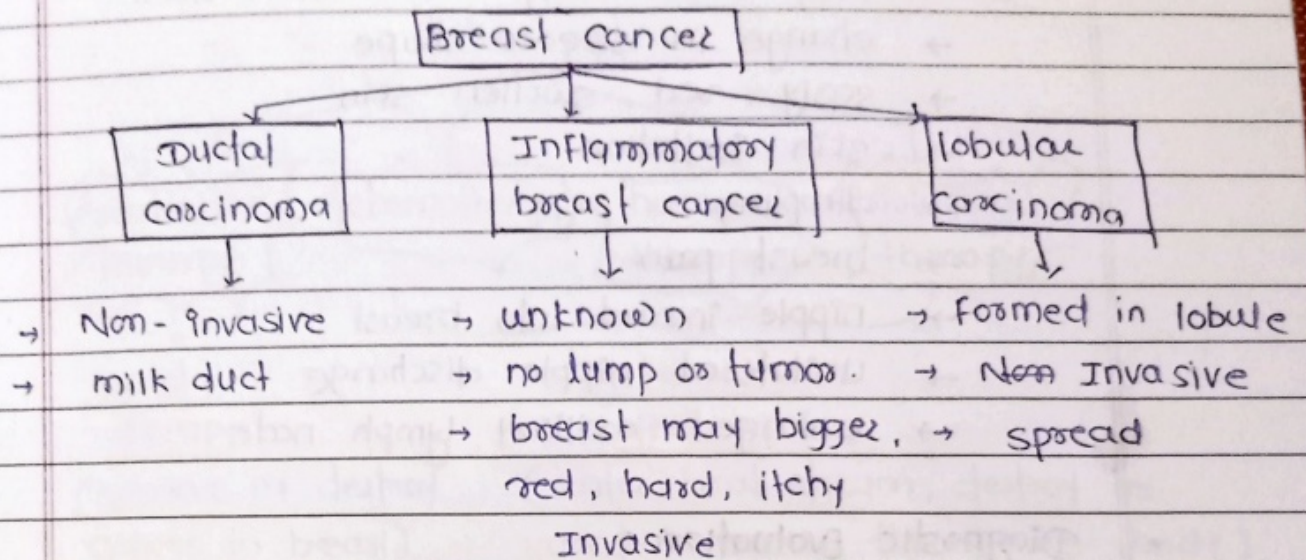
- Hormonal factors
(cells contact with estrogen)
- gene mutation
- starting menopause
- having no children
- previous history of breast cancer
- not breastfeeding
- birth control pills.
- overweight
- alcohol drink
- lack of exercise

• Types of

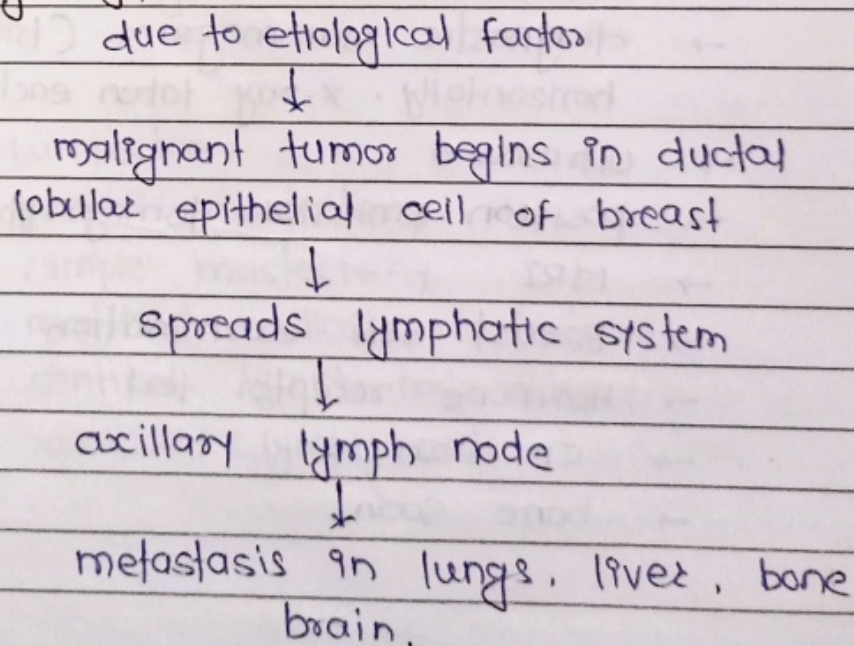
Ductal
carcinoma



• Types of Breast cancer :



• pathophysiology :



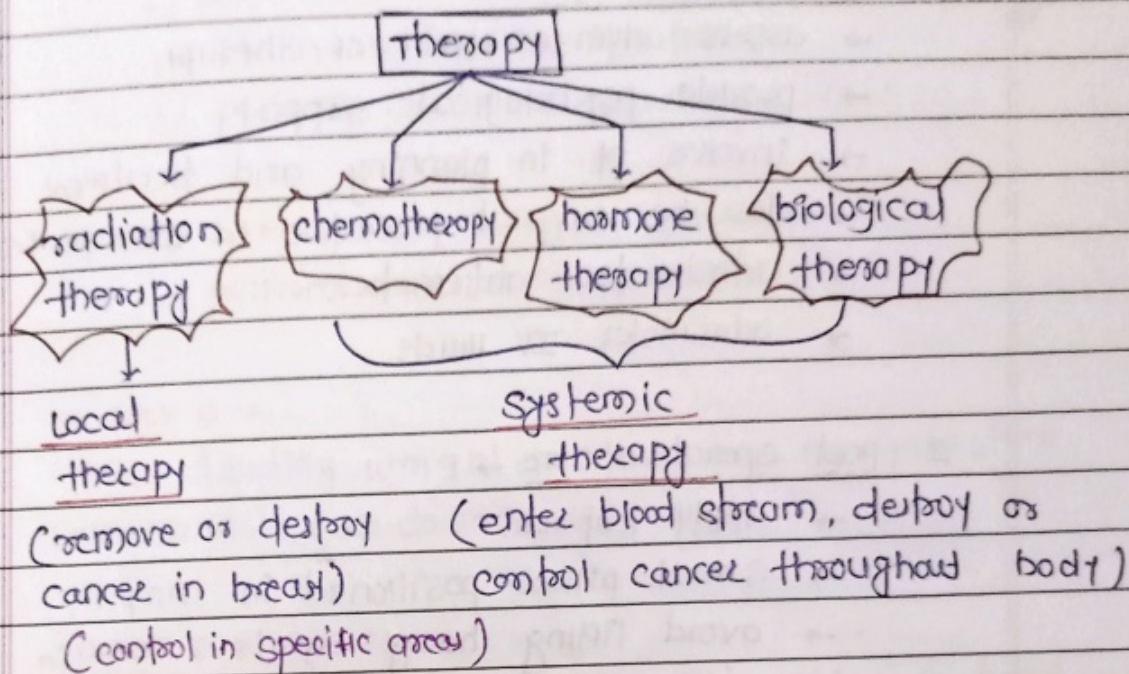
• Clinical Manifestation:

- lump or thickening in underarm area
- change in size or shape
- scaly, red, swollen skin
- skin irritation
- dimpling
- breast pain
- nipple inward into breast
- unilateral nipple discharge
- enlarged axillary lymph node

• Diagnostic Evaluation:

- History collection
- physical examination
- biopsy
- diagnostic mammogram (breast compressed horizontally, x-ray taken each position)
- ultrasound
- positron emission tomography (PET scan)
- MRI
- Breast self examination
- Hormone receptor test
- CT scan
- bone scan

• Management :



• Nursing Management :

Surgical

- Lumpectomy
- partial mastectomy
- simple mastectomy
- modified radical mastectomy
- sentinel lymph node biopsy
- axillary lymph node dissection

• Nursing Management :

1. pre-operative care →

- assess adverse effect of therapy.
- provide psychological support
- involve pt. in planning and treatment
- describe surgical procedure to alleviate fear
- administer antiemetics.
- administer IV fluids.

2. post-operative care →

- apply icepack.
- small pillow positioned in armpit.
- avoid lifting heavy objects, exercise
- administer IV fluid.
- ↑ fluid intake
- encourage pt. about post mastectomy exerci.
- teach pt. about importance of handwashing.
- encourage pt. to discuss her thought
- health education
- teach pt. dietary and lifestyle changes

• post mastectomy Exercise :

mastectomy is surgical procedure that removes one or more breast

- It release muscular tension
- preventing scar tissue development
- restoring strength and flexibility of joint and muscle.

1. Step-1 →

- perform shoulder release exercises.
- sit in comfortable position.
- perform clockwise shoulder circle.

2. Step-2 →

- perform wall climbing exercise.

3. Step-3 →

standing upright position, holding yardstick both hands. (up-down, left-right)

4. Step-4 →

perform arm extension (straighten or bend arms)

5. Step-5 →

Q. Female Infertility.

Ans. Introduction :

It is social and medical problem affecting couples world wide.

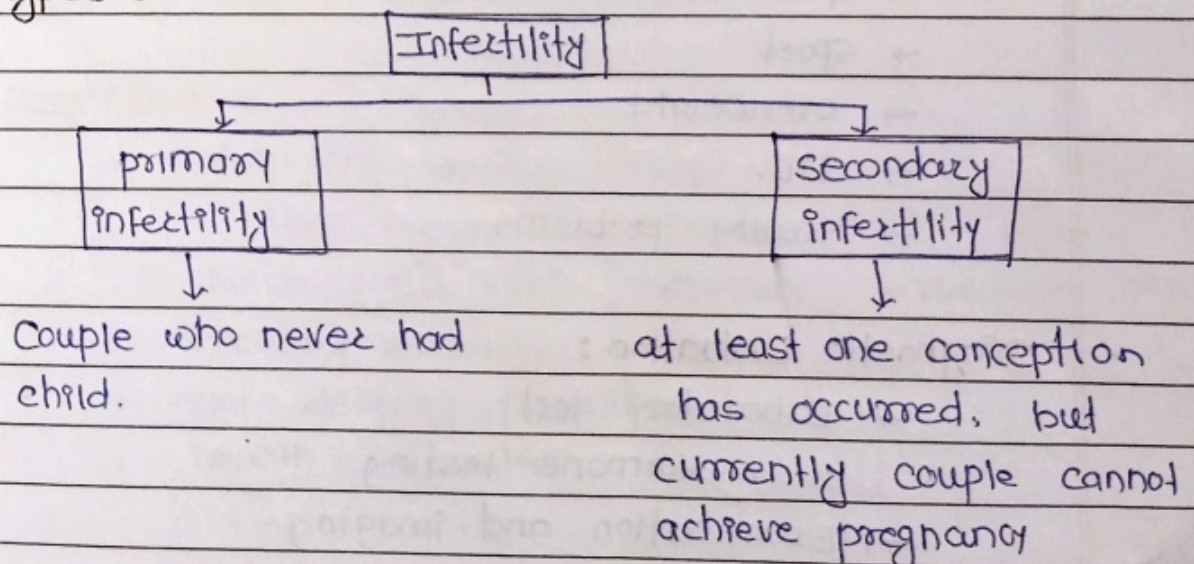
- 10 % couple are infertile
- unexplained infertility constitute 10% of cases

• Definition :

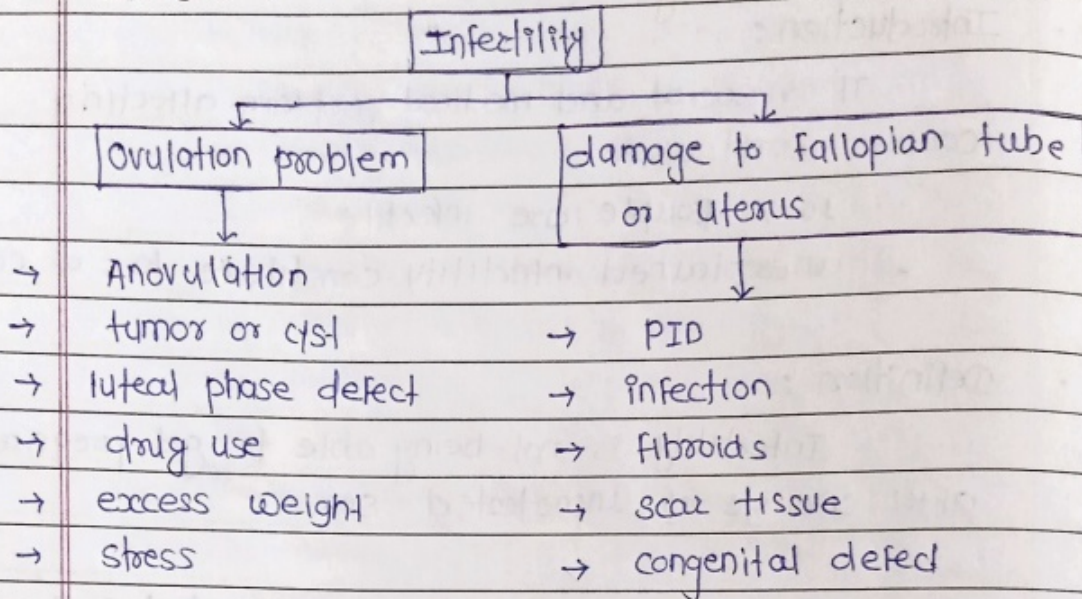
Infertility is not being able to get pregnant after one yr of unprotected sex

- Women who are able to get pregnant but then have repeat miscarriage also called infertile.
- It affects 10-15% of reproductive aged couples

• Types :



• Causes :



• Risk factors :

- Age
- stress
- poor diet
- sport
- overweight
- STDs.
- Healthy problems

• Diagnostic Evaluation :

- Laboratory test
 - Hormone testing
- Examination and imaging
 - endometrial biopsy.
 - hysterosalpingography
 - laparoscopy
 - x-ray.

• Medical Management :

- clomiphene citrate (clomid)
- Human menopausal gonadotropin
 - reponex
 - pergonol
- FSH (Gonal-F)
- GnRH analog
- melphosmin.
- Bromocryptine.

• Surgical Management :

- Tissue removal (remove endometrial tissue)
- Tubal reversal surgery
- Intrauterine insemination
- In vitro fertilization
- zygote IntraFallopian transfer

• prevention :

- maintaining healthy lifestyle
well balanced, nutritious diet, plenty
of fresh fruits and vegetables. maintain weight
- Treating existing diseases
- not delaying parenthood
- health education

Q. Toxic Shock Syndrome

Ans - Introduction :

Different ~~toxi~~ bacterial toxin may cause the toxic shock syndrome.

- The toxin produced by bacteria is absorbed into blood stream causes TSS.

- Fatality rate is 15%.

• Definition :

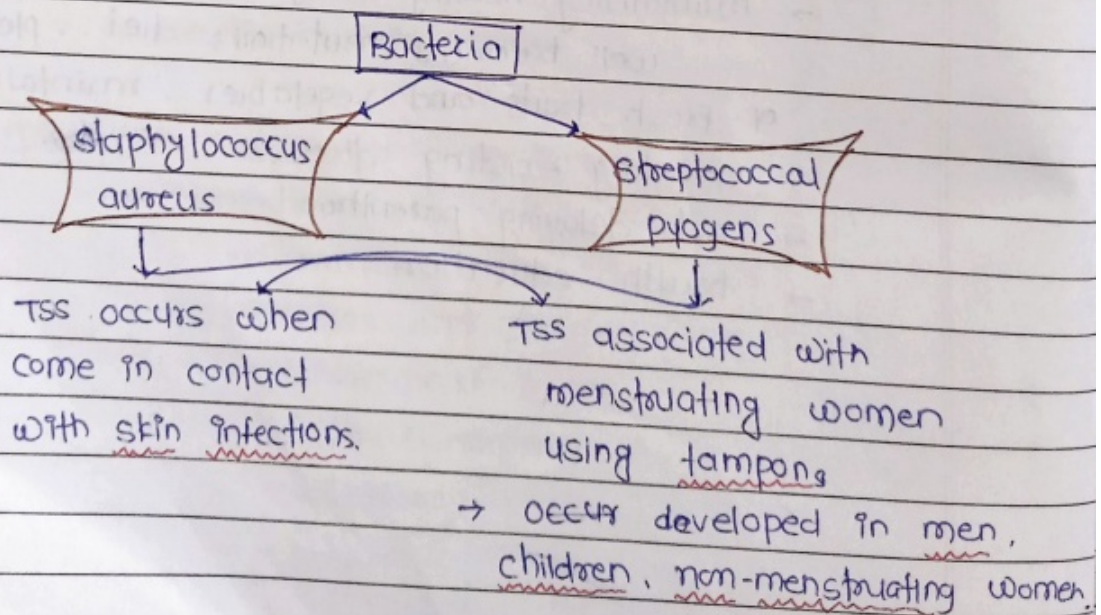
It is toxin mediated acute life threatening illness, usually precipitated by infection either by streptococcus or staphylococcus.

- medical emergency require prompt care.

• Causes :

→ Bacteria (Staphylococcus aureus)

→ Streptococcus pyogenes



• Sources of Infection :

- Vagina
- nose
- childbirth
- skin wound

• pathophysiology :

due to etiological factor



colonization or infection of bacteria



toxin absorbs systematically



production of cell mediator chemical



TSS

• Clinical manifestation :

- rapid onset of specific symptoms
- High fever (102° or more)
- abdominal pain
- nausea and vomiting
- low blood pressure
- malaise
- skin rash
- muscle ache
- confusion
- headache
- seizure
- organ failure

• Diagnostic Evaluation :

No specific test can diagnose .

- History
- physical examination
- blood culture
- vaginal culture
- RFT
- LFT
- CT scan

• Medical Management :

- Antibiotics
- cefalosporin , oxacillin , penicillin , vancomycin
- O₂ therapy
- IV fluid

• Nursing Management :

- Assess the history
 - use of tampon
 - recent surgery
 - use of contraceptive device
 - past history of TSS
 - child birth.
- administer medication
- provide oxygen
- administer IV fluid.
- psychological support

Q. Breast Self Examination

Ans. Introduction :

Breast self examination can be taught to performed after menses (day 5 to 7)

- BSE includes inspection and palpation of breast in standing or lying position

• Definition :

Screening method used in attempt to detect early breast cancer.

- method involve women herself looking at feeling each breast for lump, swelling.

• purposes :

→ Help to increase breast awareness

→ Help to early detection of breast cancer

• steps :

1. step-1 →

→ stand before mirror with straight shoulder and arms on your hips.

→ Inspect both breast such as

- dimpling, puckering, bulging skin
- inverted nipple
- redness, rash, swelling

2. step-2 →

Now, raise your arms and look for some changes

→ up and down movement

3. step-3 →

While you are at mirror, look for any signs of fluid coming out of one or both nipple.

4. step-4 →

feel your breast while lying down, using your right hand to feel your left breast and vice versa.

→ use finger pads of your hand, keeping the fingers flat and together.

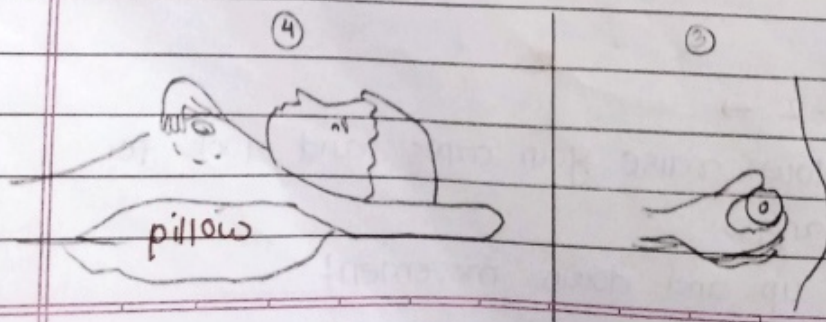
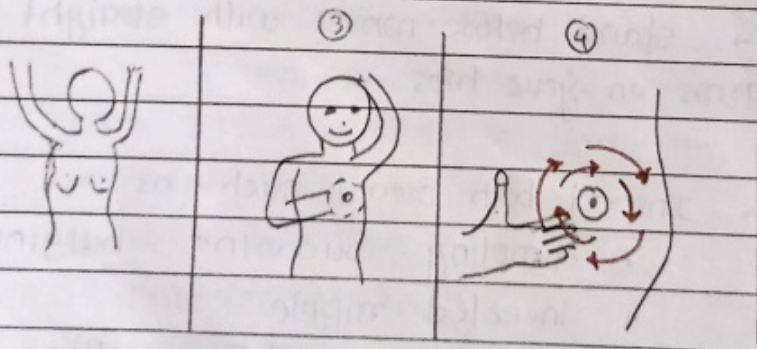
→ use circular motion.

→ cover entire breast from top to bottom.

5. step-5 →

Finally feel your breast while standing or sitting.

- this stage ^{take} place in shower.



Burn Management

• Introduction:

Burn is type of injury to skin or other tissue caused by heat, cold, electricity, radiation.

- Burn are common in serious childhood or adulthood injury.

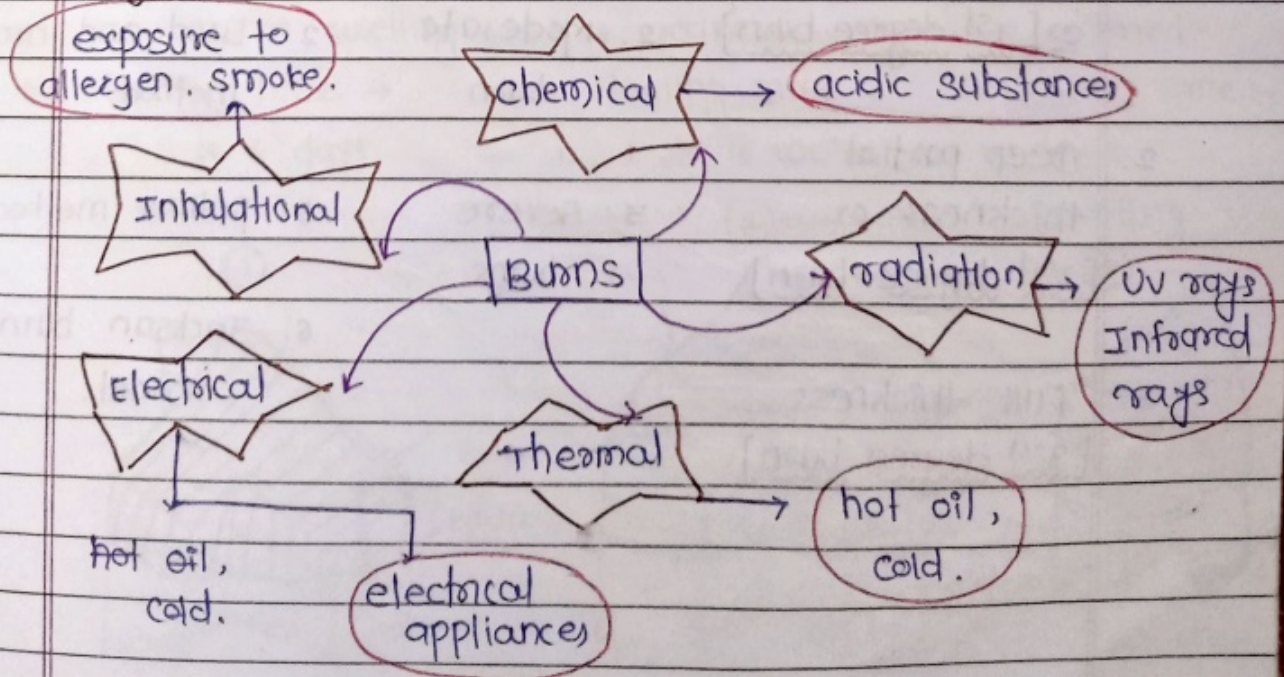
• Definition:

Burn is injury that results from direct contact or exposure to any thermal, chemical, electric source.

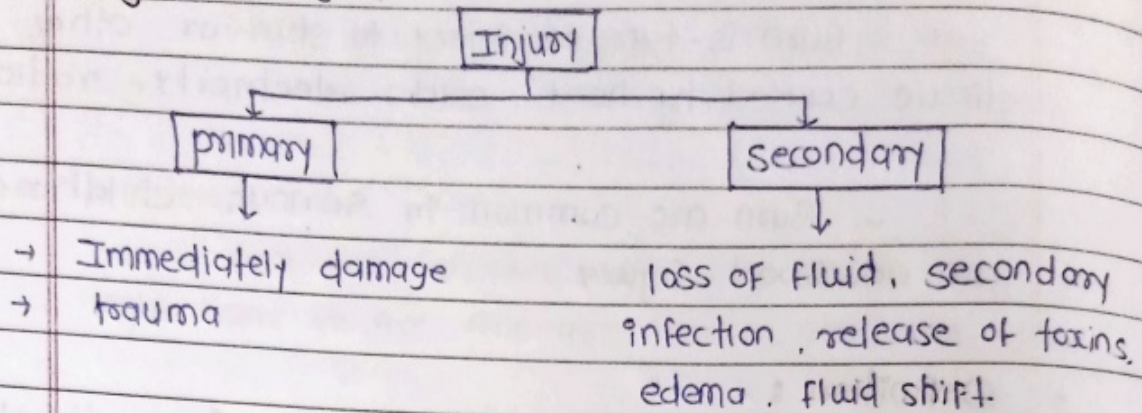
- Type of injury to skin or tissue caused by heat, cold.

- coagulative destruction of surface layers of body.

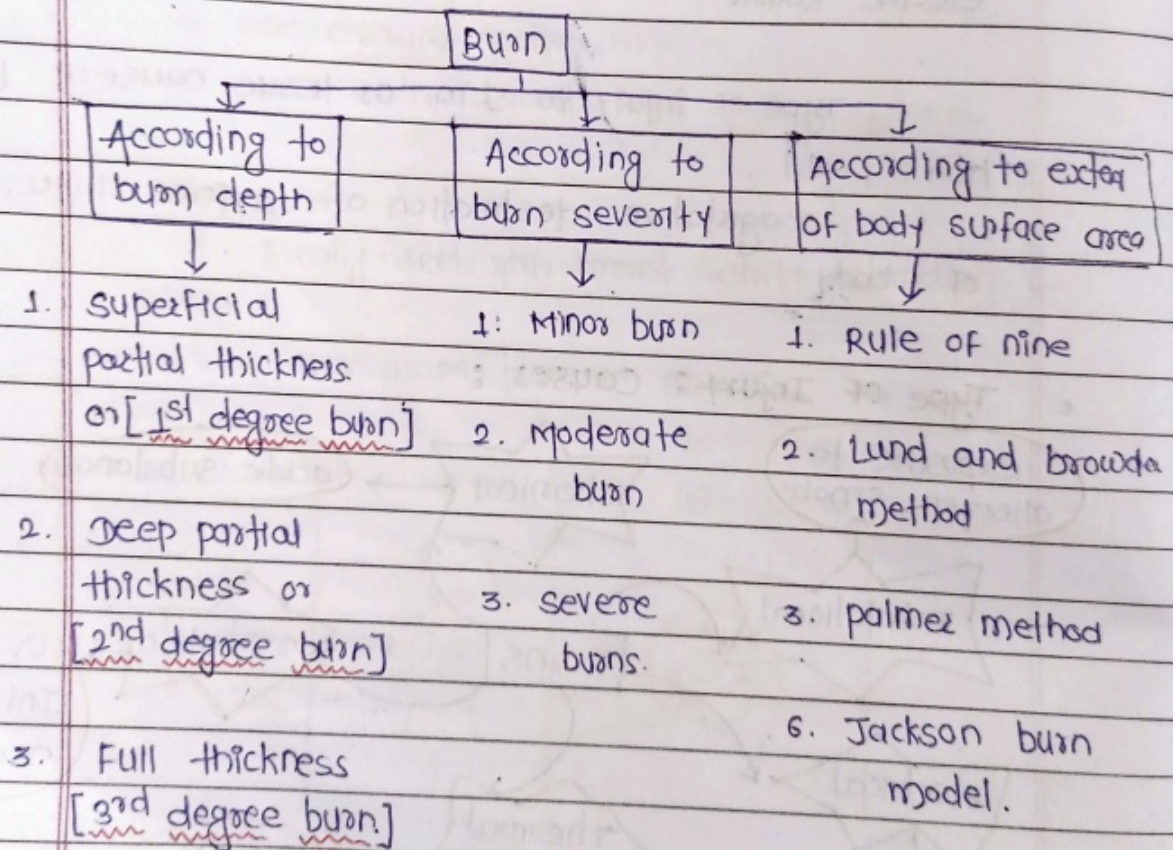
• Type of Injury: Causes:



Types of Injury :



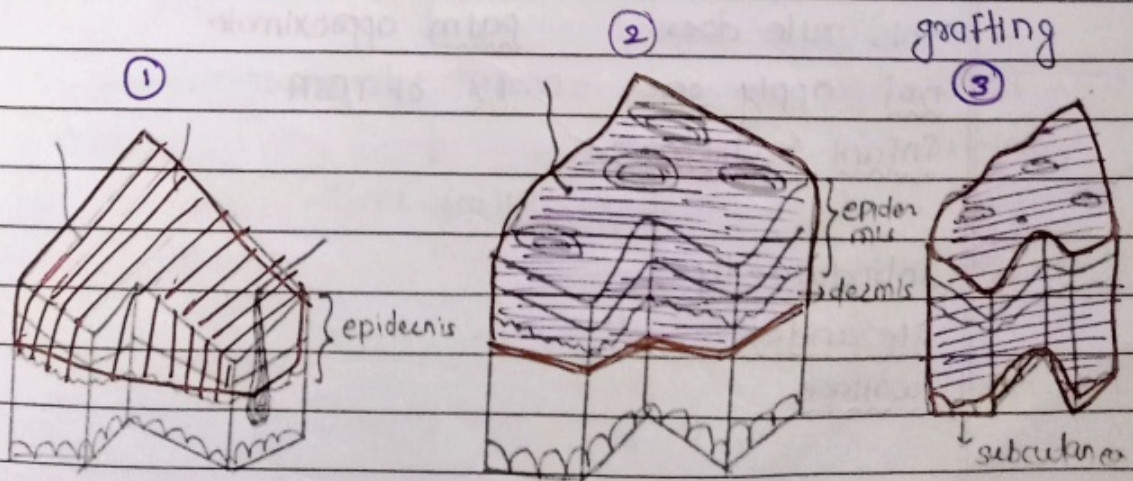
Top! Classification of Burns :



* According to burn depth :-

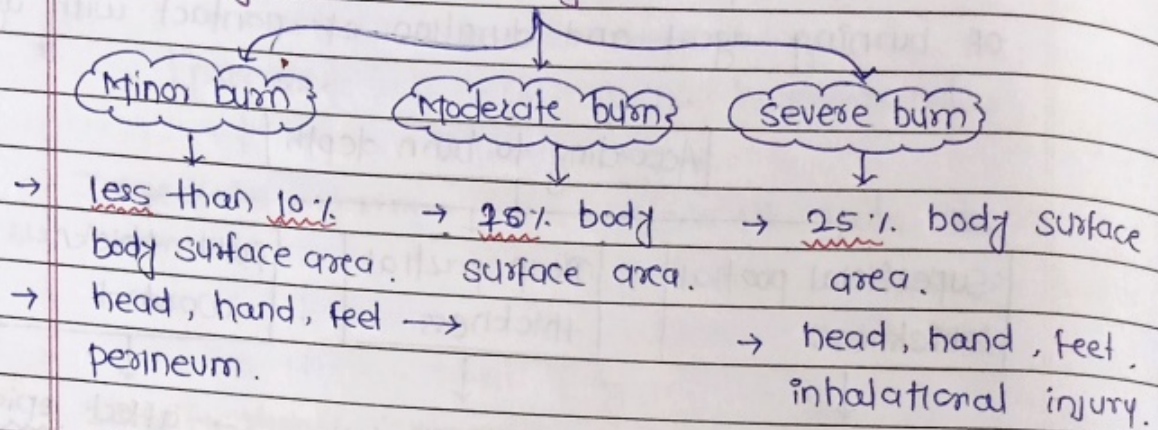
The depth of injury depends on temperature of burning agent and duration of contact with agent

According to burn depth		
superficial partial thickness	Deep partial thickness	full thickness wound
→ produces pink to reddish colour on burn skin, sensitive touch → <u>Epidermis</u> or possible portion of <u>dermis</u> is affected	→ redness, pain, swelling, blister. → affect gland, hair's follicles. → <u>epidermis</u> and <u>dermis</u> affect.	→ affect <u>epidermis</u>, <u>dermis</u>, <u>hypodermis</u> → organ, tissue, muscle, bone may be involved.
* Sign and symptom :- → redness → pain → minor swelling	* Sign and symptom :- → blisters → severe pain → redness	* Sign & symptom :- → waxy → white → charred
* Healing Time → 3 to 6 days.	* Healing Time → 1 to 3 weeks	* Healing Time :- skin grafting



2. According to burn

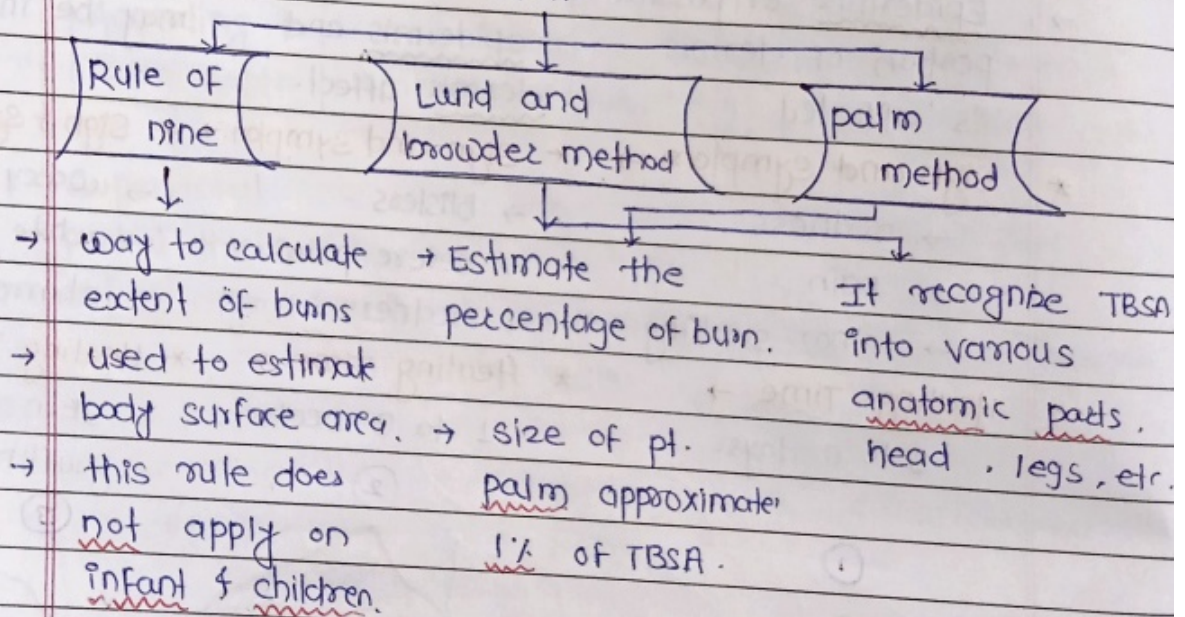
* According to Burn severity :-



* According to extent of body surface area :-

occur 10% in children

15% in adults



→ Introduced by
Alexander
Wallace

(front & back)

Head =

9%

Back =
18%

chest = 18%

9%

1%

Rt. leg =

18%

Lt. leg =

18%

Adult

front and back

Head = 18%

Back =
18%

chest =
18%

9%

1%

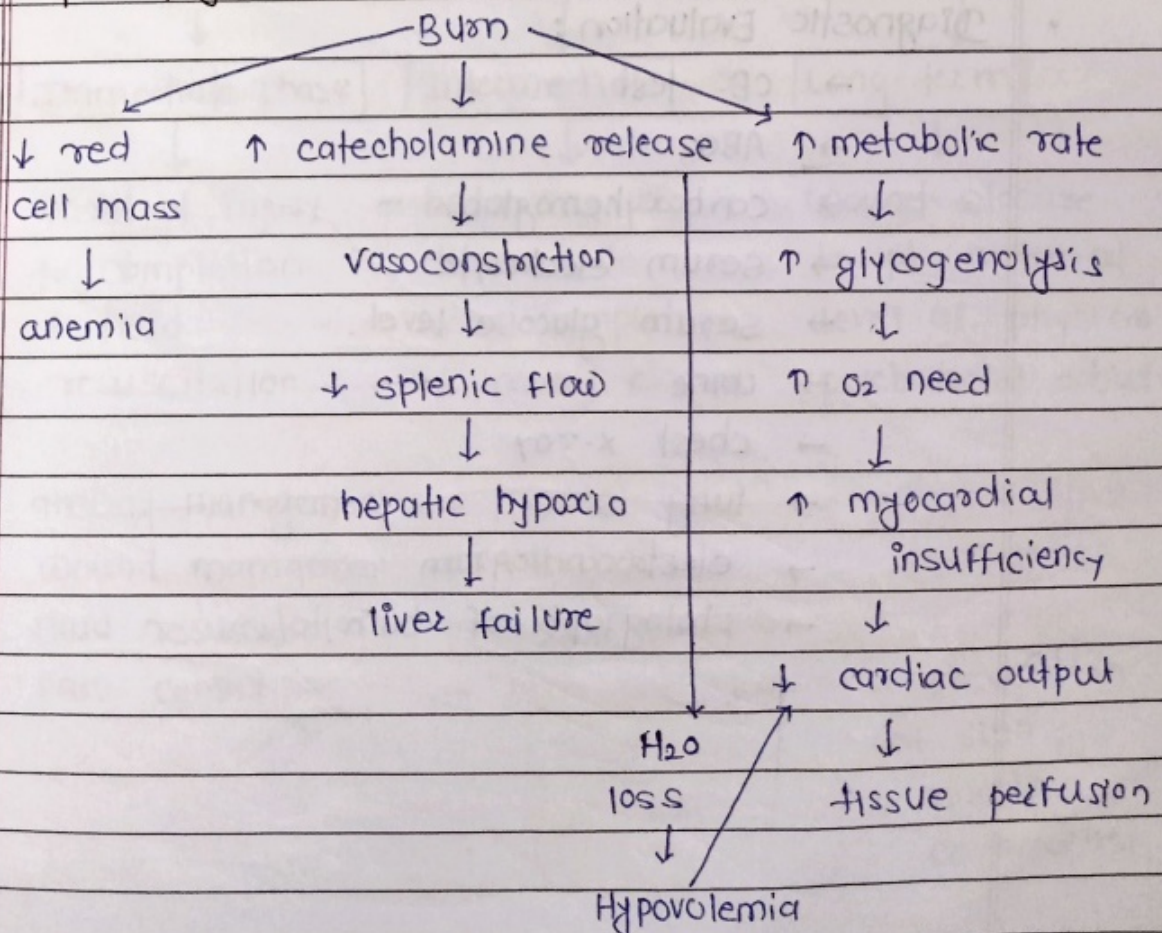
13.5

13.5

child

fig. Rule of Nine

• pathophysiology :



• Clinical features :

- painful swallowing
- Hoarseness
- darkened oral and nasal membrane
- wheezing
- edema
- nausea, vomiting
- dry skin
- loss of sensation
- death
- Fluid or electrolyte imbalance
- metabolic disturbance
- complication of vital organ.

• Diagnostic Evaluation :

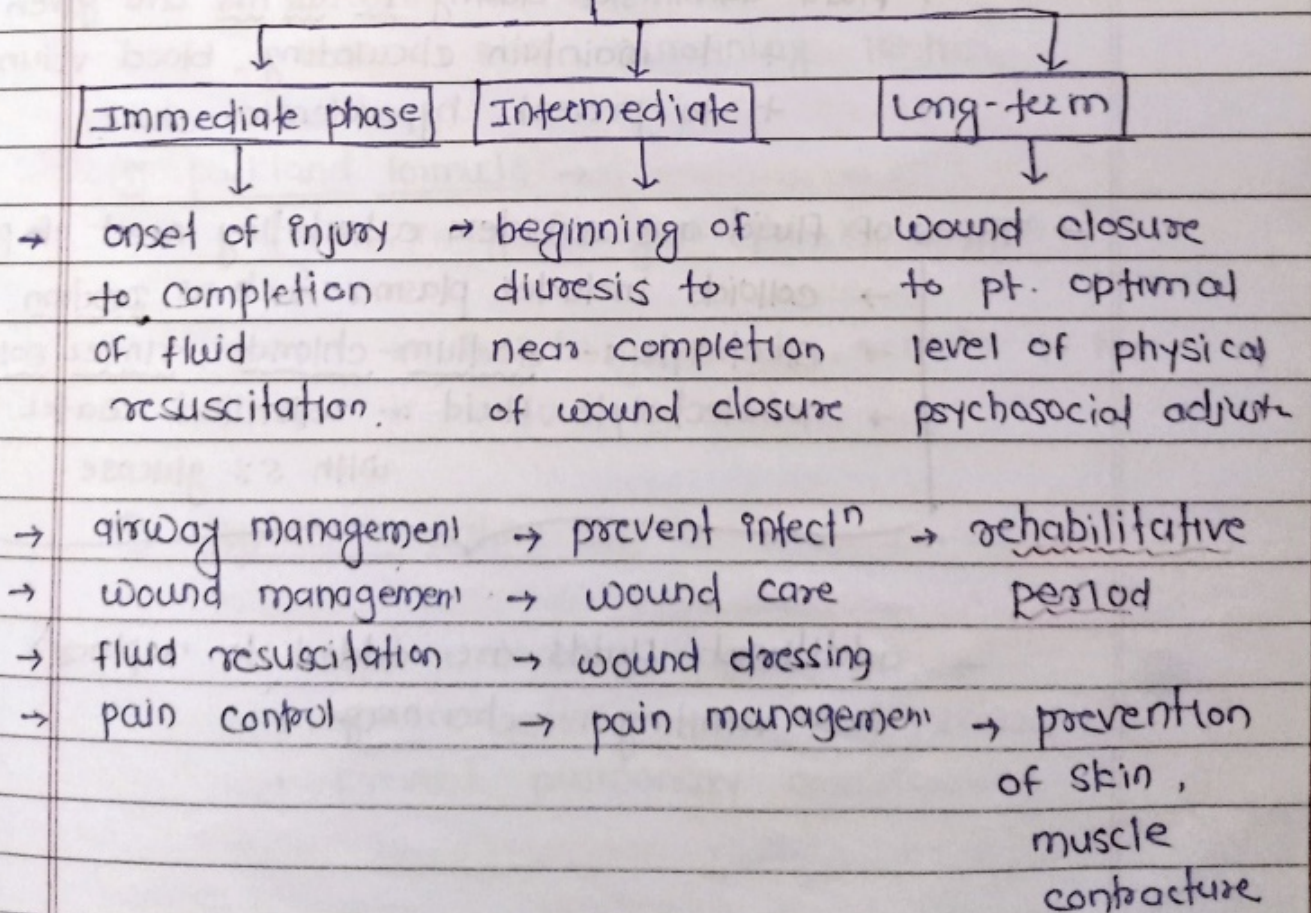
- CBC test
- ABG₅
- carboxyhemoglobin
- serum electrolyte
- serum glucose level.
- urine
- chest x-ray
- lung scan
- electrocardiogram
- photograph of burn.

• Management of Burns:

1. First aid for minor or severe burn :-

- If skin is not broken, run cool water over burned area or soot it.
- cover burn with non-adhesive bandage.
- protect burn from pressure
- severe burn, do not remove clothing
- do not use blanket or towel.
- do not apply ointment
- monitor vital signs.

2. Management of Burn according to phase :-



IMP

• Fluid Management :

Burn injury causes tremendous losses fluid through wound and adjacent tissue.

- Burn affecting body surface area require fluid resuscitation
 - more than 15% (adult)
 - more than 10% (child)

- catheter inserted to monitor urine output accurately.
- hourly urine output measure use to adequate fluid resuscitation.

* Replacing body fluid :-

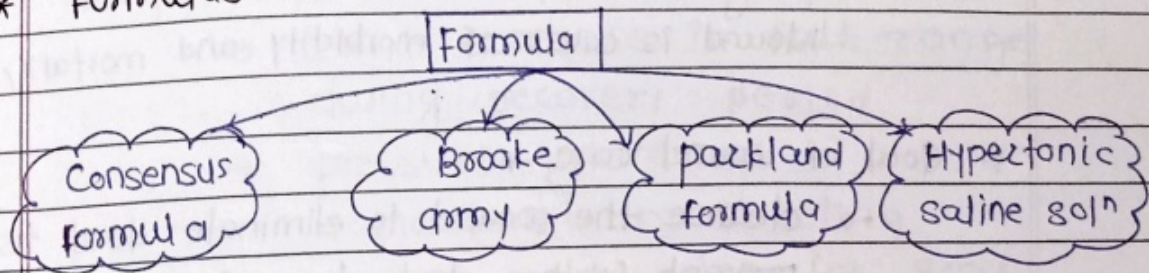
- fluid administer during 1st 48 hrs are given
 - + to maintain circulating blood volume
 - + to prevent hypovolemic shock.

* Types of fluid are consider calculating need of pt.

- colloids includes plasma such as Dextran.
- Electrolyte :- sodium chloride, ringer soln.
- nonelectrolyte fluid :- distilled water with 5% glucose.

- additional fluids are added to replace losses from vomiting, drainage.

* Formulas :-



① Consensus formula →

- $200 \text{ ml} \times \text{kg (body weight)} \times \% \text{ BSA}$.
- given in 8 hrs, remaining half 16 hrs.

② Brooke army →

- colloid → $0.5 \text{ ml} \times \text{kg} \times \% \text{ BSA}$
- electrolyte → $1.5 \text{ ml} \times \text{kg} \times \% \text{ BSA}$
- glucose → 2000 ml
- half in 8 hrs, remaining 16 hrs.

~~Top~~ ③ parkland formula →

$$4 \text{ ml} \times \text{kg (body weight)} \times \% \text{ BSA}$$

Day-1 → half be given 8 hr, remain 16 hrs.

Day 2 → colloid is added.

④ Hypertonic saline sol^n →

Nacl + lactate ringez.

- reduce edema
- prevent pulmonary complication

~~Topic~~

Wound management :

Wound is cause of morbidity and mortality,

Goal of wound care →

- cleanse the wound to eliminate dead tissue
- prevent further destruction of viable skin
- provide for pt. comfort.

Assessment →

- determine burn area or depth
- remove contamination
- cleaning
- dressing.

- Analgesic should be given.
- wound should regular reevaluate until healed
- skin grafting and early excision.
- determine which type of dressing should be used according to severity.
- biosynthetic dressing also used.

• Write measure to prevent contractures :

→ Contracture is more common in flexibility and mobility present

Joint, cheeks, neck, elbow

→ cause narrowing of mouth, keratitis restrict neck movements, ulcer, cellulitis, tenderness, disability, etc

Nursing care plan

Date _____
Page _____

* preventive measures →

- Joint exercise in full range during recovery period
- pressure garment
- topical silicon sheeting
- saline expander for scar

• Complication :

- burn shock
- pulmonary complication
- acute renal failure
- infections
- ulcer
- extensive scarring
- psychological trauma
- acute airway block.

• Nursing Diagnosis :

Nervous System

Q. Meningitis.

Ans. Introduction:

- Meninges is an outer covering of brain.
- Meninges play vital role or protect the brain
- There are 3 layers of meninges

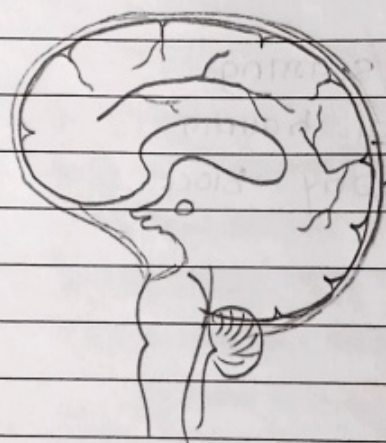
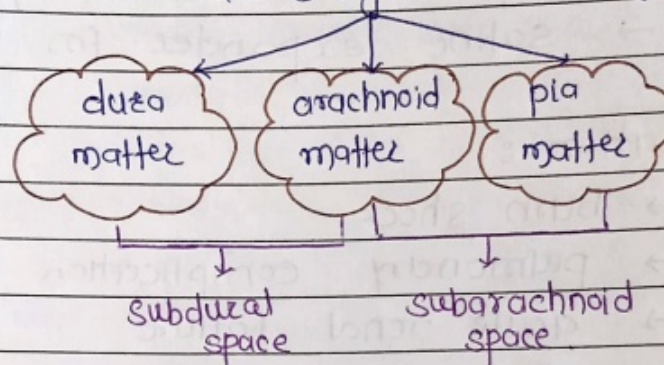


Fig Brain

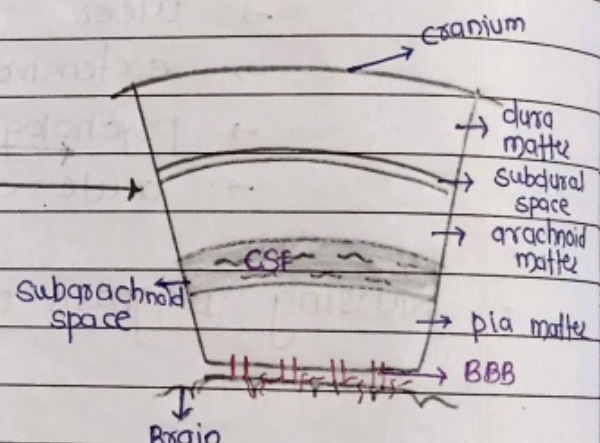


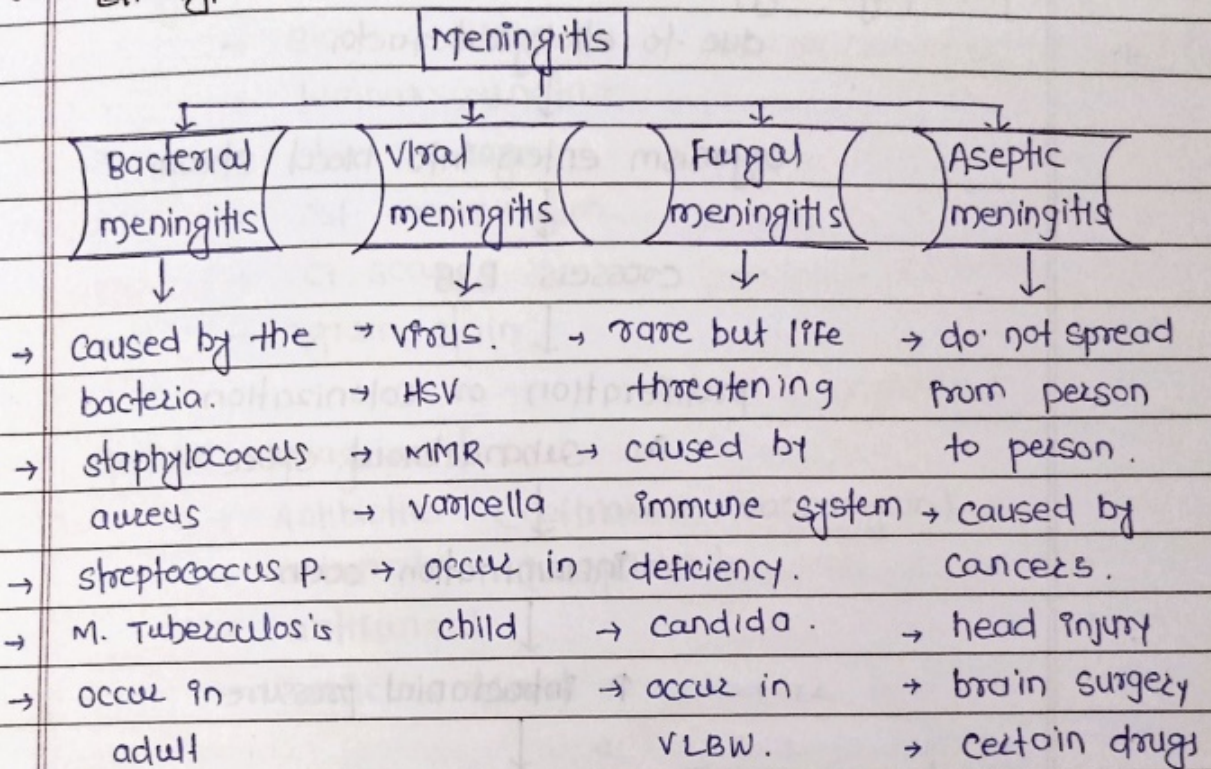
fig Meninges

• Definition:

Meningitis is inflammation of protective membrane covering brain and spinal cord called meninges.

→ Commonly caused bacteria, virus, micro-organisms.

• Eti Types :



• Etiology :

- Bacteria
- viruses
- fungus
- Invasive procedure
- trauma
- inflammatory disorder
- use of drugs
- surgery
- low immune system
- low birth weight.

• pathophysiology :

due to etiological factor



organism enters into blood stream



crosses BBB



proliferation or colonization
in subarachnoid space



inflammation occur



↑ intracranial pressure



meningitis

• Clinical Manifestation :

→ Headache

→ sudden high fever

→ confusion

→ vomiting

→ photophobia

→ irritation

→ ↑ ICP

→ nuchal rigidity (neck stiffness)

→ Kernig's sign

→ Brudzinski sign

4 Major Signs

photophobia

Neck stiffness

Brudzinski
sign

Kernig's
sign

• Diagnostic Evaluation :

- Blood culture
- lumbar puncture
- chest x-ray
- csf examination
- CT scan
- gram stain

• Medical Management :

- Antibiotic (ceftriaxone, vancomycin)
- antiviral (acyclovir)
- antifungal
- anticonvulsant

• Nursing Management :

- Administer IV fluid and medication.
- antibiotic should be started
- corticosteroid.
- record intake and output carefully.
- monitor vital sign and neurological status
- level of consciousness.
- monitor rectal temp. at every 4 hr.
- maintain dim lighting in pt. room.
- follow up appointment

Q. Myasthenia Gravis.

Ans. Introduction :

Myasthenia gravis

↓
muscle weakness.,

Weakness of voluntary muscle of body.

• Definition :

chronic autoimmune disorder affecting the neuromuscular transmission of impulses in voluntary muscle of body.

→ It is characterized by weakness and rapid fatigue of muscle under voluntary control.

• Etiology :

→ exact cause is unknown

→ tumor of thymus

→ thyroid gland abnormality

→ autoimmune attack.

→ emotional upset

→ Upper RTIs

→ trauma

→ Surgery

→ ACTH therapy

• pathophysiology :

due to etiological factor



body immune system activated.



thymic lymphocyte produce acetylcholine



depletion of acetylcholine receptor
at neuromuscular junction



prevent muscle contraction



defect transmission of impulses from
nerve to muscle cell.



loss of muscle strength



myasthenia gravis

• clinical manifestation :

→ breathing difficulty causes weak chest muscle

→ swallowing difficulty

→ difficult climbing stairs

→ difficulty talking (slurred speech)

→ impaired speech

→ drooping head

→ fatigue

→ hoarseness

→ eyelid drooping.

- Diagnostic Evaluation :
 - Medical history
 - neurological examination
 - test to detect acetylcholine receptor antibodies
 - CT scan
 - MRI
 - single electromyography
 - pulmonary function test
 - Edrophonium test
- management medical :
 - cholinesterase inhibitor
 - steroid
 - immunoglobulin therapy
- Surgical management :
 - Thymectomy (surgical remove of thymus, g^r reduces symptom)
- Nursing management :
 - Encourage adequate intake of diet
 - advise pt. to prevent muscle fatigue
 - encourage to pt. to perform breathing
 - encourage pt. to swallow
 - deep breathing or coughing exercise
 - walking exercise

Q. parkinson's Disease.

Ans. Introduction :

parkinson's disease is group of condition called movement disorder.

- parkinson's disease was first described in the 1817 by London Surgeon James parkinsons.

- It is slowly progressive neurological movement disorder that eventually leads to disability.

• Definition :

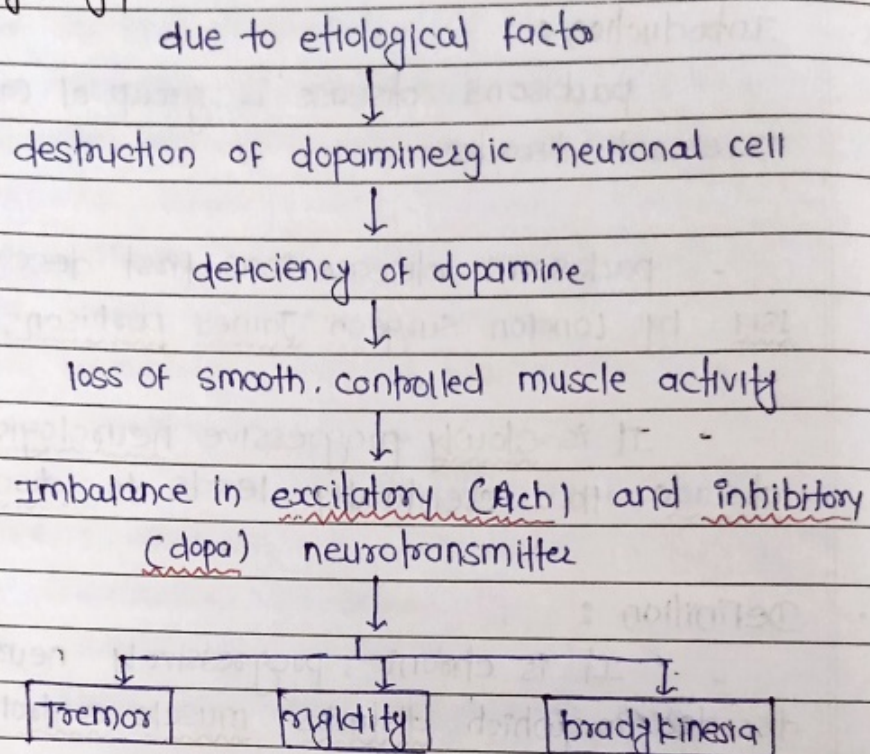
It is chronic, progressively neurological disorder in which disturbs muscle control, movement and balance.

- characterized by muscle rigidity, tremors, slowing of physical activity, loss of physical movement.

• Causes and risk factors :

- Unknown cause
- genetic factor
- family history
- atherosclerosis
- excessive accumulation of O_2
- viral infection
- head trauma
- deficiency of dopamine.

• pathophysiology :



• Clinical Manifestation :

- Tremors
- Stiffness of limb or trunk
- bradykinesia
- postural instability
- slooped position
- confusion
- anxiety
- ↑ sweating
- skin problem
- auditory or visual hallucination
- urinary frequency
- difficulty swallowing

• Diagnostic Evaluation :

- Medical history
- neurological examination
- CSF collection
- MRI
- Positron Emission Tomography (PET)

• Medical Management :

- Antiparkinson drug (Levodopa)
- dopamine agonist (apomorphine)
- MAO inhibitor (selegiline)
- COMT inhibitor (Tolcapone)
- anticholinergics (benztropine)
- antiviral therapy
- physical therapy

• Surgical Management :

- deep brain stimulation
- neural transplantation
- stereotactic procedure

• Nursing Management :

- symptomatic control of parkinsonism
- prevention of motor complication
- speech therapy
- physical exercise
- mental exercise
- healthy diet

Q. Headache.

Ans. Introduction :

- Headache is also called as cephalgia.
- Cephalgia comes from greek word i.e kephale meaning head or algos mean pain.
- headache rank among most common pain complaints.

• Definition :

Headache is pain in head that is located above the eyes, ears, behind head or in back of the upper neck.

pain in various part of head, not confined to area of distribution of any nerve.

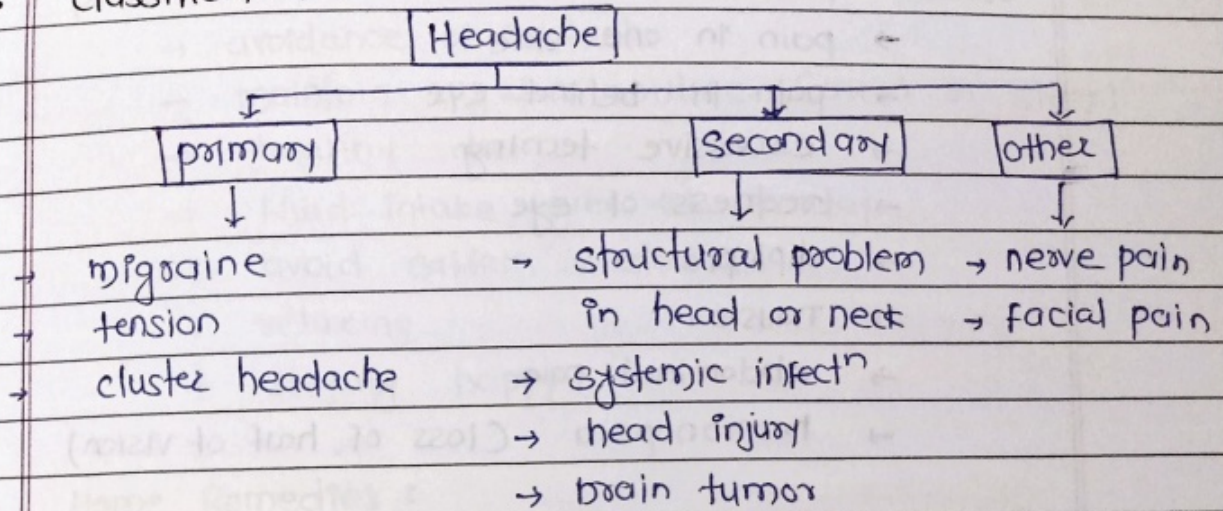
• Etiology :

- Intracranial infections
- tumors
- meningitis
- head injuries
- cerebral hypoxia
- infection
- hypertension
- disease of eye, ear, throat.
- anxiety
- lack of sleep
- weather changes

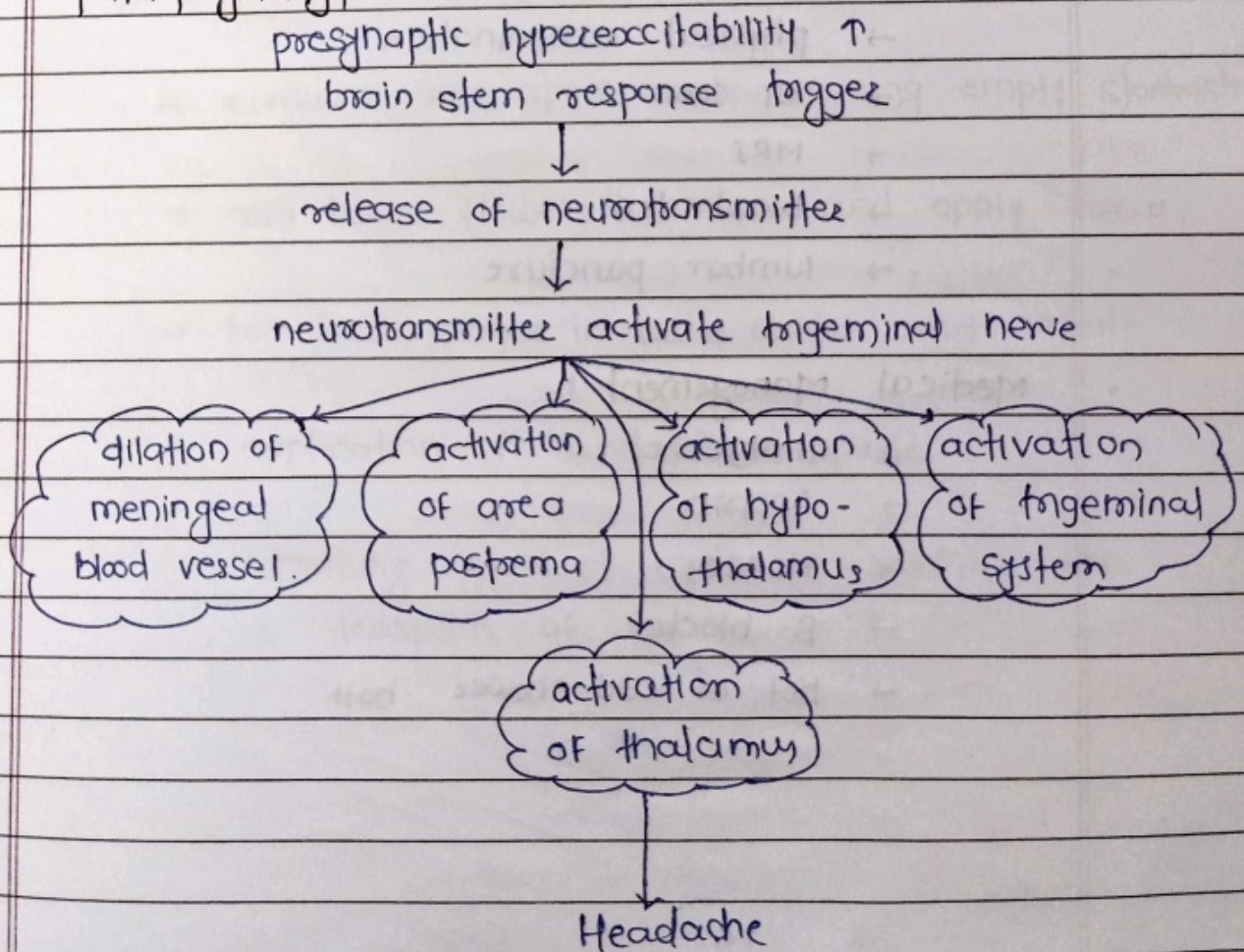
if lag Explain every type (etiology, cm, DE)

Date _____
Page _____

• classification :



• pathophysiology :



• Clinical Manifestation :

- pain in one side
- pain in behind eye
- excessive tearing
- redness of eye
- diplopia
- nausea
- abdominal pain
- hemianopsia (loss of half of vision)

• Diagnostic Evaluation :

- history collection
- physical examination
- CT scan
- MRI
- blood test
- lumbar puncture

• Medical Management :

- Analgesic
- Aspirin
- NSAIDs
- B-blocker
- hot or cold shower bath

• prevention :

- avoidance of irritants
- maintain regular routine (meal or sleep)
- healthy diet
- fluid intake over 2L per day
- avoid caffeine & alcohol
- relaxing
- staying happy.

• Home Remedies :

- Mix 200ml spinach juice and 200ml carrot juice for cluster migraine
- consume ripe apple early morning empty stomach
- rub henna flowers in vinegar and apply head.
- boil fresh ginger in head water and inhale
- application of sandalwood paste
- drinking glass of water in adding the 1 teaspoon of honey.

Q. Cerebro Vascular Accident

Ans. Introduction :

Cerebrovascular accident also called brain attack, stroke, acute ischemic cerebrovascular syndrome.

- Occurs when blood supply to part of brain is disrupted causing brain cells to die.
- O_2 , glucose cannot be delivered.

• Definition :

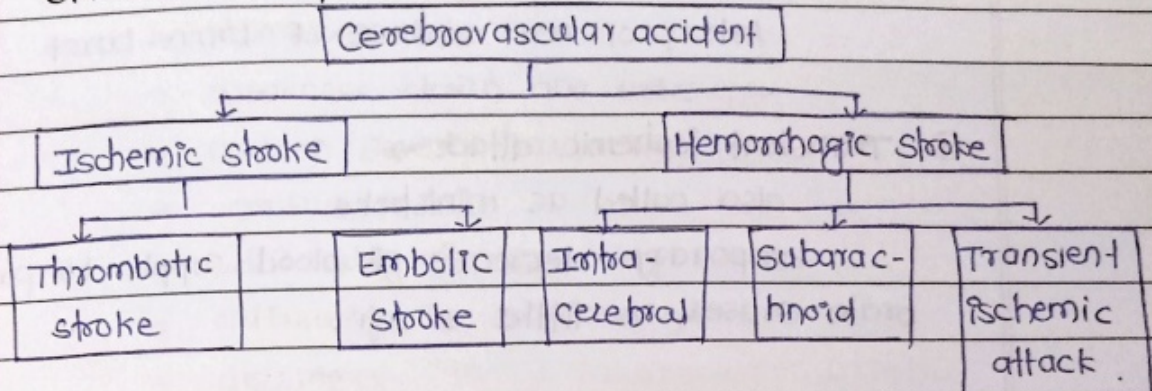
Interruption of blood supply to any part of brain resulting in sudden loss of brain function.

When blood flow to the part of brain is suddenly stop and O_2 cannot get to the part

• Causes and Risk Factor :

- Hypertension
- diabetes mellitus
- heart disease
- congestive heart failure
- atrial fibrillation
- family history
- cigarette smoking
- atherosclerosis
- kidney disease
- rheumatoid arthritis.

• classification / causes :



a) Ischemic stroke :->

- > 80 % strokes
- > occurs arteries to brain become narrowed.
- > ↓ blood flow (ischemia)

① Thrombotic stroke ->

occurs when blood clot forms in one of the arteries that supply to brain.

② Embolic stroke ->

occurs when blood clot or other debris forms away from brain.

b) Hemorrhagic stroke :->

- > occurs when blood vessels in brain rupture.
- > affect blood vessels.

① Intracerebral hemorrhage ->

Blood vessel in brain burst into surrounding brain tissue, damage brain cells.

② subarachnoid hemorrhage →

Artery of near surface of brain burst.

③ Transient ischemic attack →

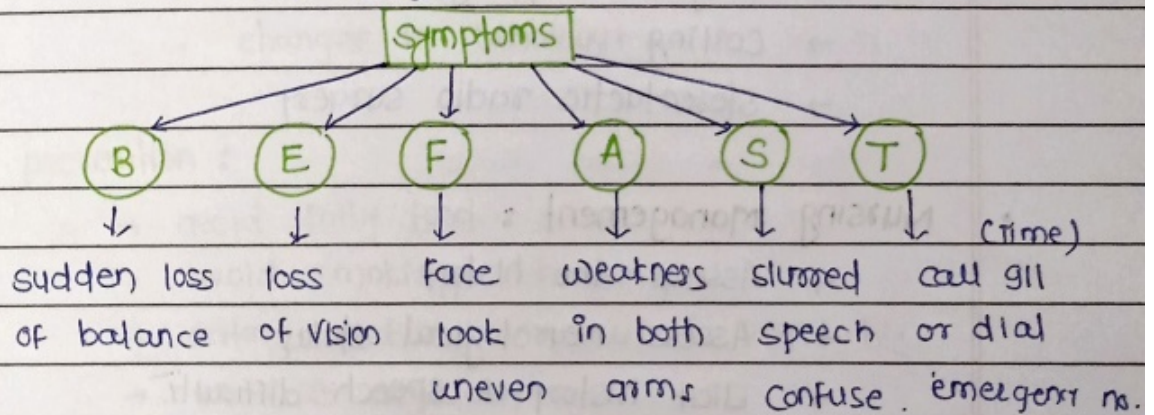
- also called as ministroke

- temporary decrease of blood supply to part of brain causes in little 5 min.

• pathophysiology :

• Clinical manifestation:

- Numbness
- weakness down one side
- sudden severe headache
- confusion
- difficulty in speaking
- difficulty in swallowing
- dizziness
- lack of control over bladder
- mood change



• Diagnostic Evaluation:

- Neurological assessment
- blood test
- computerized tomography
- MRI
- carotid doppler ultrasound
- heart test
- cerebral angiogram
- echocardiogram

• **Medical management :**

- Thrombolytic
- anticoagulant (blood thinner)
- antiplatelet.
- painkiller.
- analgesic.

• **Surgical Management :**

- carotid endarterectomy (help to prevent new strokes)
- surgical clipping
- coiling
- stereotactic radio surgery

• **Nursing Management :**

- Assess the history
- Assess neurological status
- Elicit history of speech difficulty.
- history of visual difficulty.
- check consciousness.
- mobility
- inspection may reveal related to the urinary incontinence.

• **Nursing Diagnosis :**

- pain related to ↑ ICP as evidenced by pt. verbalization.
- Hyperthermia related to disease condition as evidenced by ↑ body temp.

- self care deficit related to stroke sequelae.
- Imbalanced nutrition less than body requirements related to less intake of food as evidenced by weight loss.

• Complication :

- paralysis
- difficulty to talking, swallowing
- memory loss
- emotional problem
- changes in behaviour.

• prevention :

- avoid fatty food
- avoid smoking, drinking
- eating diet rich in fruit & vegetable
- exercise regularly
- keep blood cholesterol level in normal range
- monitor or control blood sugar level
- avoid illegal drugs.
- controlling high BP.
- get blood pressure checked every 1-2 yrs

Q. Brain Tumors

Ans- Introduction :

Brain tumor is abnormal growth of the cells within the brain.

- Brain tumor can be malignant or benign

• Definition :

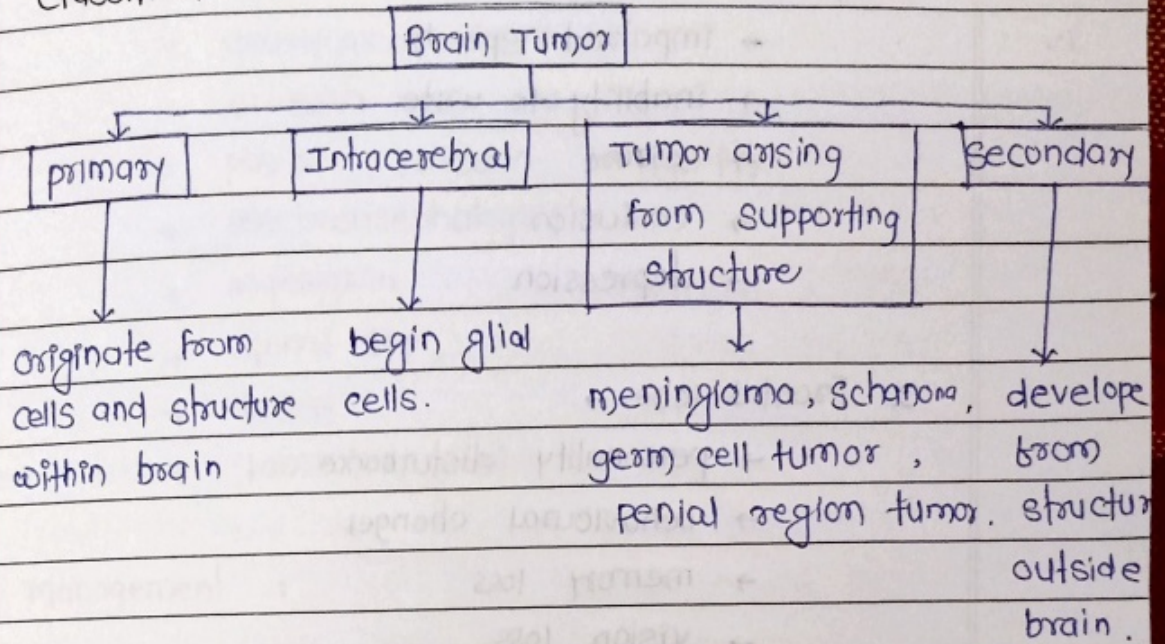
Intracranial tumor can be created by the abnormal and uncontrolled cell division, normally either in brain itself, include

- lymphatic tissue
- blood vessels
- cranial nerves
- meninges
- skull
- pituitary gland
- other organ.

• Etiology :

- Being male
- race (white people)
- age (< 70 yr)
- family history
- genetic
- occupational exposure
- cigarette smoking
- use of cellular phone
- head trauma
- dietary exposure to nitrotes

• Classification :

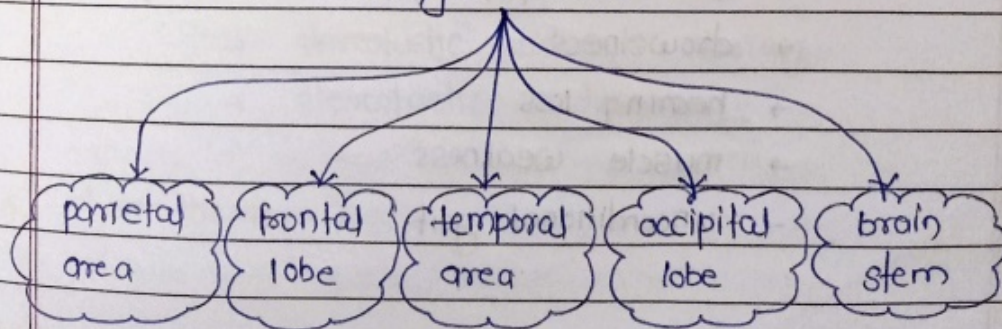


• Clinical manifestation :

1. Large tumors lead to elevate intracranial pressure

- headache
- vomitting
- altered state of consciousness
- dilation of pupil.
- cerebellar tonsil
- herniation

2. Focal neurologic deficits :-



1. Parietal area →

- impaired speech
- inability to write
- seizure
- confusion
- depression

2. Frontal lobe →

- personality disturbance
- behavioural changes
- memory loss
- vision loss

3. Temporal area →

- auditory hallucination
- complex partial seizure
- visual field deficit.

4. Occipital lobe →

- visual hallucination

5. Brain stem →

- difficulty speaking and swallowing
- drowsiness
- hearing loss
- muscle weakness
- unconditional gait.

• Diagnostic Evaluation :

- Neurological Exam
- CT scan and MRI
- positron Emission Tomography
- electroencephalography
- myelogram
- spinal tap.
- biopsy
- laboratory test

• Management :

* Surgical Management →

- Craniotomy (opening of cranium)
- Transphenoidal microsurgical removal
(used after craniotomy to remove to remove remaining tumor tissues)
- Brain mapping
- Debulking surgery

* Radiation Therapy →

- External beam radiation
- brachytherapy
- stereotactic radiation therapy.
- stereotactic radiosurgery

* chemotherapy →

* Supportive care →

- steroids
- anticonvulsant medicine
- shunt

• Nursing management :

* pre-operative care →

→ Instruct patient and family about necessity and importance of diagnostic test.

→ monitor vital signs, neurological status.

→ elevated head of bed 30°.

→ stool softener

→ Institute seizure precaution

→ administer steroid and antiepileptic agent

→ performed surgery.

* post-operative care →

→ prevention of post-operative complication

→ accurately monitor vital signs and the neurological signs.

→ administer eye drops as ordered

→ maintain skin integrity

→ maintain head of bed at 30° elevation

→ maintain body temperature

→ monitor rectal temp. accurately

- place patient on hypothermia blanket
- institute seizure precaution.
- maintain accurate record of intake & output
- prevent pulmonary complication
- cough and deep breath every 2 hrs
- continuously talk to pt. while providing care

• Nursing Diagnosis →

1. Altered cerebral tissue perfusion related to increased intracranial pressure.
2. pain related to increase intracranial pressure.
3. Impaired gas exchange related to neuromuscular dysfunction.
4. Risk for injury related to altered level of consciousness.
5. Self care deficit related to loss of impaired of motor function.

Q. Glasgow Coma Scale

Ans. Introduction :

The Glasgow coma scale is tool for assessing a patient's response to response.

• scores range →

Deep coma - 3

normal - 15 (full conscious)

- Scale was published in 1974 by Graham Teasdale and Bryan J.

- Definition :

GCS is neurological scale which aims to give reliable way of recording the conscious state of person.

- Scale Scoring :

1. Eye response - 1-4

2. Verbal response - 1-5

3. Motor response - 1-6

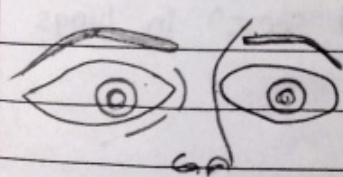
- GCS Score :

Mild → 13-15

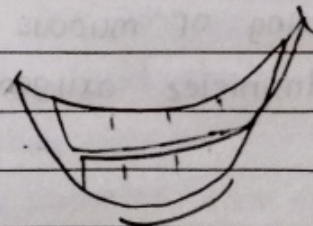
Moderate → 9-12

Severe → 3-8

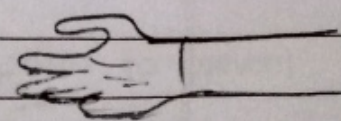
Activity	Best Response		
	Adult	Infant	Score
Eye opening (E)	Spontaneous	Spontaneous	4
	To speech	To speech	3
	To pain	To pain	2
	None	None	1
Verbal (V)	Appropriate speech	Coos, babbles	5
	Confused speech	Irritable, cries	4
	Inappropriate words	cries, inconsolable	3
	Incomprehensible	moans to pain	2
	None	None	1
Motor (M)	Obeys command	normal spontaneous movement	6
	Localized pain	withdrawn to touch	5
	Withdrawn to pain	withdraw to pain	4
	Decorticate to		
	Flexion	Flexion	3
	extension	extension	2
	None	None	1



Eye response



Verbal response



Motor response

Q. Management of unconscious patient

Ans. Introduction :

Unconscious is the patient unaware of what is going on around him, and unable to make purposeful movement.

- unconscious patient is completely dependent on others for all of his needs.

• Nursing care consideration :

- assume that patient can hear, even though he makes no response
- address patient by name
- record patient vital sign and level of consciousness
- monitor rectal temperature
- note changes in response to stimuli.
- keep pt. room comfortable

1. Airway and Breathing →

- maintain pt. airway by proper positioning of patient.
- suction the mouth, pharynx, trachea.
- reposition pt. from side to side to prevent pooling of mucous and secretions in lungs.
- administer oxygen

2. Nutritional Needs →

- fed by gavage
- do not leave pt. unattended while gavage feeding
- record all intake and urine output
- provide semiprone position
- maintain IV, fluid therapy
- observe pt. sign of dehydration.

3. Skin care →

- should be given complete bath everyday.
- skin should lubricate with moisturizing lotion after bathing
- nail should kept short
- provide oral hygiene at least twice.
- apply petrolatum to lips.
- change bed line
- observe skin for evidence of skin breakdown.

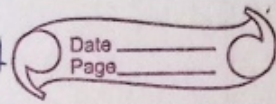
4. Elimination →

- keep accurate record of bowel movement.
note time, colour, amount, consistency.
- liquid stool softener
- assess for fecal impaction
- bladder should be emptied regularly to prevent infection.
- adequate fluid should be given to prevent dehydration
- provide catheter care

5. positioning →

- maintain proper body alignment.
- limbs must supported in position of function.
- change pt. position to new weight bearing
- utilize foot board at end of bed to decrease possibility of foot drops.
- physical therapy personnel will not always be available.
- use draw sheet for easier turning
- keep side rails up.
- change pt. position every two hrs.
- ROM exercise
- utilize protective mattress.

chorea → Jerk movement
abnormal muscle movement



Q. Huntington's disease

Ans- Introduction :

Huntington disease is also called as the Huntington's chorea, hereditary chorea, chronic progressive chorea and adult chorea.

• It was first described in 1872 by American doctor, George Huntington.

• Definition :

Huntington's disease is chronic, progressive, hereditary disease of central nervous system in which degeneration of cerebral cortex and basal ganglia.

• Causes :

- Defective gene (chromosome 4)
- exact cause unknown
- family history
- autosomal dominant genetic disorder
- Age (25 to 55)
- gender
- physical changes
- mental changes
- emotional changes

• pathophysiology :

premature death of cells in striatum
of basal ganglia



loss of cells in cortex region of brain



loss of cells in cerebellum



destruction of cells, lack of neurotransmitter gamma



deficiency of GABA



degeneration of brain cells



jerking movement

• Clinical Manifestation :

- mild tremor
- clumsiness
- lack of concentration
- irritability
- short term memory problems
- mood changes
- depression
- movement disorder
- cognitive disorder
- psychiatric disorder
- reduced sex drive

• Diagnostic Evaluation :

- History collection
- neurological examination
- family history
- CT scan
- MRI
- Electroencephalogram
- PET scan of brain
- genetic counselling

• Management :

- Haloperidol, diazepam (block dopamine receptor)
improve chorea, depression
- clonazepam (allevate choreic movement)
- antidepressant medication (helpful for the emotional disturbance)
- antiparkinsonism drug
- mood stabilizer drug
- fetal neural allograft (improve motor, cognitive function.)

• Rehabilitation :

- psychotherapy
- speech therapy
- physical therapy
- occupational therapy
- functional therapy

Q. Bell's palsy
Ans. Introduction :

Bell's palsy is common disease acute mononeuropathy (disease involve only one nerve)

- Acute facial nerve paralysis

• Definition :

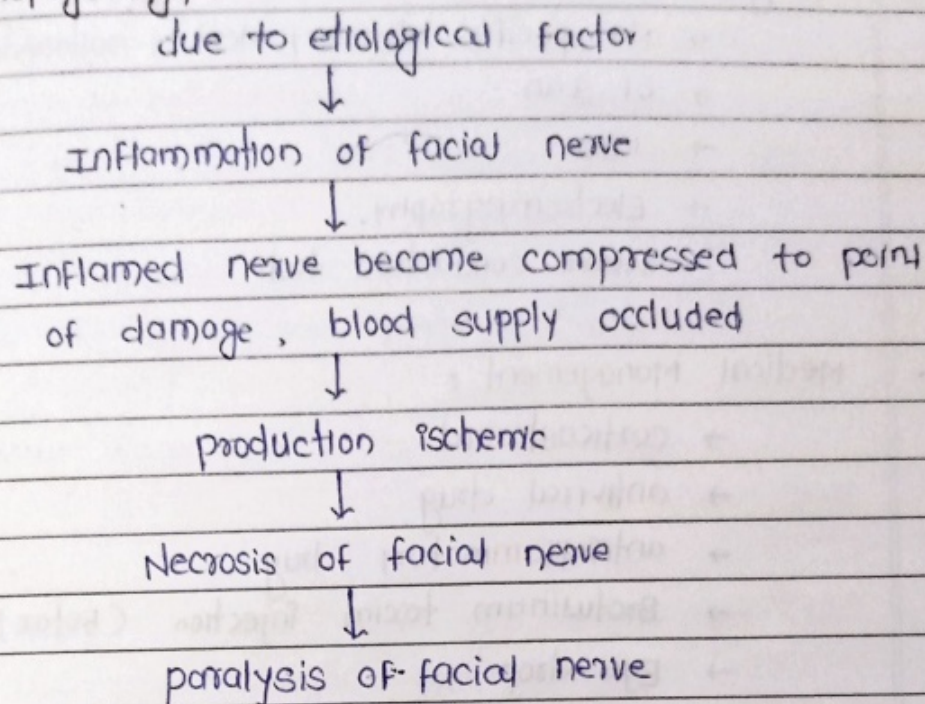
Dysfunction of cranial nerve VII (facial nerve) results in inability to control facial muscles on the affected side.

- Weakness or paralysis of muscles.

• Etiology :

- Unknown
- herpes zoster
- chicken pox
- mononucleiosis
- brain tumor
- stroke
- lyme disease
- HIV infection
- middle ear infection
- Sarcoidosis

• pathophysiology :



• Clinical Manifestation :

- difficulty eating and drinking
- foot falls outside of mouth
- drooling
- hard to close one eye
- problem smiling, grimacing
- twitching
- dry eye or mouth
- headache
- loss of sense of taste
- sound that louder in one eye.

- Diagnostic Evaluation :

- No specific laboratory test
- CT scan
- MRI
- Electromyography
- Nerve conduction test

- Medical Management :

- corticosteroid
- antiviral drug
- antiinflammatory drug.
- Botulinum toxin injection (Botox)
- Eye drop.

- Surgical Management :

- Facial nerve decompression
- nerve transposition
- muscle transposition.

~~Reprodu~~ Oncology

Q. Cervical Cancer

Ans- Introduction :

Cervical cancer develops in lining of cervix, lower part of uterus that enters vagina.

- 80-90% cervical cancer develops in flat scaly surface cell that line cervix.

- cervical cancer is malignant tumor derived from cells of cervix.

- Definition :

malignant tumor derived from cells of the 'cervix uteri' which is lower part 'neck' of womb.

- Etiology :

- Human papilloma virus
- sexual history
- multiple sexual partner
- smoking
- weakened immune system
- several pregnancy
- giving birth at young age
- contraceptive pill.
- family history

• Stages :

1. stage-1 →

cancer is confined to cervix

2. stage-2 →

cancer is stage include cervix and uterus,
does not spread to pelvic wall or lower
portion of vagina.

3. stage-3 →

moved beyond cervix and uterus to pelvic
wall or lower portion of vagina.

4. stage-4 →

spread to nearby organs, bladder, rectum, etc.

• pathophysiology :

• Clinical Manifestation :

- abnormal vaginal bleeding
- bleeding after sexual intercourse
- heavier menstrual period
- bleeding after going through menopause
- Increased vaginal discharge
- pelvic pain
- weight loss
- painful urination
- anemia.

• Diagnostic Evaluation :

- PAP test
- HPV DNA test
- colposcopy
- cone biopsy (large area of tissue around cervix are excised for examination)
- chest X-ray
- CT scan
- MRI
- pelvic ultrasound
- biopsy
- pelvic examination
- cystoscopy

• Medical management :

- chemotherapy
- radiotherapy

• surgical management :

- Laser surgery
- Loop electrosurgical excision procedure (LEEP)
- cryosurgery
- hysterectomy

• Nursing management :

* Dietary management →

- fruits and vegetable
- vitamins (Juices)
- carotenoids

* prevention →

- Safe sex
- cervical screening
- have few sexual partner
- delay 1st sexual intercourse
- don't smoke
- HPV vaccine

Q. TNM classification.

Ans- Introduction :

TNM stands for tumor, node and metastases

• Definition :

Tumor → swelling or mass of tissue that may be benign or malignant.

Benign → Noncancerous or growth

Malignant → dangerous to health characterized by progressive and uncontrolled growth.

• Characteristics :

	Benign	Malignant
→	slow growing	Rapid growing
→	Tumor stasis occur	It invade surrounding tissue
→	do not occur adjacent tissue.	They are anaplastic
→	death is rare.	

• Factors of cancer staging :

T → based on size of original tumor and whether or not it has grown into nearby tissues.

N → Whether or not cancer has spread to the nearby lymph nodes.

M → Whether or not cancer has spread to distant areas of body.

• TNM classification :

1. T → Tumor

T_x - primary tumor cannot be assessed

T₀ - No evidence of 1° tumor

T_{is} - Carcinoma in situ (mucosa)

T₁ - Tumor invade submucosa

T₂ - Tumor invades muscularis propria

T₃ - Tumor invade through muscularis propria into subserosa.

T₄ - Tumor directly invade other organs & structures

2. N → Regional lymph node

N_x - regional lymph node cannot assessed

N₀ - No regional lymph node metastasis

N₁ - metastasis in 1-3 pericolic or the perirectal lymph nodes

N₂ - metastasis in 4 or more pericolic

N₃ - metastasis in lymph node along course of named vascular trunk

3. M → Metastasis

M_x - cannot be assessed

M₀ - no distant metastasis

M₁ - distant metastasis

Q. Laryngeal Cancer

Ans- Introduction :

Laryngeal cancer also called as cancer of larynx or laryngeal carcinoma

- cancer of larynx occur more frequently in men than women.
- most common in people between 50 to 70 of age.

• Definition :

Cancer of larynx is malignant tumor in the larynx (voice box)

- Inner wall of larynx lined by squamous cell.
- laryngeal cancer originates in glottis

• Etiology :

- Age (above 55)
- gender (men)
- race
- smoking
- alcohol
- tar products
- paint fumes
- nutritional deficiency
- GERD
- cement dust

• Pathophysiology :

due to etiological factors



progressive accumulation of genetic alteration in cells



transformation of squamous cell of larynx



DNA damage, mutation of gene



mucosal irregularity, erythroplasia.

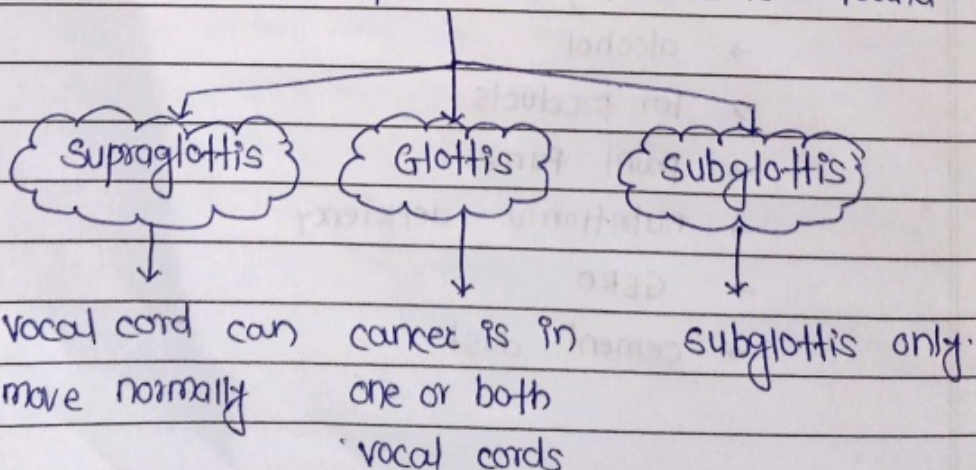
• Stages of Laryngeal Cancer :

1. Stage-0 (carcinoma in situ) →

- Abnormal cells found in lining of larynx.
- abnormal cells may become cancer and spread into nearby tissue.

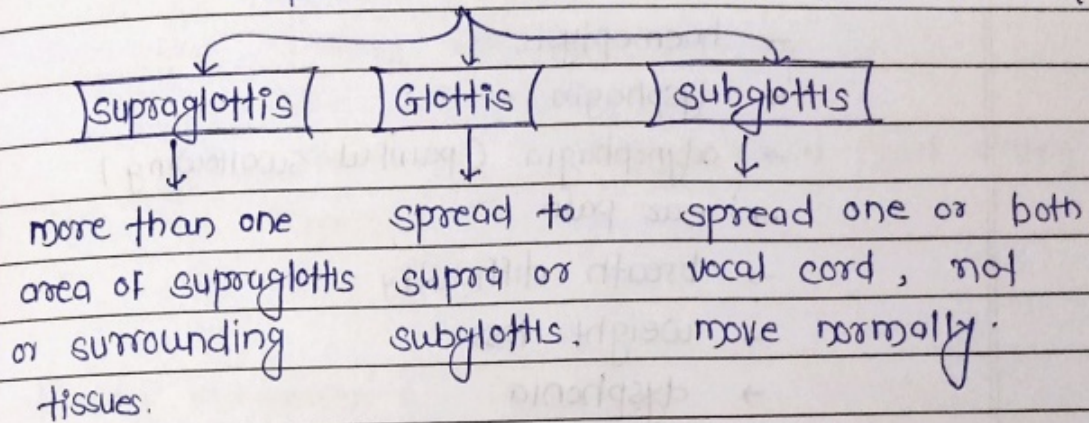
2. Stage-1 →

- cancer has formed
- It depends on where cancer found larynx.



3. stage-2 →

- cancer is in larynx only.
- depends on where cancer found in larynx.



4. stage-3 →

cancer is in larynx, vocal cord do not move normally

5. stage-4 →

cancer has spread through the thyroid cartilage and spread to tissue beyond larynx such as neck, trachea, esophagus.

- spread to front of spinal column and surround carotid artery.

- spread to other body part

• Clinical Manifestation :

- voice change
- lesion
- haemoptysis
- dysphagia
- odynophagia (painful swallowing)
- ear pain
- breath difficulty
- weight loss
- dysphonia

• Diagnostic Evaluation :

- physical examination of throat & neck
- Indirect laryngoscopy
- Endoscopy
- CT scan
- MRI
- biopsy
- barium swallow test

• Medical Management :

- Radiation therapy
- chemotherapy
- radiation therapy alone
- radiation therapy with surgery
- radiation therapy combined with chemotherapy.

• surgical Management :

- supraglottic laryngectomy
- Hemilaryngectomy
- partial laryngectomy
- Total laryngectomy
- cordectomy (remove vocal cord only)
- thyroidectomy
- laser surgery

• Nursing Management :

* Assessment →

- Ask about smoking history ; alcohol intake
- assess breathing pattern
- observe ability to swallow
- fluid and electrolyte balance
- nutrition history
- check weight
- assess ability of communication
- assess level of anxiety.

* Nursing Diagnosis →

1. Ineffective breathing pattern related to presence of artificial airway , inability to cough.

2. Impaired verbal communication related to presence of tracheostomy tube.

3. Altered sleep pattern related to insomnia

Q. chemotherapy.

Ans. Introduction :

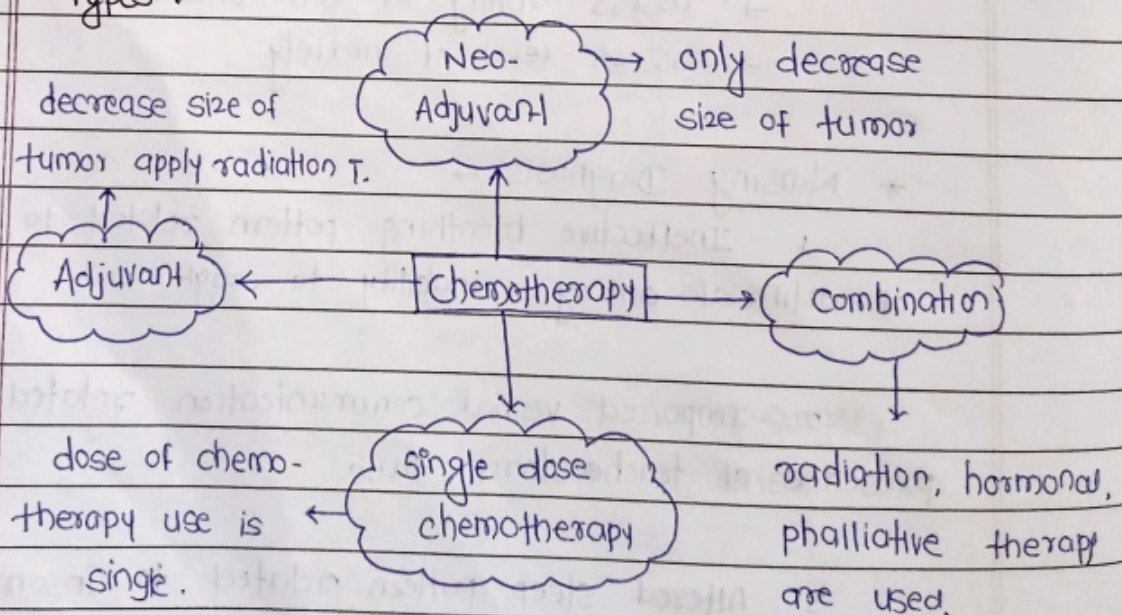
chemotherapy disrupts cell cycle in various phases by interrupting cell metabolism and replication

• Definition :

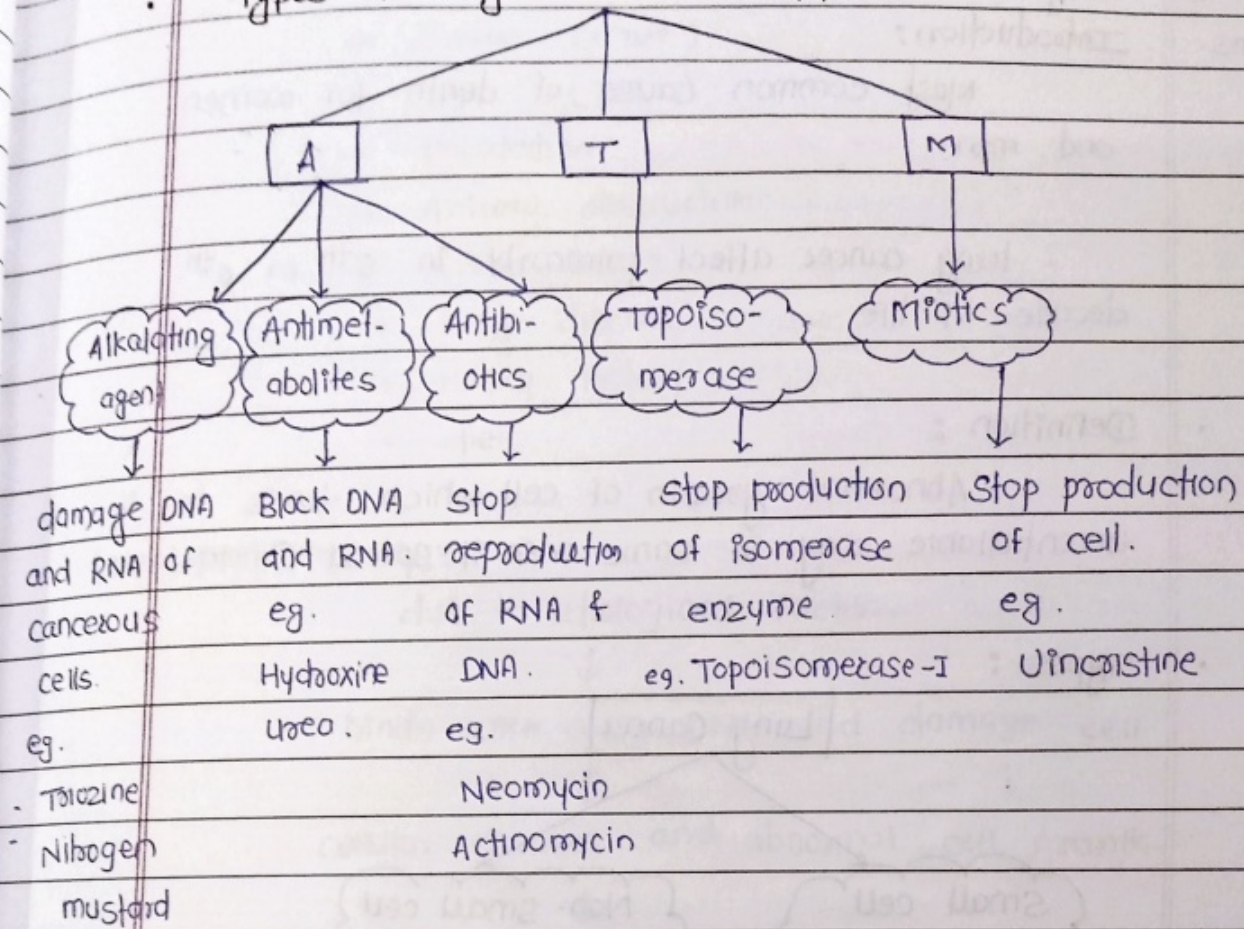
chemotherapy that involves use of cytotoxic medication to cure cancer or decrease tumor size or to prevent suspected metastasis.

The compound that are used to kill or inhibit growth of cells.

• Types :



Types of Drug for chemotherapy :



Side Effects :

- Weakness
- fatigue
- abnormal bleeding
- hair loss

Nursing Management :

- Monitor weight
- check bowel and bladder movement
- monitor body fluid
- assess mental status

Q. Lung Cancer

Ans- Introduction:

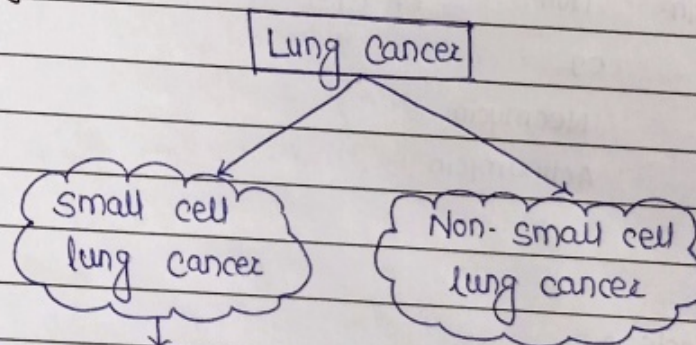
Most common cause of death for women and men.

- lung cancer affect primarily in 5th or 6th decade of life.

• Definition :

Abnormal growth of cell which tends to in uncontrollable way in same case it spread (metastosis)

• Types :



- Aggressive form of lung cancer

- Epithelial lung cancer other than cell lung cancer.

- start in bronchi and affect whole lung

- Spread slowly than small lung.

- spread to bone, liver bone marrow.

① Squamous cell

② Adenocarcinoma

③ large cell carcinoma

• Causes and Risk factor :

- Gender (male)
- Age (>60)
- population
- Airflow obstruction
- Active smoke
- lung disease
- family history
- diet

• pathophysiology :

due to etiological factors



binds with cell's DNA and damage cell



cellular changes and abnormal cell growth



malignancy



abnormal proliferation of lung cell.



Inflammatory changes

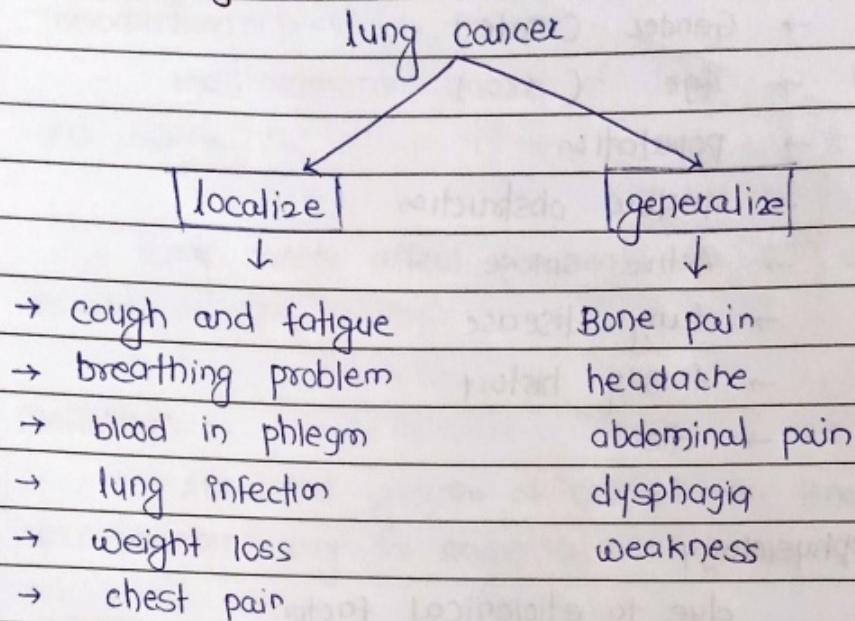


lesion formation in lung tissue



bronchiogenic carcinoma.

• Sign and symptoms :



• Diagnostic Evaluation :

- chest x-ray
- CT scan
- sputum cytology
- fibroptic bronchoscopy
- thoracentesis
- Lab test
 - CBC test
 - biopsy
- bronchoscopy
- endoscopy
- mediastinoscopy.
- stages of tumor

• Medical Management :

- Radiation therapy
- chemotherapy
- hormonal therapy
- biological therapy
- stem cell transplant

• Surgical Management :

1. Lobectomy →
single lobe is removed
2. Bilobectomy
3. sleeve resection →
cancerous lobe is removed from main bronchus.
4. pneumonectomy →
removal of entire lung.
5. Segmentectomy →
removal of segment
6. Wedge resection →
removal of small pie shaped area.
7. chest wall resection with removal of cancerous lung

- Nursing management :

- * Assessment →

- past history
 - nutritional habit
 - mental status examination
 - vital signs,
 - respiratory function
 - Wheezing
 - Hoarseness
 - pleural effusion

Q. Breast Cancer

Ans- Introduction :

- Breast cancer is most common.
- Abnormal growth of cell or mass.
- about 70% of female develop breast cancer. only 20% of male.
- It is most often diagnosed in adult over age 50.

• Definition :

Breast cancer happens when cells in breast grow and divide in an uncontrolled way creating mass of tissue.

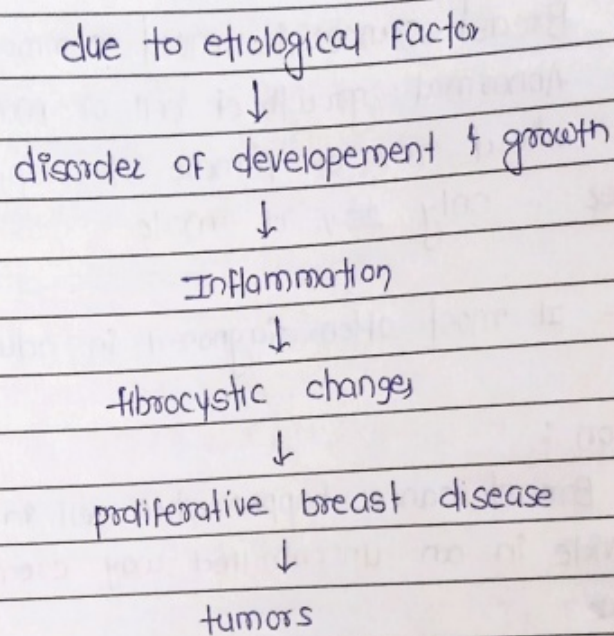
• Types :

- Infiltrating ductal carcinoma
- ductal carcinoma in situ
- lobular carcinoma in situ
- triple negative breast cancer
- Inflammatory breast cancer
- paget disease

• Risk Factor :

- Age
- Sex
- radiation exposure
- infertile women
- family history / genetic
- obesity
- alcohol abuse
- early menses

• pathophysiology :



• clinical manifestation :

- change in size and shape of breast
- scaly nipple
- redness
- swelling
- pain
- tenderness
- unilateral nipple discharge
- dimpling
- skin irritation
- puffiness
- retracted nipple
- scar formation
- lump

• Stages :

stage - 0 → cancer cell present in lining of lobule
do not spread to duct and fatty tissue

stage - I → spread of cancer fatty tissue near &
present in duct and lobule [→ 2cm]

stage - II → tumor 2 to 5 cm and not spread to
surrounding tissue

stage - III → more than 5 cm, spread to lymph node

stage - IV → metastatic stage.

• Diagnostic Evaluation :

- History collection
- physical examination
- breast lump exam
- skin changes
- X-ray
- \$ USG
- needle aspiration
- biopsy
- CT scan
- core biopsy
- MRI
- hormone receptor test
- breast self examination

- Medical management :

1. Local therapy →

- radiation therapy
- biological therapy
- hormone therapy
- chemotherapy

- Surgical Management :

- Lumpectomy

(removal of lump)

- mastectomy

- segmental partial mastectomy

- remove cancerous part
- remove lump in area

- Total mastectomy

- modified radical mastectomy

(remove part of tissue which cancerous)

- ovarian ablation

(If ovary unable to produce hormone it will remove)

- Bone marrow transplant

• Nursing Management :

→ monitor for adverse effect of radiation therapy.

→ monitor the vital signs.

* prevention :

→ control the weight

→ get plenty of physical activity

→ breast feed

→ healthy diet

→ avoid exposure to environment pollution

→ screening

→ menstruation

→ lactation

Q. Ovarian cancer

Ans. Introduction :

Cancer is disease in which abnormal cell divide without control.

- It spread to other parts of body through the blood and lymph systems.

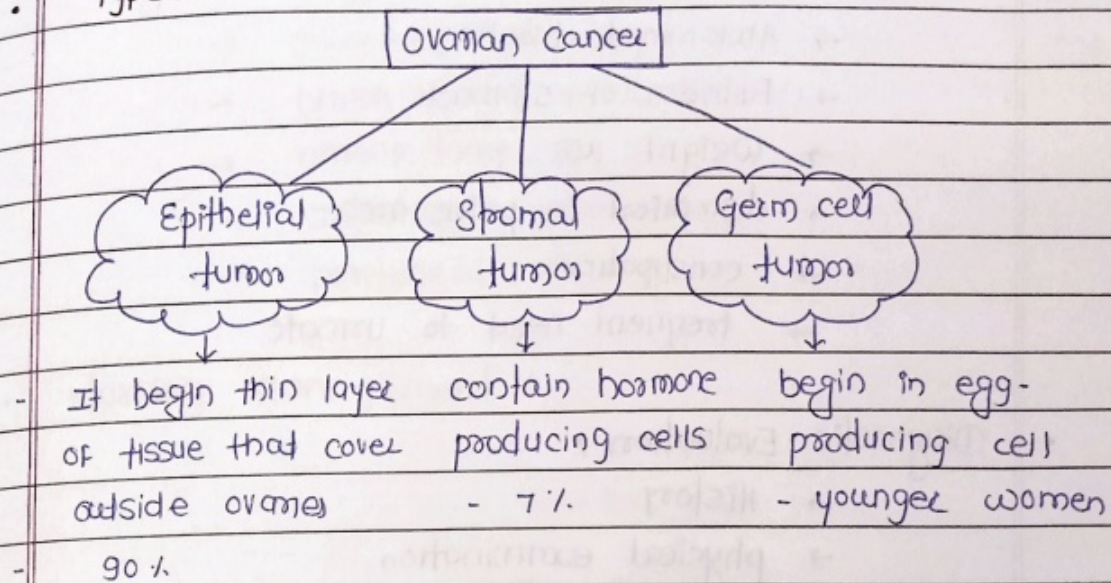
• Definition :

• Abnormal growth of cells over the ovaries, egg-releasing and hormone producing hormone of female.

• Risk factor :

- Age (50+)
- family history
- obesity
- endometriosis
- infertility drug
- talcum powder
- smoking
- birth control
- breast cancer
- gynaecologic surgery
- hormone therapy
- reproductive history.

Types :



Stages :

stage-1 → affect ovary, not spread

stage-2 → affected one or both ovaries and also other organ, bladder, rectum, fallopian tubes

stage-3 → affect one or both ovaries and lining of abdomen or lymph node

stage-4 → spread to other parts of body
peritoneal cavity.

- Clinical Manifestation:

- Abdominal bloating
- Fullness of stomach
- weight loss
- discomfort in pelvis area
- constipation
- frequent need to urinate

- Diagnostic Evaluation:

- History
- physical examination
- blood test
- imaging test
- laparoscopy
- colonoscopy
- biopsy
- lymph node examination
- pelvic examination
- tumor marker
- CT scan
- MRI

- Medical management:

- chemotherapy
- radiation treatment
- hormonal therapy
- Alternative therapy

• Surgical Management :

- complete hysterectomy
- lymph node evaluation
- omentectomy
- intestinal resection
- peritoneal stripping

• Nursing Management :

Q. Uterine Cancer

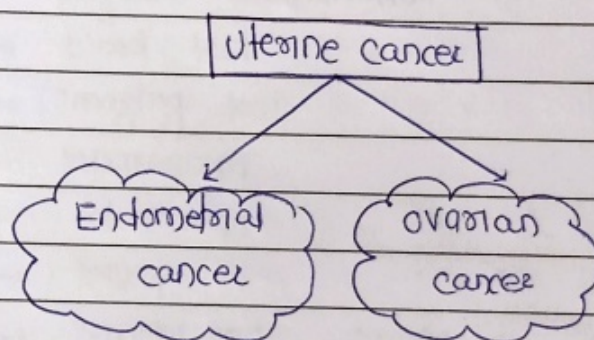
Ans- Introduction:

uterine cancer may refer to any of several different type of cancer which occurs in uterus

- Also called as endometrial cancer

• Definition :

- Abnormal growth of cell into uterus
- most common gynaecological cancer



• Etiology :

- Unknown
- chronic exposure to estrogen
- endometrial hyperplasia
- obesity
- high fat diet
- diabetes
- Age
- family factor
- radiation therapy
- race (white)

- Clinical Manifestation :
 - Asymptomatic
 - abnormal vaginal bleeding
 - non-bloody discharge
 - painful urination
 - pelvic pain
 - pain during intercourse
 - weight loss
 - changes in bowel and bladder movement

- Diagnostic Evaluation :
 - History collection
 - physical examination
 - blood test
 - laparoscopy
 - pelvic examination
 - tumor marker
 - USG.

- Medical Management :
 - Radiation therapy
 - Hormone therapy
 - chemotherapy
 - Carboplatin
 - Cisplatin
 - Doxorubicin
 - Taxol.

• Nursing Management :

1. pre-operative Nursing Intervention →

→ Assist pt. to seek information on stage of cancer.

→ Explain side effect of radiation & chemotherapy

→ Administer analgesic and tell patient that heavy lifting, sexual intercourse

→ Encourage small, frequent nutritional supplements as able.

→ prepare skin for surgery, skin preparation include inguinal area, lower abdomen.

2. post-operative Nursing Intervention →

→ Observe pt. for sign of shock, check wound dressing regularly.

→ Nurse should observe for signs of internal and external bleeding

→ Give analgesic as prescribed

→ Encourage frequent changes of position in bed.

- Monitor stool characteristics and frequency
- Ensure adequate hydration with IV fluid
- Administer antiemetic
- maintain intake and output chart

• prevention :

- Taking hormone therapy with progestin
- history of using birth control pills
- maintaining healthy weight
- Exercise

Q. Radiation Therapy

Ans.

Introduction :

The modality of treatment of cancer are surgery, radiotherapy, chemotherapy

• Definition :

Therapeutic use of ionizing radiation in management of neoplasm of body without surgery

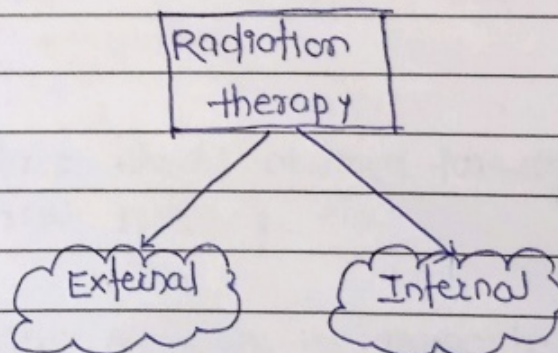
• Goal :

- To cure cancer
- To reduce symptoms

• principles :

- Delivering of optimal dose to tumor
- minimal damage of surrounding organs and tissue
- measure stimulating protective force of body.

• Types :



1. External Radiation Therapy →

- proton beam therapy
- Neutron beam therapy
- stereotactic radiotherapy

2. Internal Radiation Therapy →

- place radioactive material into tumor or surrounding tissue

Nursing Management :

The nurse explain procedure for delivering radiation, describe equipment, duration of procedure.

- Explain to pt. his role before, during and after procedure.

- Assist pt. skin, nutritional status, oral mucosa for change.

- provide oral hygiene to remove debris and promote healing.

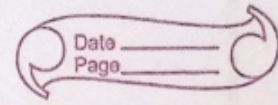
- Assist him/her to daily activity.

- explain purpose of isolating pt

• Adverse Effect :

- fatigue
- Hair loss
- Nausea and vomiting
- skin changes
- blurry vision
- tenderness in breast
- cough
- shortness of breath
- taste changes
- diarrhea
- sexual problem
- urinary & bladder changes

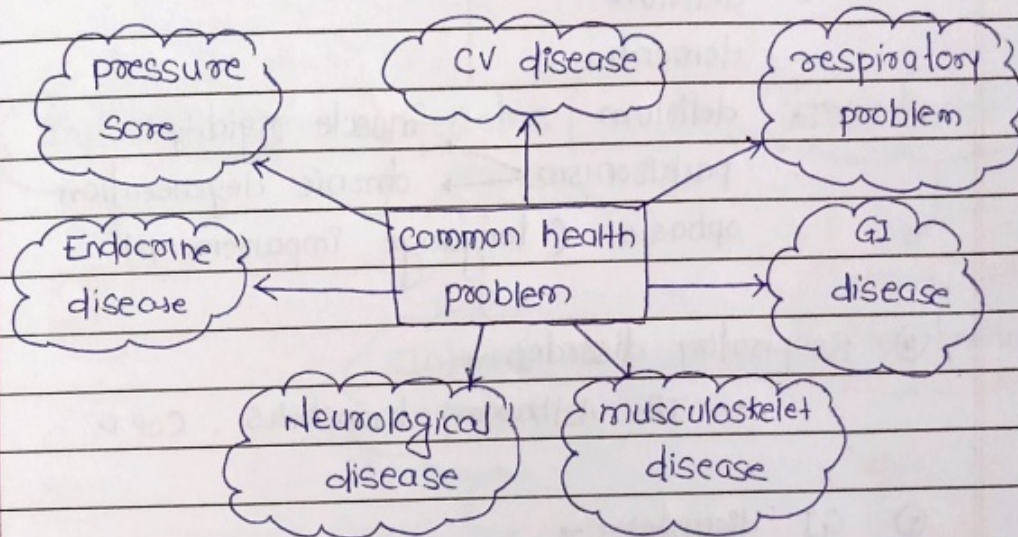
Care of Elderly patient



Q. Common Health Problem In Elder person

Ans- Introduction :

Aging is progressive, universal decline first in functional reserve.



① pressure sore →

- Also called as decubitus ulcer.
- It occurs in bedridden Pt.
- most of the elder pt. sit prolonged period of time which leads to irritation of skin.

② Cardiovascular disease →

- Every 3rd or 4th decade of life, the body function slowly.
- hypertension and hypotension most common problem.
- It occurs due to excessive stress.

③ Neurological disorder →

→ with age neuron function become slowly
- which leads to memory loss due to slower nerve impulses.

- delirium
- dementia
- delirium
- parkinsonism $\begin{cases} \rightarrow \text{muscle rigidity} \\ \rightarrow \text{chronic degeneration} \end{cases}$
- aphasia (language impairment)

④ Respiratory disorder →

- TB, Asthma, bronchitis, COPD.

⑤ GI disorder →

- ulcer
- constipation
- vomiting
- anorexia
- diarrhea

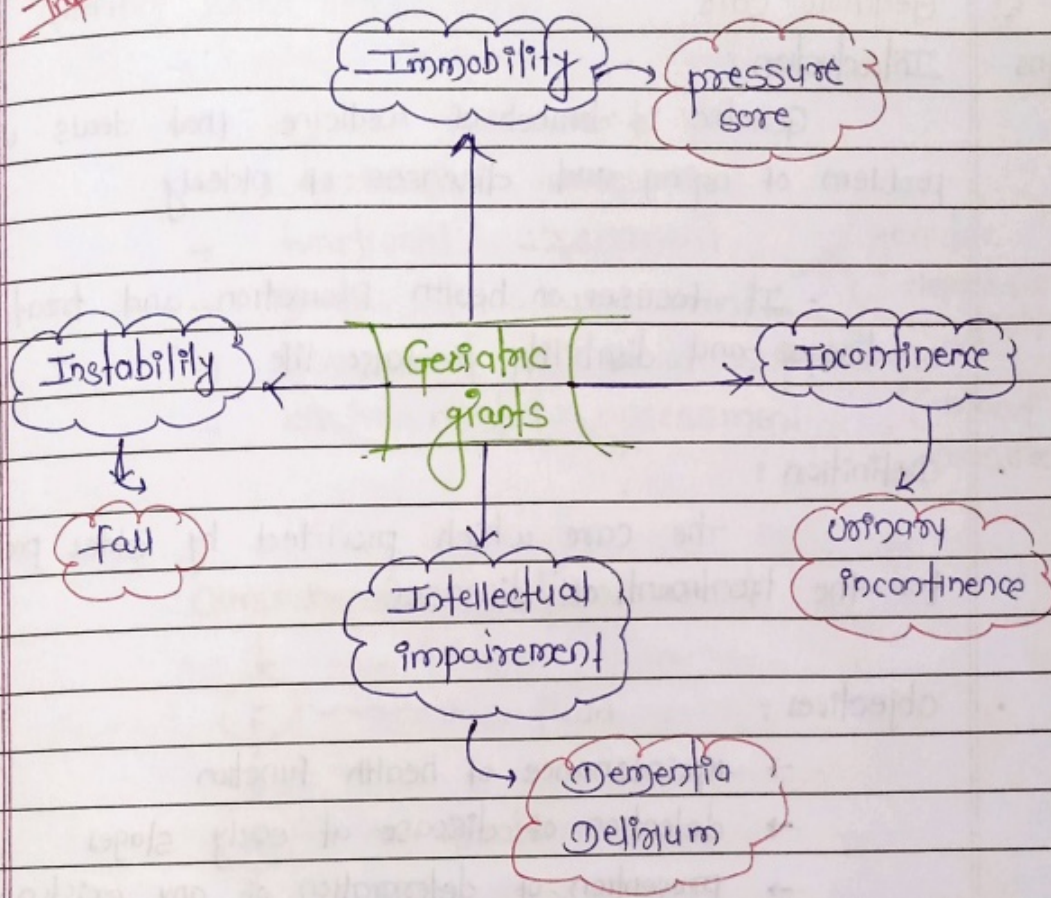
⑥ musculoskeletal s →

- arthritis, baw
- osteosclerosis
- joint pain
- fracture.

⑦ Excretory system →

- urinary incontinence

5 marks
Imp



Write down management

explain briefly

Benefits given to old age people in India.

- Indira Gandhi National old age pension scheme
400 ₹ / month (above 60 yr)
- Annapurna scheme
- Ministry of Health and family welfare
- Ministry of Railway
- Ministry of Road Transport & Highway

Q. Geriatric Care

Ans. Introduction:

Geriatric is branch of medicine that deals with problem of aging and diseases of elderly.

- It focuses on health promotion and treatment of disease and disability of later life.

• Definition:

the care which provided by elder patient for the treatment of diseases.

• Objectives:

- maintenance of health function
- detection of disease at early stages
- prevention of deterioration of any existing problem.

• principles:

- consider individuality
- communicate effectively
- encourage independence
- make elderly stay in home interesting
- provide diversion therapy
- handle them gently
- encourage them to maintain body hygiene
- protect from injuries
- ensure adequate nutrition
- help elderly to establish good sleep pattern
- caution above use of drug
- observe any psychological changes

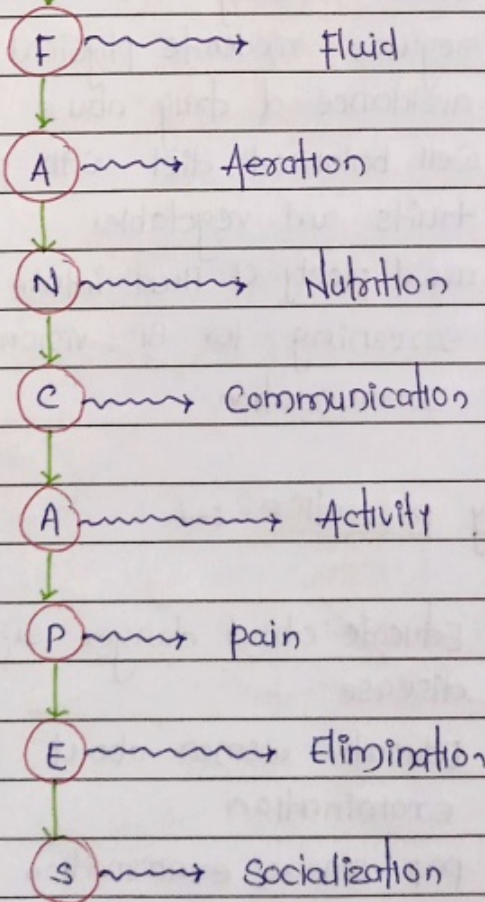
Geriatric Health Assessment :

- Health history
- physical assessment
- comprehensive assessment
- functional assessment
- mental status assessment
- assessment of social support
- environmental assessment

geriatric
depression
test/scale

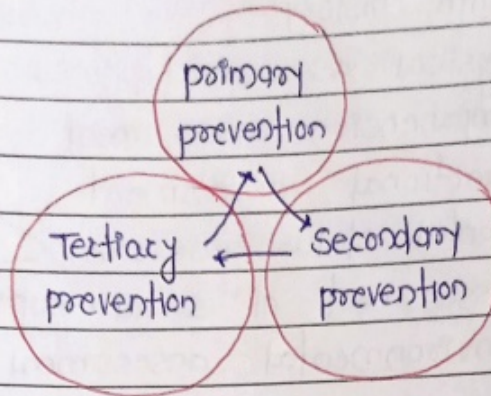
mood
measures

Comprehensive Assessment



SAG

• Care of Aged people :



1. Primary prevention :-

- control of BP, weight, diabetes
- avoid smoking and alcohol
- regular, moderate physical exercise
- avoidance of drug abuse
- well balanced diet with plenty of the fruits and vegetables
- avoid plenty of fluid intake
- screening for BP, vision, hearing
- Immunization

2. Secondary prevention :-

- Educate about danger signals of the disease
- Educate women about breast self examination
- pap smear examination

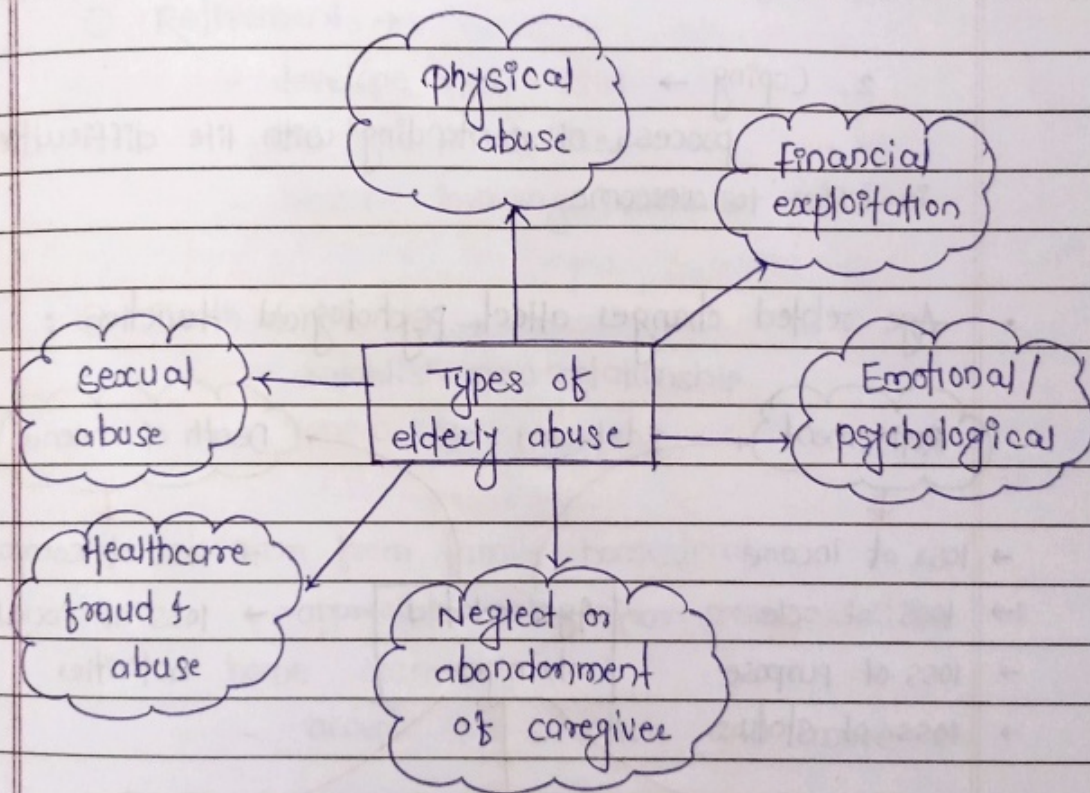
5. Tertiary prevention :-

- cataract surgery, provision of spectacles
- hearing aids
- deaddiction counselling
- establishment of old age home
- establishment of geriatric care clinics

SAG

Q. Elder Abuse

Ans.



Q. Stress and coping in Elderly patient

Ans. Introduction :

Every people suffering from the stress.
The major cause of stress in older adult is many losses that he/she experiences.

• Definition :

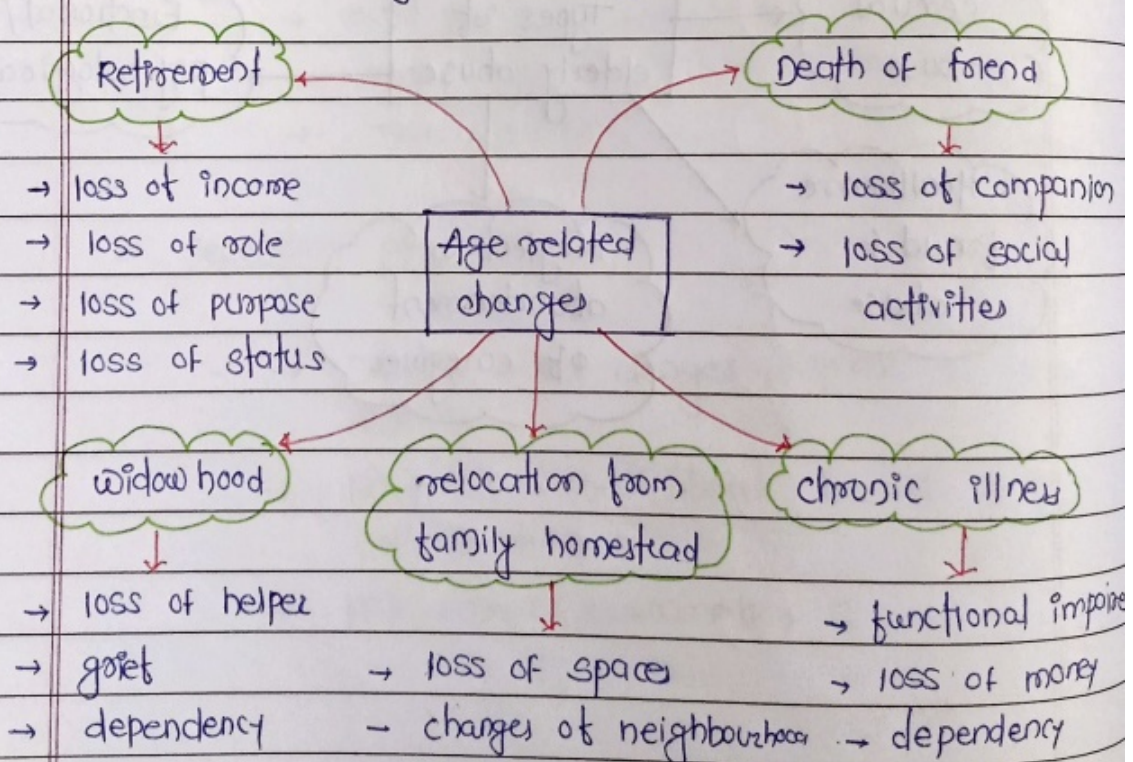
1. Stress →

It is state of mental tension and worry caused by problem in your life, work, etc.

2. Coping →

process of contending with life difficulties in effort to overcome.

• Age related changes affect psychological function :



• Risk factors that lead to poor coping :

- poor physical health
- weak social support
- lack of economy
- narrow range of coping skill
- occurrence of several major life events

• Coping Strategies :

① Retirement →

- develop new skills
- use time for hobbies
- become involving various activities

② Death of friends →

- establish new relationship.
- renew old friendship

③ relocation from family homestead →

- appreciate relief from responsibilities of home ownership.
- accept the situation and move on.

④ changes in cognitive skills →

⑤ chronic illness →

- maintain good health practices
 - nutrition
 - exercise
 - rest

• Nursing Intervention :

- Enhance self esteem
- promote sense of control
- Involve older adult for decision making
- foster social support
- address spiritual need
- Advise them to do regular exercise
- relaxation therapy
- meditation
- avoid intake of drug
- crack some joke, laugh with friends
- communicate with people
- group therapy
- music therapy
- advise them to adequate intake of food
 - plenty of fruits
 - vegetables

Critical Care Unit

CPR
Defibrillator
Date
Page
CVP
care of dying patient

Q. Critical Care Unit Set Up

Ans. Introduction :

Critical care Nursing is speciality within nursing that deals specifically with human responses to life threatening.

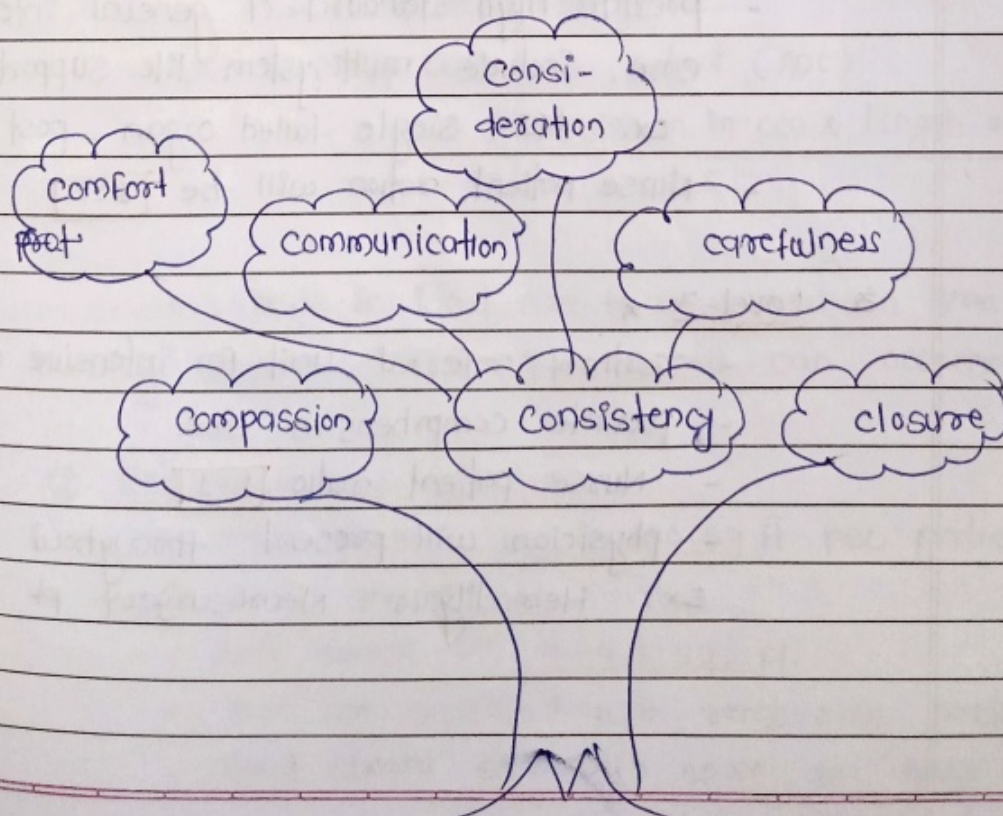
- The

Definition :

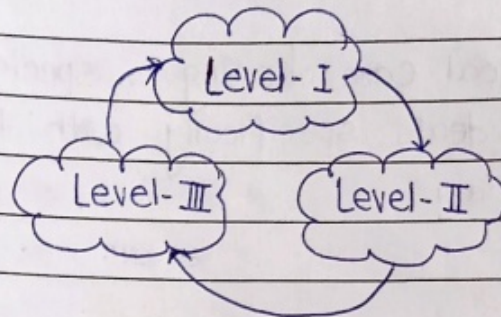
Critical care unit is the unit in which comprehensive care of critically ill patient which is deemed to recoverable

- critically care to describe care of patient who are extremely ill and whose clinical condition is unstable

C's of Critical Care :



• Level of CCU's :



1. Level-1 →

- High dependency unit which could be separate or attached to general ward.
- short term cardio-respiratory support.
- Resuscitation, ventilation, CVP for < 24 hrs.
- Medical officer will be present whenever needed

2. Level-2 →

- Located in general hospital, undertake prolonged ventilation.
- provide high standard of general intensive care, include multisystem life support
Ex. MI, single failed organ, post operative.
- Nurse patient ratio will be **1:2**

3. Level-3 →

- Tertiary referral unit for intensive care patient
- provide comprehensive care
- Nurse patient ratio **1:1**
- physician will present throughout
Ex. Hemodialysis, Neurosurgery pt

Organization of CCU :

- Location
- Design
- Bed space / floor space
- Bed strength
- Staffing → Nurses station

① Location :-

- decided based on type of patient needed
- Nearby the operating / recovery room
- It should be accessible to all department in hospital. (Emergency, radiology department, catheterization lab, blood bank)

② No. of Bed :-

- Estimation of bed need done by considering
 - No. of pt. seeking CCU care
 - average length of stay in unit
 - occupancy rate.
- Average daily census of patient (ADC)

$$ADC = \frac{\text{No. of admission in CCU} \times \text{length of stay}}{365}$$

- 6-8 beds in ideal size to be served in one nursing station. max. 10 to 12 bed can accommodated.

③ Bed space / floor space :-

- Floor space - 125 to 150 sq ft per patient is recommended
- Bed space - 4-4.5 sq. ft.
- Bed are separated with removable partition
- Head should be enough space for easy

patient access for intubation or resuscitation.

- 100 to 150% extra space recommended for nurses station, storage space, free pt. movement.

④ Nurses station :->

- this is telemonitoring device
- this will enable monitoring of patient placed ideally in 'c' or 'L' fashion.

⑤ Design :->

- U-shaped or semicircle.

⑥ Other facilities :->

- storage space
- doctor office
- nurses office
- wash room
- 16 to 18 electrical outlet recommend
- sufficient natural lighting
- hand washing facility.

⑦ Environmental context :->

- full air conditioned with control of humidity and moisture

• Equipments :

- Ventilator (1/bed)
- Non-invasive ventilators
- Multichannel monitor with at least 2 pressure monitoring devices
- Defibrillator and pace makers
- Infusion pump / syringe pump
- fluid and bed warmers
- portable transfer monitors
- portable ventilator
- specialized beds
- ECG monitor

* Every pt. should available following monitors :-

- pressure monitor
- Thermometer
- Oximeter
- ABG lab

ICU Room

- ET tube
- NG tube
- Airway
- catheter
- ECG lead
- Gloves
- Gown
- Drugs
- IV fluid
- masks

SAG

Q. principles of critical care nursing.

Ans. Introduction:

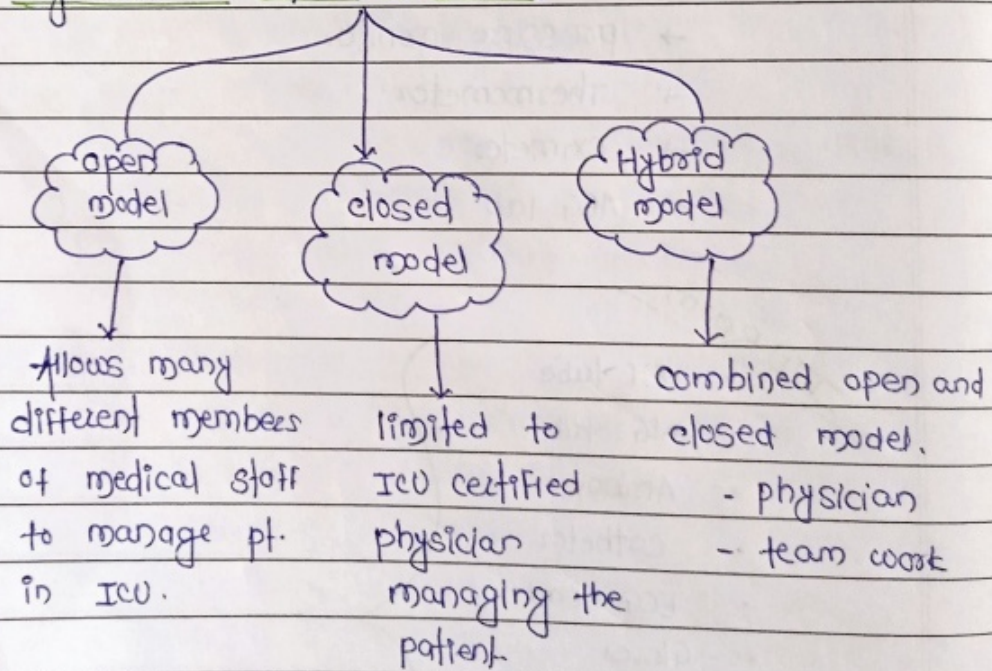
Critical care unit is arena that deals with comprehensive care with critically ill patient.

- critically care unit is specially designed and equipped facility staffed by skill personnel to provide effective care.

• Definition:

It is speciality within nursing that deals with specifically with human responses to life threatening problems.

• Organizational model of ICU:



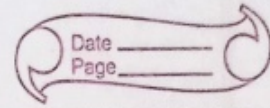
• principles of ccn :

- Anticipatory nursing care
- Early detection and prompt action
- Expertise
- Supportive care
- communication
- collaborative practice
- preservation of patient physiological integrity
- prevention of infection
- crisis intervention
- stress reduction
- Ethical principles

• Roles and Responsibilities of Critical Care Nurse :

- Assess pt. condition, planning or implement
- provide comprehensive bedside care
- provide life support
- Assist physician in performing procedure
- observe or record vital signs
- Ensure the equipment function properly
- Administer IV fluids & medication
- collaborating with fellow members
- acting as patient advocate
- document appropriately
- ensure patient safety
- promote quality assurance
- providing education

Occupational And Industrial Disorder



Q Occupational Disorder

Ans. Introduction:

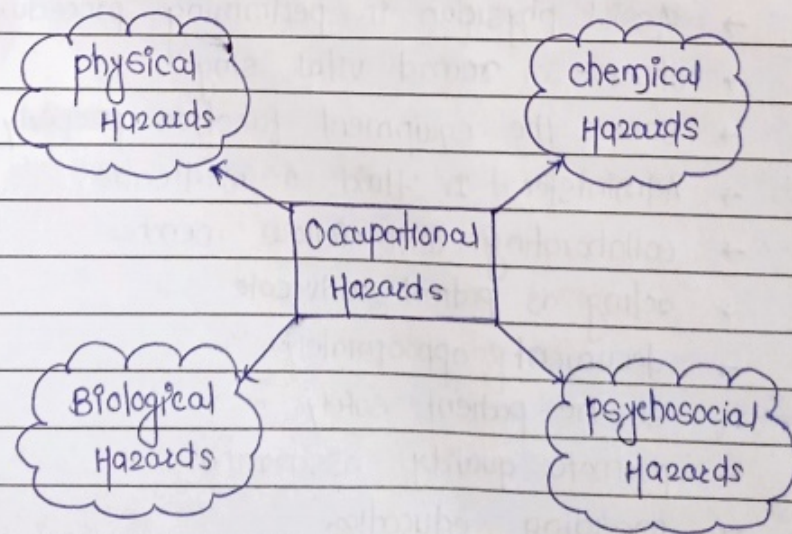
WHO defined Occupational Health as promotion and maintenance of highest degree of physical, mental and social well being of workers in all occupations

- Application of nursing principles of recognition, prevention and treatment of illness, injuries.

- Also called as Industrial Nursing.

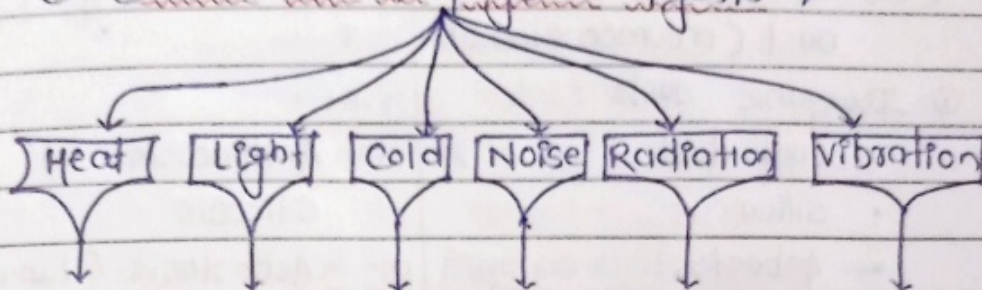
• Occupational Hazards:

- physical Hazards (Heat, light, cold, noise, radiation)
- chemical (metal, fumes, gases)
- Biological (Bacteria, fungi, virus, insects)
- psychosocial (stress, violence, bullying, sexual harassment, alcohol abuse)



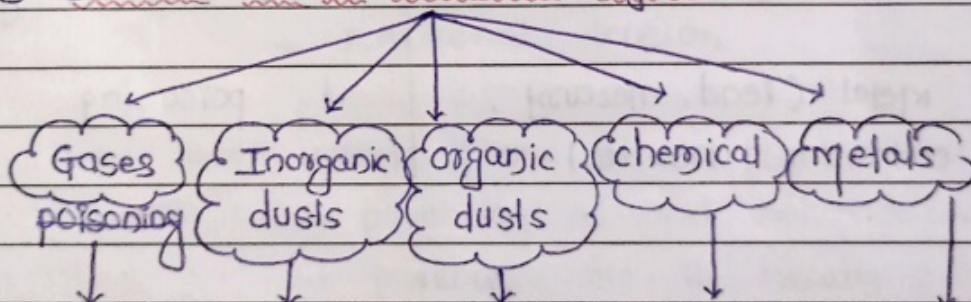
• Occupational Disorder :

① Disease due to physical Agents →



→ Heat stroke → occupa- → Hypoth- Deaf- caner osteoarthritis
 → Heat rash tional ermia ness
 cataract → Frost bite

② Disease due to chemical Agents →



Gas poisoning → coal dust → Cane Fiber → Burns
 → Silica → cotton dust → Dermatitis
 → Asbestos → Hay or → caner
 → Iron → grain dust → Respiratory illness
 (farmer's Lung)
 → Tobacco

	chemical Agent	Disease Caused
1.	Dust Gases (CO ₂ , CO, NH ₃ , H ₂ S, SO ₂)	Gas poisoning
2.	dust (pneumoconiosis)	
	① Inorganic dusts :	
	• coal dust	Anthracosis
	• silica	silicosis
	• Asbestos	Asbestosis (lung cancer)
	• Iron	Siderosis (Welder's disease)
	② Organic dusts :	
	• Cane fiber	Bragassosis
	• Cotton dust	Byssinosis
	• tobacco	Tobacosis
	• Hay dust	Farmer's lung
3.	Metal (lead, mercury, cadmium, arsenic)	poisoning

③ Diseases due to biological Agents →
people exposed to occupation like

- In Health care setting Worker →
- Hepatitis
 - Tuberculosis
 - HIV
 - Encephalitis

-18- Agricultural Workers :->

people working on animal husbandary animal products are risk of

- > zoonotic disease
- > worm infestation
- > tetanus

④ Disease due to psychosocial Agents ->

Rise when worker fails to adopt to an alien psychosocial environment which leads to psychological factors

- > Frustration
- > Lack of job satisfaction
- > poor human relationship.
- > Emotional tension

* Health effects cause due to psychosocial hazards

- > psychological and behavioural change
- > psychosomatic ill health

-> Depression

-> Anxiety

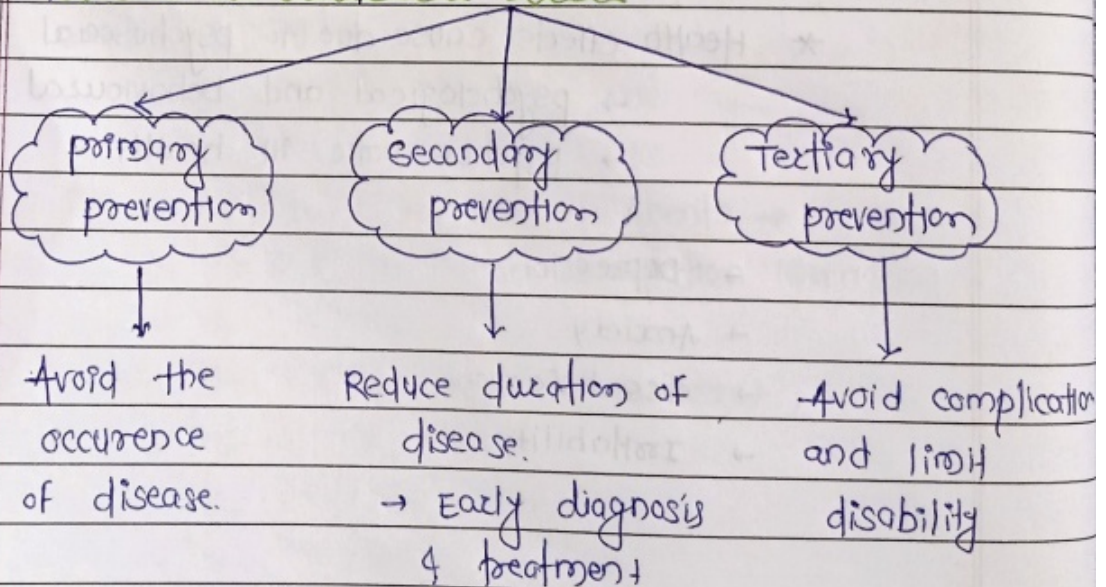
-> dissatisfaction

-> Irritability

• Measures for Health protection :

- Nutrition
- Communicable disease control
- Environmental sanitation
 - water supply
 - food
 - toilet
 - proper waste disposal
 - sufficient space
 - lighting
 - ventilation
 - protection against hazards
- mental health promotion
- Health education

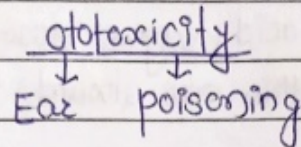
• Prevention of occupational Disease :



- Job placement
- Safety training
- control of recognized hazards

Q. Ototoxicity
Ans. Introduction:

Ototoxicity is ear poisoning which results the exposure of drug or chemical that damage inner ear.



• Definition:

certain medication or drugs can damage ear resulting hearing loss, ringing in ear, balance disorder.

damage that cause by certain effect of drug to ear. (inner ear, middle, cochlea)

• Ototoxic Drug:

- Aminoglycoside
- Diuretic
- Analgesics
- Alcohol
- Antimalarial
- Antiepileptic

• Causes:

- medication
- drug
 - Antibiotic
 - diuretic
 - β -blocker

• Pathophysiology :

sensory structure of auditory & vestibular system
lie behind blood labyrinth barrier



Only ions, amino acid, sugar essential to cellular
function within ear should transported through:



breakdown in barrier include ototoxin
that can transverse barrier



ototoxicity

• Sign and symptoms :

- No problem
- ringing the ear
- deafness
- minimal hearing loss
- balance disorder
- limited or poor speech
- problem in school while learning
- giddiness
- unsteady gait.
- vertigo
- headache
- Nausea

• Diagnostic Evaluation :

- History collection
- Hearing aid
- Electrocochleography
- otacoustic examination test
- posturography
- Auditory brainstem response

• Management :

- limited use of ototoxic drug
- periodic audiometric examination
- hearing aid
- vestibular exercise

Q. Deafness

Ans. Introduction :

- It is disease of auditory system
- There is loss of auditory function

• Definition :

Loss of hearing either temporarily or permanently

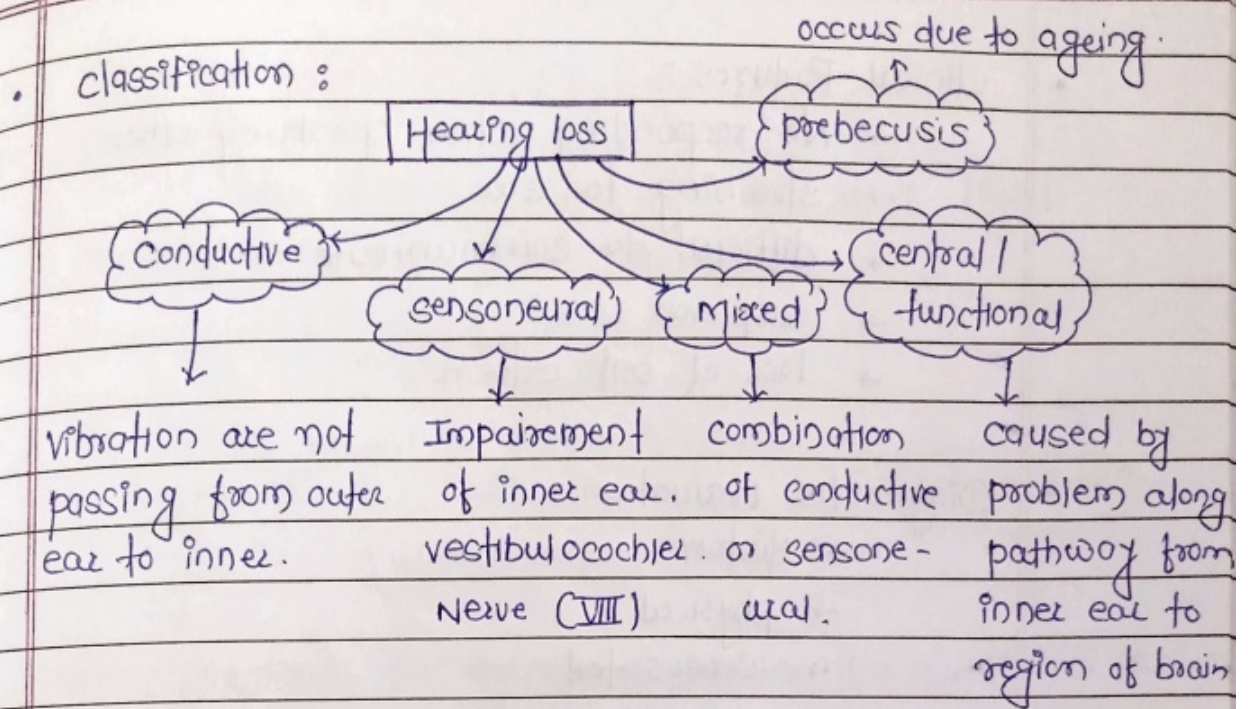
- Deafness also called as Anacusis

• Incidence :

Hearing impairment has been reported to occur 3 of every 1000 births

• Etiology :

- Foreign body
- Middle ear disorder
- otosclerosis
- prolonged exposure to noise
- meningitis
- trauma
- congenital
- stenosis of external ear
- Impacted earwax.



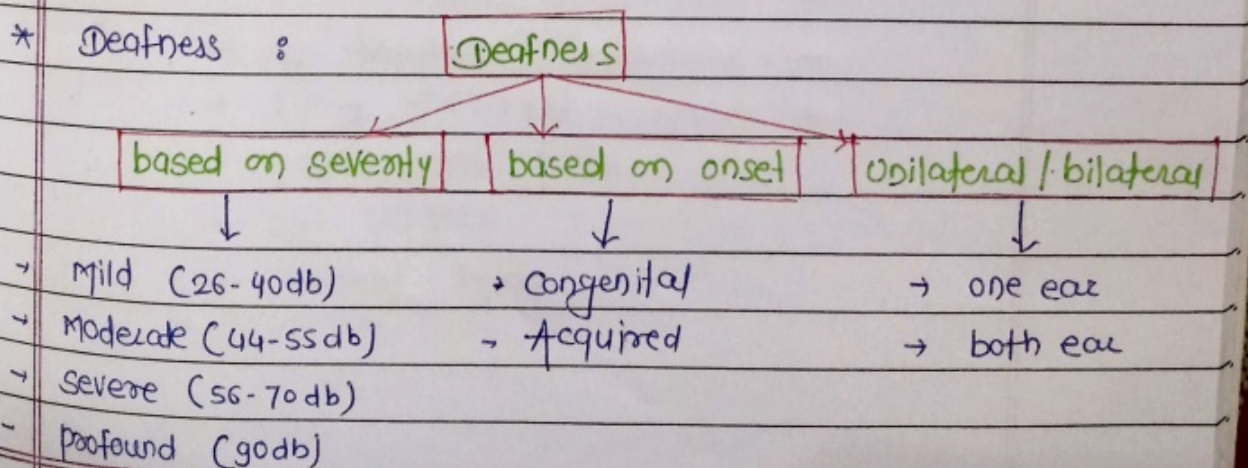
pathophysiology :

Damage to outer, middle, inner ear
aging process

↓
due to exposure to loud sound

↓
cause wear and tear on hair or nerve cell in cochlear that send sound to brain

* Deafness :



- Clinical Features :

- No responding when speaking other
- straining to ear
- difficult to communicate
- suspicion
- loss of self esteem

- Diagnostic Evaluation :

- History
- physical
- Weber's test
- Audiometry
- Auditory brain stem response
- microphone

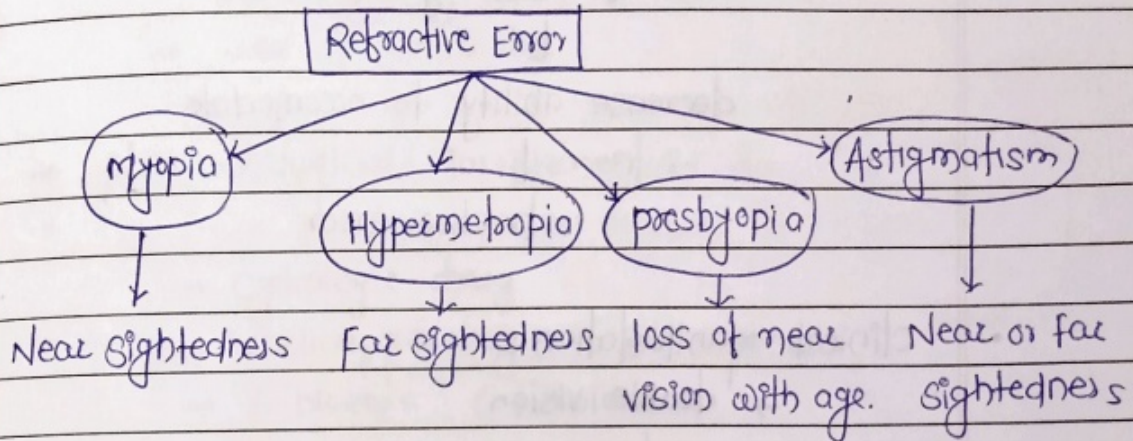
- Control and prevention :

- Avoid using cytotoxic drug
- avoid exposure to loud noise
- protect ear from injury
- monitor hearing ability
- do not pouring hot oil into ears
- No buds, pin insert into ear

Q. Refractive Error.

Ans. Introduction:

The shape of eye does not bend light correctly resulting blurred image.



• Definition:

problem with focusing of light on retina.

- The shape of eye does not bend light properly resulting blurred image.

• Etiology:

- Infection
- Injury due to optic nerve damage
- UV radiation
- Eye diseases
- Aging (>45y)
- Environmental factors
- Eye surgery
- corneal injury.

- pathophysiology :

due to etiological factor



degenerative changes causes by gradual loss of elasticity of lens



decrease ability to accomodate



refractive error

- Clinical manifestation :

→ double vision

→ unclearness

→ halos around bright light

→ headache

→ blurred vision

→ double vision

→ eye irritation

- Diagnostic Evaluation :

→ History taking

→ corneal topography

→ split lamp exam

→ tonometry (measure ICP)

→ Retinoscopy

• Medical Management :

- Identify cause and eliminate cause
- lens correction
- prevention of foreign particle enter in eye
- use of sunglasses
- use of antibiotic

* pharmacological Management :-

- cycloplegic drug
- cholinergic drug (pilocarpine)
- β -blocker (timolol)

• Surgical Management :

- Lasik (Laser eye surgery)
- keratomileusis (reshaping the corneal surface)
- keratoplasty.
- LASEK
- photo Refractive keretotomy (PRK)

• Nursing Management :

- Administration of IV fluid
- right documentation
- monitor vital signs, blood gas
- Assess pt. for previous allergy
- observe response to treatment

Q. Meniere's Disease

Ans. Introduction :

- First described by Prosper Meniere in 1861.
- Also called is Balance Disorder
- Also known as Endolymphatic Hydrops.

• Definition :

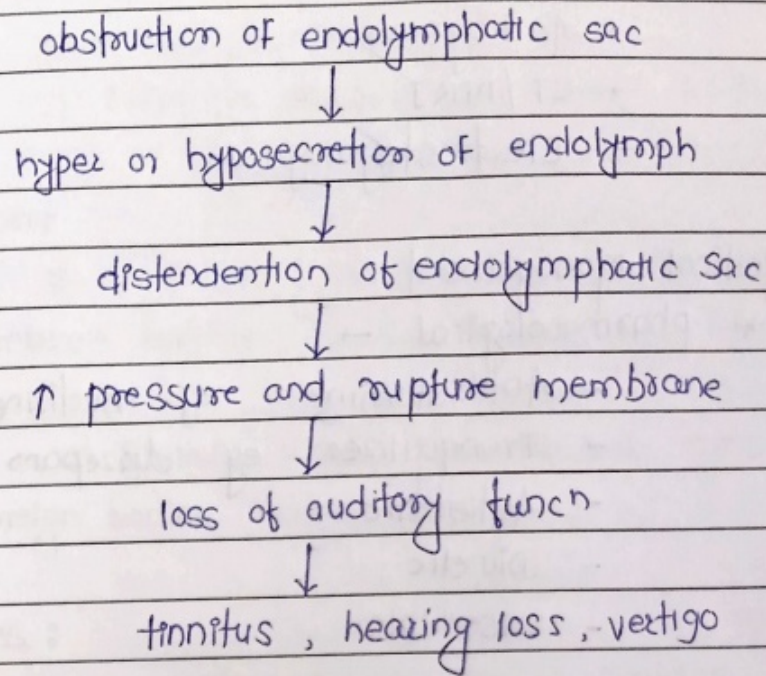
Abnormal ear fluid balance caused by malabsorption in endolymphatic sac.

- It occurs bilaterally in about 20% of patients.

• Etiology :

- Unknown
- Age (40 to 60 yrs)
- men than
- family history
- Allergy
- viral infection
- hormonal imbalance
- mental stress
- deficit membrane permeability
- hypersecretion or hyposecretion of endolymph.

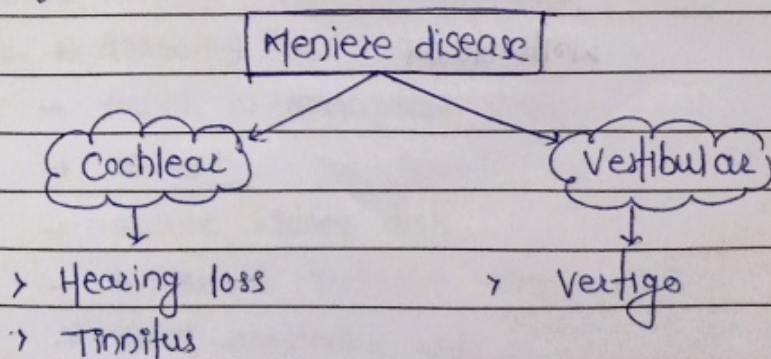
• pathophysiology :



• clinical manifestation :

- Tinnitus
- vertigo (2 to 4 hrs)
- headache
- fullness in ear
- irritability
- depression
- withdrawal
- hearing loss

• Types :



- Diagnostic Evaluation :

- History
- Audiogram
- CT / MRI
- Electroencephalogram

- Medical Management :

- * pharmacological →

- Antihistamine eg. meclizine
- Tranquilizer eg. diazepam
- Antiemetic
- Diuretic
- vasodilator.

- * Dietary →

- low sodium
- limit intake of coffee, tea
- limit alcohol intake

- Surgical Management :

- Endolymphatic sac procedure
- vestibular nerve section

- Nursing Management :

Write down

Q Eye Irrigation

Ans

Introduction:

- It is an cleansing method.
- It helps to remove the foreign bodies

Definition:

It is an eye cleansing method that people use to remove buildup of foreign bodies

- It involves inserting liquid into eyes to flush the foreign bodies.

Purposes:

- To remove foreign bodies buildup, which can cause following symptoms.
 - vision loss
 - photophobia
 - Itching
 - pain
- To treat foreign bodies
- To treat chemical injuries
- used preoperatively to prepare eye for surgery to manage infection.

Equipment:

- dressing
- towel or waterproof cape
- IV set
- sterile kidney dish
- universal indicator strips
- local anesthetic drop

- sterile irrigating fluid (NaCl solⁿ 0.9%, sterile water for irrigation / RL)
- Bottle of fluid.

* procedure of Eye Irrigation :

1. Before procedure →

- Explain procedure to pt., check for any allergies
- Wash hands with soap and water
- put on gloves and apron
- Ensure the patient privacy.
- Check the pH, if possible
- Administer local anesthetic eye drops.

2. During procedure →

- Assembled equipment
- provide comfortable posⁿ (sitting or lying)
- cover pts. neck and shoulder with towel.
- Hang bag of irrigation fluid on IV stand and attach to IV set.
- Ask pt. to turn their head toward affected side and placed kidney dish next to their cheek.
- Tell pt. irrigation is going to start irrigate from inner to outer canthus.
- continue irrigation for 30 min.
- wash upper and lower eye lid, dry them by cotton swab.
- pH should be checked

3. After procedure →

- Remove towel or cape from pts. Shoulder and dispose equipment.
- Remove apron and glove.
- decontaminate hand, record procedure.
including pH, amount of irrigation fluid used, length of irrigation.

V.IMP

Q. Head Injury

Ans. Introduction:

Also termed as head trauma to head specifically to brain itself.

- It refers to trauma to head. this may or may not include injury to brain.

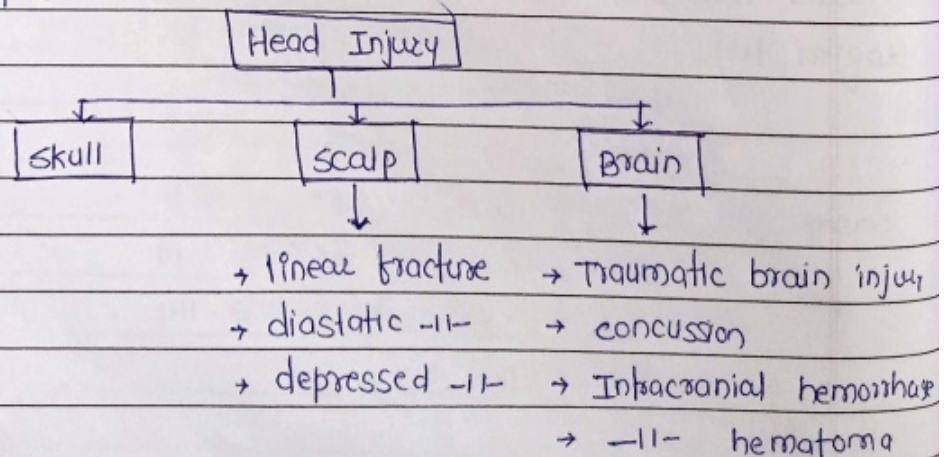
• Definition:

Head injury includes any trauma to scalp, tr. skull, brain tissue either singly or collectively.

• Causes :

- penetrating trauma
- blunt head trauma
- accident
- assaults
- fall by any activities
- sport injuries
- violence and abuse

• Types :



• pathophysiology :

due to etiological factor



brain swelling or bleeding



↑ Intracranial pressure



pressure on blood vessel within brain, blood flow slow



cerebral hypoxia



cerebral blood flow ceases

• clinical manifestation :

→ Alter consciousness

→ confusion to coma

→ ↑ ICP

→ headache

→ agitation

→ pupillary abnormalities

→ respiratory changes

→ altered perception

→ impaired mental function

→ lethargy

→ ataxia

→ altered sleep

→ ↑ mood swings

- Diagnostic Evaluation:

- History taking
- physical Examination
- CT scan and MRI
- X-ray
- PET
- Angiography
- Neuropsychological test
- Neurological assessment (GCS)

- Medical Management :

- Antibiotic
- Antiepileptic
- management of ICP
 - administer mannitol
 - O₂
 - barbiturate
 - glucocorticoid
- Analgesic

- Surgical Management :

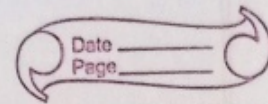
- Evacuation of blood clots
- debridement
- elevation of depressed fracture
- craniotomy

• Nursing Management :

- Assess neurologic and respiratory status
- Monitor and record vital sign, intake and output
- observe sign of ↑ ICP to avoid treatment delay
- Assess for CSF leak.
- Administer IV fluid to maintain hydration
- Administer O₂
- provide suctioning
- maintain seizure precaution
- provide comfort, quiet room
- Advise to adequate intake of rest
- keep head of bed elevated 30°
- Encourage pt. to express feeling
- provide eye, skin, mouth care
- administer medication as prescribed

step

CRISIS INTERVENTION



Q. Crisis Intervention

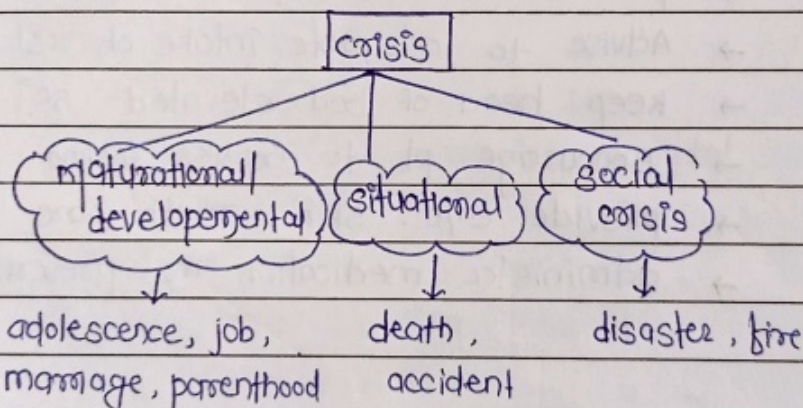
Ans- Introduction:

Crisis is disturbance caused by stressful event or perceived threat.

- They may social, psychological, biological in nature.

• Definition of crisis:

State of disequilibrium resulting from interaction of an event with individual and family coping mechanism, which is inadequate to meet demands of situation.

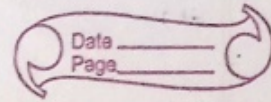


• Definition of crisis intervention:

It is a technique used to help an individual or family to understand and cope with intense feelings about crisis.

- Method which helps to individuals who experience an event that produces emotional, mental, physical distress.

Time for C.I = 20 - 2 hr



Aims :

→ To assess individual in recovery from crisis

purpose :

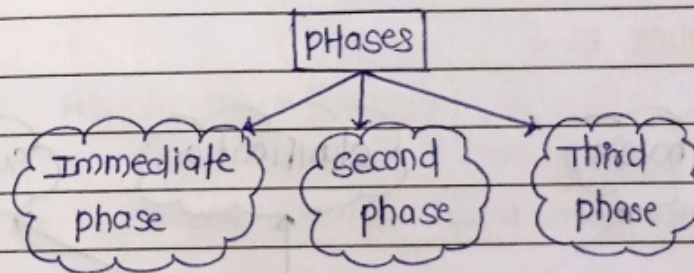
→ To reduce intensity of emotion, mental

→ To help individual return to their normal state

places of Intervention :

school, counselling center, mental health,
clinic school, social service agencies, crisis center

phases of crisis Intervention :



1. Immediate phase / psychological first aid :→

- Establish rapport with victim, gather information.

- caring for medical, physical, mental health and personal need of victim. provide information to victim about local resources.

2. Second phase →

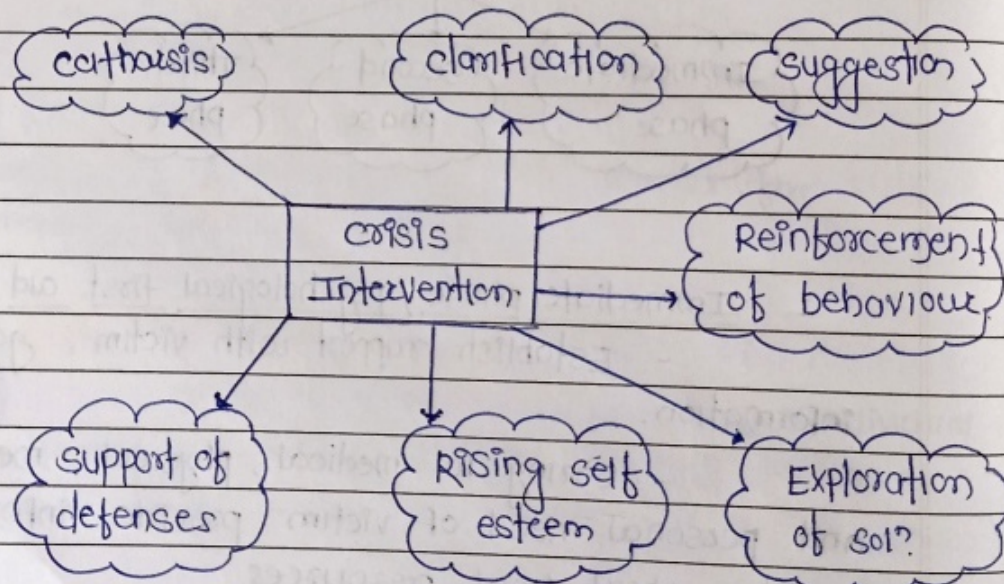
Assessment of need to determine the service and resources required by victim in order to provide emotional support to victim.

3. Third phase →

Recovery intervention helps victims reestablish their and becomes healthy again.

- It also involves helping the victim prevent further victimization from criminal justice system, other agencies.

• Techniques :



1. Catharsis →

- The release of feelings.
- repression.

2. clarification →

Encourage pt. to express more clearly about that event.

3. suggestion →

Influence person to accept idea or belief

4. Reinforcement of behaviour →

Giving pt. positive response to the adaptive behaviour.

5. supporting of defences →

Encourage use of healthy, adaptive defences.

6. Rising self esteem →

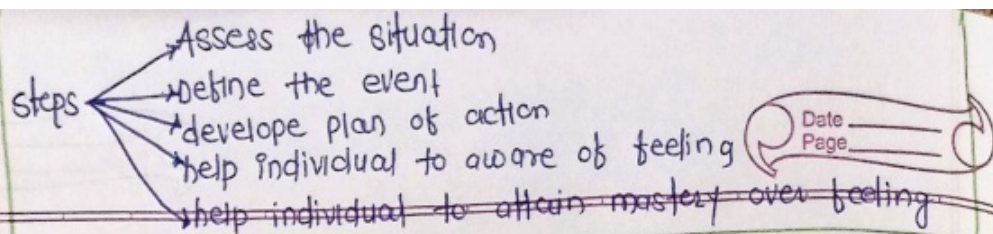
Help pt. to regain feeling of self worth.

ex. you are strong; you can do it.

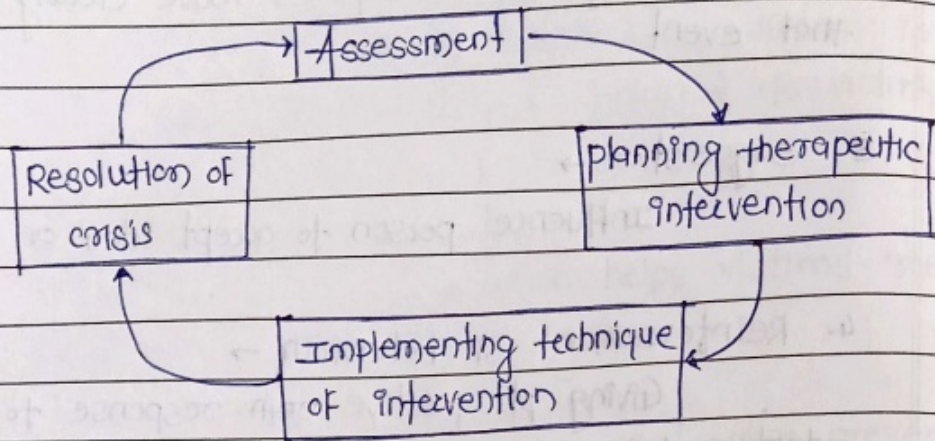
7. Exploration of solⁿ →

Examining alternative ways of solving immediate problem.

- Identify best solⁿ.
- Strengthen the ideas
- explore feelings



• Steps in Crisis Intervention / Nurse's Role : (1982)



1. Assessment →

- What has happened ? Identity problem
- Who is involved ?
- What is causes ?
- Where situation occur ?

3. planning therapeutic intervention →

It depends on prelisting skill, creativity, flexibility of worker, response of pt.

- The worker helps person to establish intellectual understanding of crisis.

→ noting relationship betⁿ factor and crisis

4. Resolution →

- Reduce tension and anxiety
- Assist plan for future and given opportunity to discuss how present experience help in future for coping