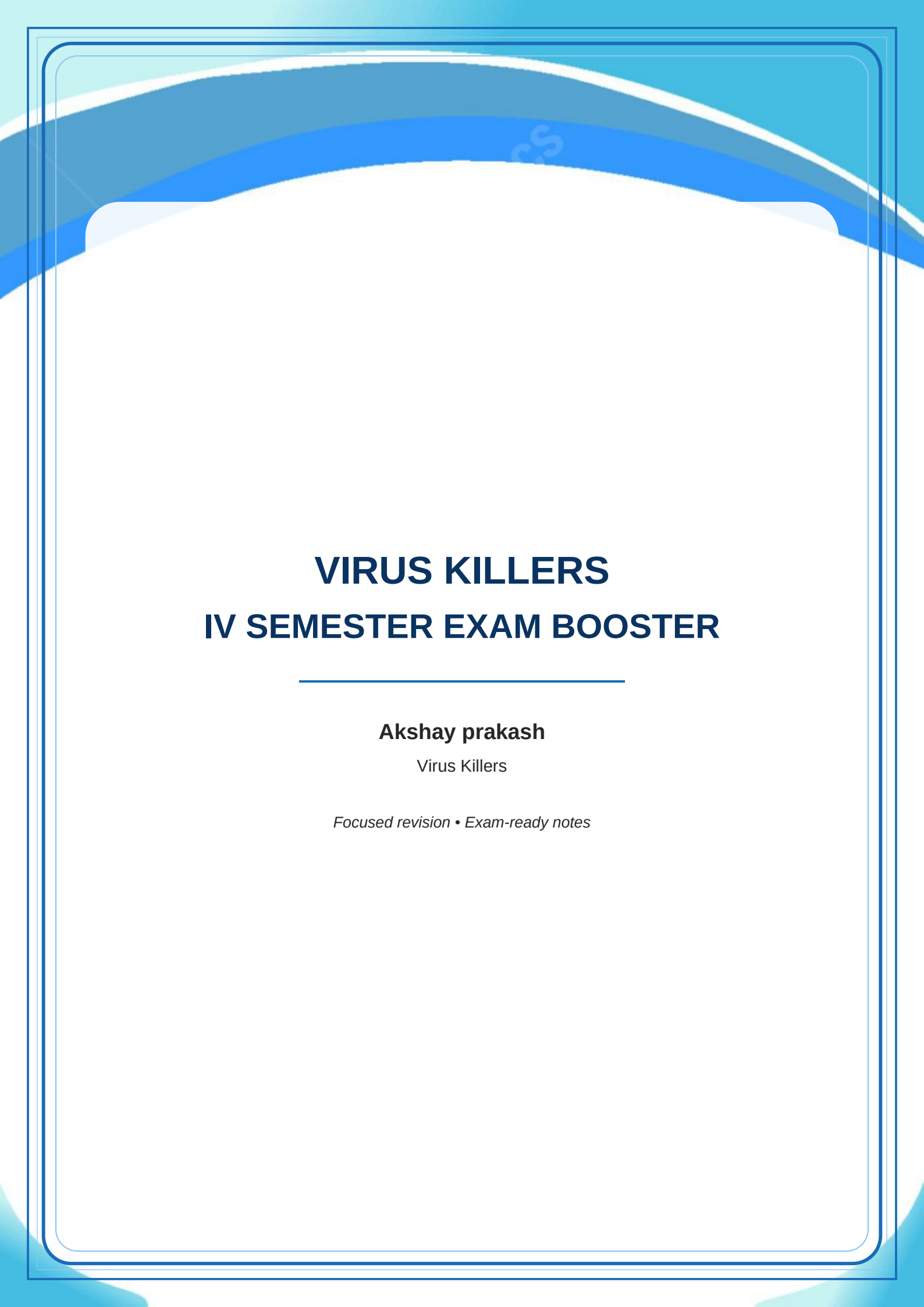




VIRUS KILLERS

IV SEMESTER EXAM BOOSTER

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Virus Killers

Focused revision • Exam-ready notes

INDEX

- 1. Pharmacology I & II — Give Reason
- 2. Pathology I, Pathology II & Genetics — Difference Between + List Down
- 3. Adult Health Nursing II — Difference Between + Give Reason

1. PHARMACOLOGY I & II — GIVE REASON

1. Why Pharmacokinetics important in drug therapy?

- Explains absorption, distribution, metabolism and excretion.
- Helps predict drug concentration and duration of action.
- Supports safe selection of dose and dosing interval.

2. Why Half-life is significant in determining dosing intervals?

- Indicates how quickly drug concentration falls.
- Helps estimate duration of action.
- Helps determine appropriate dosing intervals and accumulation.

3. Why Phenol is used as a disinfectant?

- Damages microbial membranes and denatures proteins.
- Acts against many bacteria and some fungi.
- Useful for disinfection of suitable non-living surfaces.

4. Why Antiseptics are preferred over disinfectants for skin preparation?

- Antiseptics are formulated for living tissue.
- They are less damaging to skin at appropriate concentrations.
- Disinfectants are intended mainly for inanimate surfaces.

5. Why PPIs are given in the morning?

- They inhibit active gastric proton pumps.
- Pre-meal administration allows action when meal-stimulated pumps become active.
- This gives effective daytime acid suppression.

6. Why Antacids are used for heartburn relief?

- Neutralize existing gastric acid.
- Raise gastric pH.
- Provide relatively rapid symptomatic relief.

7. Why Omeprazole is used in peptic ulcer disease?

- Inhibits gastric H⁺/K⁺-ATPase.
- Strongly reduces acid secretion.
- Promotes ulcer healing and symptom relief.

8. Why Ondansetron is used in chemotherapy-induced nausea?

- Chemotherapy can trigger serotonin release.
- Ondansetron blocks 5-HT₃ receptors in the vomiting pathway.
- Reduces nausea and vomiting.

9. Why Lansoprazole/PPIs are used in GERD?

- Suppress gastric acid secretion.
- Reduce acid exposure to oesophagus.
- Promote healing of reflux oesophagitis.

10. Why Morphine is contraindicated/cautioned in asthma?

- Can depress respiration.
- May cause histamine-related bronchoconstriction in susceptible patients.
- Respiratory status must be monitored.

11. Why Beta blockers are contraindicated/cautioned in asthma?

- Non-selective blockade prevents β_2 bronchodilation.
- May increase airway resistance/bronchospasm.
- Therefore non-selective agents are generally avoided in susceptible patients.

12. Why Salbutamol inhaler is used in bronchospasm?

- Stimulates β_2 receptors.
- Relaxes bronchial smooth muscle.
- Rapidly improves airflow when inhaled.

13. Why Bronchodilators are used in asthma?

- Asthma causes reversible bronchoconstriction.
- Bronchodilators relax airway smooth muscle.
- They improve airflow and relieve wheeze.

14. Why Expectorants such as guaifenesin are used in cough?

- Increase/loosen respiratory secretions.
- Make mucus easier to expel.
- Useful mainly for productive cough with thick secretions.

15. Why Corticosteroids have a role in COPD?

- Reduce airway inflammation.
- May reduce exacerbations in selected patients.
- Their main effect is anti-inflammatory, not direct bronchodilation.

16. Why Oxygen therapy is used in chronic respiratory failure?

- Corrects hypoxaemia.
- Improves oxygen delivery to tissues.
- Requires appropriate monitoring in chronic respiratory disease.

17. Why Antitussives such as codeine suppress cough?

- Reduce the cough reflex through central action.
- May relieve troublesome dry cough.
- Not preferred when effective mucus clearance is required.

18. Why Beta blockers should be avoided/cautioned with insulin?

- Can mask tachycardia, a warning sign of hypoglycaemia.
- Non-selective agents may impair recovery from hypoglycaemia.
- Glucose monitoring is important.

19. Why Enalapril is used in hypertension?

- ACE inhibition lowers angiotensin II formation.
- Reduces vasoconstriction and aldosterone effect.
- Lowers vascular resistance and blood pressure.

20. Why Vitamin K is used in oral anticoagulant toxicity?

- Needed for hepatic synthesis of clotting factors.
- Counteracts excessive vitamin-K antagonist effect.
- Helps restore coagulation when indicated.

21. Why Beta blockers are used in chronic heart failure?

- Reduce harmful chronic sympathetic stimulation.
- Lower heart rate and myocardial oxygen demand.
- Selected agents improve outcomes in chronic heart failure.

22. Why Enalapril is contraindicated in pregnancy?

- ACE inhibition can harm the fetal renin–angiotensin system.
- Can cause serious fetal/neonatal complications.
- A suitable alternative is required in pregnancy.

23. Why ACE inhibitors are used cautiously with potassium-sparing diuretics?

- Both can increase serum potassium.
- Combined use can cause hyperkalaemia.
- Potassium/renal function monitoring is needed.

24. Why Diltiazem is avoided in AV block?

- Slows AV nodal conduction.
- Can worsen existing AV block.
- May cause significant bradycardia or higher-grade block.

25. Why Digoxin is cautioned in hypokalaemia?

- Low potassium increases cardiac sensitivity to digoxin.
- Risk of toxicity and arrhythmia increases.
- Potassium should be monitored.

26. Why Statins are contraindicated in pregnancy?

- Cholesterol pathways are important in fetal development.
- Statin exposure is therefore avoided during pregnancy.
- Lipid management needs an appropriate alternative.

27. Why Nitrate-free interval is used during long-term nitrate therapy?

- Continuous exposure produces tolerance.
- A drug-free period restores responsiveness.
- Maintains therapeutic effect.

28. Why Sublingual nitroglycerin is used in acute anginal attack?

- Sublingual absorption is rapid.
- Reduces preload and myocardial oxygen demand.
- Suitable for rapid symptom relief.

29. Why Atropine is used in organophosphorus poisoning?

- Blocks muscarinic cholinergic effects.
- Reduces excessive secretions, bronchoconstriction and bradycardia.
- Important component of emergency management.

30. Why Morphine sulfate may be administered in acute MI?

- Relieves severe pain/distress in selected cases.
- May reduce sympathetic stress and oxygen demand.
- Use depends on current clinical assessment.

31. Why ACE inhibitors cause dry cough?

- Reduce bradykinin breakdown.
- Bradykinin-related airway stimulation can cause cough.
- Cough is usually dry and persistent.

32. Why Atorvastatin can be taken consistently; morning dosing is usually acceptable?

- Atorvastatin has a long half-life.
- Short-acting statins have greater nocturnal timing considerations.
- For atorvastatin, consistent daily timing is more important than morning versus night.

33. Why Amiodarone is used in cardiac arrhythmias?

- Alters several cardiac ion-channel effects.
- Slows conduction and prolongs refractoriness.
- Helps control selected significant arrhythmias.

34. Why Streptokinase/fibrinolytic therapy has a role in acute MI?

- Promotes plasmin formation.
- Plasmin breaks down fibrin in a thrombus.
- Can restore coronary flow in appropriate eligible patients.

35. Why Warfarin is used in atrial fibrillation?

- AF causes atrial blood stasis.
- Thrombi can embolize and cause stroke.

- Anticoagulation reduces thromboembolic risk in suitable patients.
36. Why Metformin is contraindicated/cautioned in significant kidney disease?
- Renal clearance is important.
 - Accumulation increases risk of lactic acidosis.
 - Renal function is assessed before and during therapy.
37. Why Antithyroid drugs are administered in hyperthyroidism?
- Reduce thyroid hormone synthesis or availability.
 - Control hyperthyroidism and its symptoms.
 - Choice depends on cause and patient factors.
38. Why Levothyroxine is used in hypothyroidism?
- Synthetic T4 replaces deficient thyroid hormone.
 - Supports normal metabolism.
 - Converted peripherally to active T3.
39. Why Glucocorticoids have a role in adrenal insufficiency?
- Replace deficient glucocorticoid activity.
 - Support vascular responsiveness and metabolism.
 - Prevent manifestations of cortisol deficiency.
40. Why Rapid-acting insulin analogues such as lispro are used in diabetes?
- Rapid onset matches meal-related glucose rise.
 - Short duration gives flexible prandial control.
 - Used as part of individualized insulin therapy.
41. Why Corticosteroids are not the primary treatment for endogenous Cushing syndrome?
- Cushing syndrome involves cortisol excess.
 - Treatment aims to remove/suppress the source of excess cortisol.
 - Steroid replacement may be needed after definitive treatment if adrenal suppression occurs.
42. Why Topical hydrocortisone is used in eczema?
- Reduces local inflammation.
 - Relieves redness, swelling and itching.
 - Appropriate potency/duration limits adverse effects.
43. Why Terbinafine is used in fungal infections?
- Inhibits fungal squalene epoxidase.
 - Disrupts ergosterol synthesis.
 - Damages fungal cell membranes and inhibits growth.
44. Why Diphenhydramine/antipruritics are used in allergic skin reactions?
- Histamine contributes to itching.
 - H1 blockade reduces histamine-mediated pruritus.
 - Sedating agents can reduce awareness of itching.
45. Why Tetracyclines should not be given with milk, iron and antacids?
- Cations bind tetracyclines.
 - Poorly absorbed complexes form.
 - Drug absorption and effectiveness may fall.
46. Why Metronidazole is used in amoebiasis?
- Active against *Entamoeba histolytica* trophozoites.
 - Reactive metabolites damage susceptible microbial DNA.
 - Used in appropriate amoebic infection.
47. Why Tetracyclines are contraindicated in pregnancy and young children?

- Bind calcium in developing teeth and bone.
- May cause permanent tooth discoloration and affect bone growth.
- Therefore generally avoided in pregnancy and children below 8 years.

48. Why Penicillins are used in bacterial infections?

- Inhibit bacterial cell-wall synthesis.
- Kill susceptible bacteria.
- Do not treat viral infections.

49. Why Antihistamines are effective in allergic rhinitis?

- Block H1 receptors.
- Reduce sneezing, itching and rhinorrhoea.
- Control histamine-mediated symptoms.

50. Why Amoxicillin may be prescribed for acute otitis media?

- Common bacterial causes may be susceptible.
- Inhibits bacterial cell-wall synthesis.
- Choice depends on local guidance and patient factors.

51. Why Clotrimazole is used for oral thrush?

- Oral thrush is commonly caused by Candida.
- Interferes with fungal membrane sterol synthesis.
- Inhibits fungal growth.

52. Why Lidocaine is used in ENT procedures?

- Blocks voltage-gated sodium channels.
- Prevents sensory nerve impulse transmission.
- Produces reversible local anaesthesia.

53. Why Tamsulosin is used in BPH?

- Blocks α_1A receptors in prostate/bladder neck.
- Relaxes smooth muscle.
- Improves urinary flow and lower urinary tract symptoms.

54. Why Mannitol is contraindicated/cautioned in renal failure?

- Renal excretion is important.
- Accumulation can cause fluid shifts/volume overload.
- Renal and cardiovascular status must be considered.

55. Why Spironolactone is combined with hydrochlorothiazide?

- Thiazide causes potassium loss.
- Spironolactone is potassium-sparing.
- Combination can improve potassium balance while producing diuresis.

56. Why Furosemide is used cautiously with aminoglycosides?

- Both can cause ototoxicity.
- Combined exposure increases risk of hearing/vestibular injury.
- Renal and auditory monitoring are important.

57. Why NSAIDs reduce the effect of diuretics?

- Inhibit renal prostaglandins.
- Can reduce renal blood flow and natriuretic response.
- May promote sodium and water retention.

58. Why Aliskiren is used in hypertension?

- Directly inhibits renin.
- Reduces angiotensin I/II formation.
- Lowers vasoconstriction and aldosterone activity.

59. Why Acetazolamide is used as a diuretic?

- Inhibits carbonic anhydrase.
- Decreases bicarbonate reabsorption.
- Increases urinary sodium/bicarbonate; diuretic effect is relatively weak.

60. Why Potassium-sparing diuretic is given with thiazide?

- Thiazide causes potassium loss.
- Potassium-sparing agent reduces potassium excretion.
- Combination may improve potassium balance.

61. Why Morphine is contraindicated/cautioned in head injury?

- May depress respiration and consciousness.
- Can interfere with neurological assessment.
- Respiratory depression may increase CO₂ and worsen intracranial pressure.

62. Why Local anaesthetic effect is less in inflamed/infected tissue?

- Inflamed tissue is acidic.
- More drug becomes ionized and crosses nerve membranes poorly.
- Increased blood flow can also reduce local effect.

63. Why Ethanol is used in methyl alcohol poisoning?

- Competes for alcohol dehydrogenase.
- Reduces formation of toxic methanol metabolites.
- Toxicology management requires urgent specialist care.

64. Why Diazepam may be preferred to phenobarbitone as a sedative in some settings?

- Benzodiazepines generally have a wider safety margin.
- Less severe respiratory/cardiovascular depression when used alone.
- Choice depends on indication and patient factors.

65. Why Diazepam is used in status epilepticus?

- Enhances GABA-A inhibition.
- Acts rapidly to terminate seizure activity.
- Used in emergency anticonvulsant management.

66. Why Barbiturates are not preferred for insomnia; benzodiazepines have a wider safety margin?

- Barbiturates have a narrower therapeutic index.
- They can cause marked CNS/respiratory depression.
- Benzodiazepines generally have a wider safety margin but still carry dependence risks.

67. Why Phenytoin causes gum hypertrophy?

- Alters gingival fibroblast/connective-tissue activity.
- Plaque and inflammation worsen enlargement.
- Good oral hygiene reduces severity.

68. Why Adrenaline is used in anaphylactic shock?

- α_1 vasoconstriction raises blood pressure.
- β_2 bronchodilation improves airway obstruction.
- It also reduces mediator release from mast cells.

69. Why Adrenaline is combined with local anaesthetics?

- Causes local vasoconstriction.
- Slows systemic absorption.
- Prolongs local effect and may reduce bleeding.

70. Why Pre-anaesthetic medications are administered before general anaesthesia?

- Reduce anxiety/secretions and prepare the patient.
- May enhance desired anaesthetic effects.

- Choice depends on patient and procedure.
71. Why Aspirin is contraindicated/cautioned in susceptible asthmatics?
- NSAIDs can trigger bronchospasm in aspirin-sensitive patients.
 - This relates to altered arachidonic-acid mediator pathways.
 - Alternative analgesic/antipyretic may be required.
72. Why Indomethacin is cautioned with warfarin?
- Both increase bleeding risk.
 - NSAIDs impair platelet function and can injure GI mucosa.
 - Combined use can markedly increase bleeding.
73. Why Antihistamines may be used as pre-anaesthetic medication?
- Can reduce histamine-mediated symptoms.
 - Some cause sedation.
 - Use depends on clinical indication.
74. Why Ketamine is useful in asthma in selected situations?
- Usually preserves respiratory drive better than many sedatives.
 - Has bronchodilating properties.
 - May be useful in selected patients with bronchospasm.
75. Why Fluoxetine is an antidepressant?
- Selectively inhibits serotonin reuptake.
 - Increases serotonin availability.
 - Used for depressive and selected anxiety-related disorders.
76. Why Naloxone is used in opioid/morphine poisoning?
- Opioid receptor antagonist.
 - Rapidly reverses opioid respiratory/CNS depression.
 - Observation is needed because duration may be shorter than some opioids.
77. Why Chlorpromazine is used in psychosis?
- Blocks dopamine D2 receptors.
 - Reduces positive psychotic symptoms.
 - Can cause extrapyramidal and other adverse effects.
78. Why Carbidopa and levodopa are given together?
- Carbidopa inhibits peripheral dopa decarboxylase.
 - More levodopa reaches the brain.
 - Peripheral adverse effects are reduced.
79. Why Beta blockers may be used for performance anxiety?
- Reduce peripheral adrenergic symptoms such as tremor/palpitations.
 - Do not treat all psychological symptoms.
 - Use depends on the type of anxiety and patient factors.
80. Why Paracetamol is preferred to aspirin for fever in children?
- Aspirin is associated with Reye syndrome in certain viral illnesses.
 - Paracetamol provides antipyretic/analgesic effect without that association.
 - Use age-appropriate dosing.
81. Why Aspirin is avoided with oral anticoagulants?
- Aspirin inhibits platelets.
 - Anticoagulants reduce coagulation-factor activity.
 - Together they increase bleeding risk.
82. Why Clomiphene is used for infertility?

- Acts at hypothalamic oestrogen receptors.
- Increases gonadotropin release.
- Can stimulate ovulation in selected patients.

83. Why Minipill is less commonly used?

- Requires strict timing for optimal effectiveness.
- Irregular bleeding is common.
- Still useful when oestrogen-containing methods are unsuitable.

84. Why Misoprostol is used for medical termination of pregnancy?

- Prostaglandin E1 analogue.
- Softens cervix and stimulates uterine contractions.
- Use follows specific medical protocols.

85. Why Combined oral contraceptives prevent pregnancy?

- Suppress ovulation.
- Thicken cervical mucus.
- Alter endometrium and reduce fertilization/implantation probability.

86. Why Folic acid is recommended during pregnancy?

- Needed for DNA synthesis and cell division.
- Periconceptional use reduces neural tube defects.
- Supports maternal/fetal health.

87. Why Oxytocin is used to induce labour?

- Stimulates rhythmic uterine contractions.
- Can initiate or augment labour when indicated.
- Requires maternal/fetal monitoring.

88. Why Ergometrine is used in postpartum haemorrhage?

- Produces sustained uterine contraction.
- Helps compress uterine blood vessels.
- Used when clinically appropriate and contraindications are excluded.

89. Why Methotrexate is given with folinic acid?

- Methotrexate blocks folate-dependent processes.
- Folinic acid can rescue normal cells in selected regimens.
- Timing is protocol-dependent.

90. Why Mesna is important with cyclophosphamide/ifosfamide regimens?

- Binds urotoxic metabolites.
- Reduces bladder exposure.
- Helps prevent haemorrhagic cystitis when indicated.

91. Why Immunosuppressants increase risk of opportunistic infection?

- Suppress immune responses.
- Normally controlled organisms can cause disease.
- Infection surveillance is important.

92. Why Activated charcoal is used in selected acute poisonings?

- Adsorbs many substances in GI tract.
- Can reduce absorption when used for appropriate toxins and timing.
- Not effective for every poison.

93. Why Naloxone is an antidote for opioid overdose?

- Competitively antagonizes opioid receptors.
- Reverses respiratory depression.
- Requires continued observation for recurrent toxicity.

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2. PATHOLOGY I & II — DIFFERENCE BETWEEN

1. Reversible vs Irreversible cell injury

COLUMN A	COLUMN B
Potentially recoverable	Permanent damage
ATP depletion usually limited	Severe mitochondrial dysfunction
Membrane integrity preserved	Membrane integrity lost
Normal function may return	Cannot recover after cause removed
No definite cell death	Leads to cell death

2. Atrophy vs Hypertrophy

COLUMN A	COLUMN B
Decrease in cell size	Increase in cell size
Organ may shrink	Organ may enlarge
Often due to disuse/reduced workload	Often due to increased workload
May follow reduced trophic stimulation	Can be physiological/pathological
Cell number not primarily increased	Cell number not primarily increased

3. Hyperplasia vs Metaplasia

COLUMN A	COLUMN B
Increase in cell number	Reversible change of mature cell type
Occurs in proliferating tissues	Adaptive response to chronic irritation
May be physiological/pathological	Common in epithelium
Tissue may enlarge	Can alter normal function
May regress when stimulus removed	Persistent stimulus may lead to dysplasia

4. Dysplasia vs Apoptosis

COLUMN A	COLUMN B
Disordered growth/maturation	Programmed cell death
Cellular atypia	Cell shrinkage/apoptotic bodies
Abnormal tissue architecture	Usually little inflammation
May be premalignant	Removes unwanted cells
May regress early	Important in tissue homeostasis

5. Acute vs Chronic inflammation

COLUMN A	COLUMN B
Rapid onset	Long duration
Short duration	Mononuclear cells predominate
Neutrophils predominate	Macrophages/lymphocytes common
Vascular changes/exudation prominent	Tissue destruction + repair
Often follows acute injury/infection	Fibrosis may develop

6. Benign vs Malignant tumour

COLUMN A	COLUMN B
Usually slow growth	Often faster/uncontrolled growth
Often circumscribed	Invades surrounding tissue
No metastasis	May metastasize
Well differentiated	May be poorly differentiated
Recurrence less common after complete removal	Recurrence more likely

7. Thrombosis vs Embolism

COLUMN A	COLUMN B
Clot forms within vessel	Material travels in blood
Usually attached at site	Lodges away from origin
May propagate	May be thrombus/fat/air etc.

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Causes local obstruction	Causes distant obstruction
Can become source of embolus	May cause infarction

8. Transudate vs Exudate

COLUMN A	COLUMN B
Low protein	High protein
Low specific gravity	Higher specific gravity
Hydrostatic/oncotic imbalance	Inflammatory vascular permeability
Few cells	More cells
Usually non-inflammatory	Often cloudy

9. Chronic bronchitis vs Bronchiectasis

COLUMN A	COLUMN B
Chronic productive cough	Permanent bronchial dilation
Mucus hypersecretion	Recurrent infections
COPD spectrum	Large purulent sputum
Airway obstruction common	Airway wall destruction
Often smoking/irritants	May follow recurrent infection

10. Bronchopneumonia vs Lobar pneumonia

COLUMN A	COLUMN B
Patchy multifocal consolidation	Large continuous lobe involvement
Multiple lobules	More uniform consolidation
Often bilateral	Often one lobe
Peribronchiolar/lobular pattern	Classical stages may occur
May occur in vulnerable patients	Alveoli throughout lobe involved

11. Ischaemia vs Infarction

COLUMN A	COLUMN B
Reduced blood supply	Tissue necrosis due to prolonged ischaemia
May be reversible	Irreversible
Causes hypoxia	Causes cell death
Does not necessarily cause tissue death	Often vascular in origin
May be due to vascular obstruction	Inflammation surrounds dead tissue

12. Crohn disease vs Ulcerative colitis

COLUMN A	COLUMN B
Any GI segment	Colon/rectum
Skip lesions	Continuous lesions
Transmural	Mucosal/submucosal
Fistula/stricture possible	Toxic megacolon possible
Rectum may be spared	Rectum usually involved

13. Liver abscess vs Liver cirrhosis

COLUMN A	COLUMN B
Localized pus collection	Diffuse chronic fibrosis/nodules
Usually infectious	Chronic liver disease
Fever/RUQ pain	Portal hypertension possible
May be amoebic/bacterial	Architecture distorted
Drainage may be required	May cause liver failure/cancer

14. Osteoporosis vs Osteomyelitis

COLUMN A	COLUMN B
Low bone mass	Bone/marrow infection
Fragility fractures	Usually microbial
No primary infection	Pain/fever may occur

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Often age/hormonal/metabolic	Acute/chronic
Bone architecture weakened	Bone destruction possible

15. Rheumatoid vs Osteoarthritis

COLUMN A	COLUMN B
Autoimmune inflammatory	Degenerative
Often symmetrical small joints	Weight-bearing joints common
Morning stiffness	Pain worse with use
Synovitis	Cartilage loss/osteophytes
Extra-articular features possible	Systemic features uncommon

16. Esophageal vs Gastric cancer

COLUMN A	COLUMN B
Arises in oesophagus	Arises in stomach
Dysphagia common	Dyspepsia/early satiety
Tobacco/alcohol risk for some types	H. pylori and other risks
Weight loss	Bleeding/anemia possible
Lymphatic spread common	Regional/distant spread

17. Bleeding time vs PT

COLUMN A	COLUMN B
Historically assesses primary haemostasis	Extrinsic/common pathway
Platelet function	Warfarin monitoring
May prolong in platelet disorders	Factors I, II, V, VII, X
Not mainly coagulation factors	Reported as INR
Limited modern use	Affected by vitamin K deficiency/liver disease

18. PT vs APTT

COLUMN A	COLUMN B
Extrinsic/common pathway	Intrinsic/common pathway
Sensitive to factor VII	Factors XII, XI, IX, VIII
Warfarin monitoring	Unfractionated heparin monitoring
Reported as INR	Prolonged in haemophilia
Vitamin-K/liver effects	Affected by inhibitors/factor deficiencies

19. Blood grouping vs Cross matching

COLUMN A	COLUMN B
Determines ABO/Rh type	Tests donor-recipient compatibility
Identifies recipient/donor group	Detects clinically important incompatibility
Uses specific antisera	Uses donor cells + recipient plasma/serum
Part of transfusion preparation	Performed before transfusion
Does not itself test full compatibility	Reduces haemolytic reaction risk

PATHOLOGY I & II — LIST DOWN

1. Cellular adaptations

1. Hypertrophy
2. Hyperplasia
3. Atrophy
4. Metaplasia

2. Classification of neoplasia

1. Benign
2. Malignant

3. By tissue/cell of origin

3. Causes/risk factors of neoplasia

1. Chemical carcinogens
2. Radiation
3. Oncogenic infections
4. Inherited factors
5. Hormonal/environmental factors

4. Process of haemostasis

1. Vasoconstriction
2. Platelet plug
3. Coagulation/fibrin
4. Clot stabilization
5. Fibrinolysis

5. Types of shock

1. Hypovolaemic
2. Cardiogenic
3. Septic
4. Anaphylactic
5. Neurogenic

6. Classification of pneumonia

1. Lobar
2. Bronchopneumonia
3. Interstitial/atypical
4. Aspiration

7. Obstructive pulmonary disorders

1. Asthma
2. Chronic bronchitis
3. Emphysema
4. Bronchiectasis

8. Lung tumours

1. Small-cell carcinoma
2. Squamous carcinoma
3. Adenocarcinoma
4. Large-cell carcinoma
5. Other primary/metastatic tumours

9. Clinical features of rheumatic heart disease

1. Dyspnoea
2. Fatigue
3. Palpitations
4. Murmur/valvular disease

5. Heart failure in advanced disease

10. Modifiable risk factors of atherosclerosis

1. Smoking
2. Hypertension
3. Diabetes
4. Dyslipidaemia
5. Obesity/inactivity

11. Events of bone healing

1. Haematoma/inflammation
2. Soft callus
3. Hard callus
4. Remodelling

12. Bone tumours

1. Osteoma
2. Osteochondroma
3. Osteosarcoma
4. Chondrosarcoma
5. Ewing sarcoma

13. Blood groups

1. A
2. B
3. AB
4. O
5. Rh

14. Transfusion reactions

1. Acute haemolytic
2. Febrile non-haemolytic
3. Allergic
4. TRALI
5. TACO
6. Delayed haemolytic

15. Types of renal stones

1. Calcium
2. Struvite
3. Uric acid
4. Cystine

16. Histopathological RCC types

1. Clear cell
2. Papillary
3. Chromophobe

4. Other subtypes

17. Etiology of testicular atrophy

1. Cryptorchidism
2. Trauma
3. Infection
4. Endocrine disorders
5. Vascular/systemic causes

18. Risk factors of cervical carcinoma

1. Persistent high-risk HPV
2. Smoking
3. Early sexual activity/multiple partners
4. Immunosuppression
5. Lack of screening

19. Ovarian tumour classification

1. Surface epithelial
2. Germ cell
3. Sex-cord stromal
4. Metastatic

20. Types of breast cancer

1. Ductal
2. Lobular
3. Inflammatory
4. Paget disease
5. Other special types

21. Complications of haemorrhagic stroke

1. Raised ICP
2. Herniation
3. Seizures
4. Neurological deficits
5. Hydrocephalus

22. CNS tumour classification

1. Gliomas
2. Meningiomas
3. Schwannomas
4. Pituitary tumours
5. Embryonal/other tumours

23. Indications of sputum examination

1. Persistent cough
2. Suspected TB
3. Pneumonia/lower respiratory infection

4. Unexplained sputum

24. Indications of semen analysis

1. Infertility
2. Post-vasectomy assessment
3. Male reproductive disorder
4. Semen abnormality

25. Indications of gastric juice analysis

1. Acid disorders
2. Hyperchlorhydria/achlorhydria
3. Selected gastric disorders
4. Specialized diagnostic work-up

26. Indications of CSF analysis

1. Meningitis
2. Encephalitis
3. Subarachnoid haemorrhage
4. Other CNS infection/inflammation

GENETICS — DIFFERENCE BETWEEN

1. Mitosis vs Meiosis

COLUMN A	COLUMN B
One division	Two divisions after one replication
Two daughter cells	Four haploid cells
Chromosome number maintained	Chromosome number halved
Genetically similar cells	Crossing over/independent assortment
Growth/repair	Gamete formation

2. Autosomal dominant vs Autosomal recessive

COLUMN A	COLUMN B
Usually every generation	May skip generations
One affected heterozygous parent can transmit	Parents may be carriers
Both sexes equally	Both sexes equally
50% risk from heterozygous affected parent	25% affected risk from two carriers
Unaffected usually do not transmit	Consanguinity may increase risk

3. Somatic vs Germinal mutation

COLUMN A	COLUMN B
Body cells	Germ cells/precursors
Usually not inherited	Can be inherited
May cause mosaicism	May affect all cells of offspring
Can contribute to cancer	Inherited disorders
Affects descendants of cell	Affects future generations

4. Point vs Substitution mutation

COLUMN A	COLUMN B
Single nucleotide/base-pair change	Replacement of one base by another
May be silent/missense/nonsense	A type of point mutation
May alter codon	May be silent/missense/nonsense
Small sequence change	No chromosome-level rearrangement
Can alter protein	Effect depends on codon

5. Amniocentesis vs Cordocentesis

COLUMN A	COLUMN B
Amniotic fluid sampled	Fetal blood sampled
Usually earlier than cordocentesis	Usually later in pregnancy
Fetal cells/biochemical material	Direct fetal blood information
Selected genetic/fetal testing	Selected fetal haematologic/genetic tests
Small procedure-related risk	More invasive

6. Missed vs Threatened abortion

COLUMN A	COLUMN B
Fetal death with products retained	Bleeding with potentially viable pregnancy
Cervix usually closed	Cervix closed
Bleeding may be absent/mild	No expulsion
Pregnancy symptoms may disappear	Fetal heart activity may be present
Ultrasound confirms nonviability	Pregnancy may continue

7. Spina bifida occulta vs cystica

COLUMN A	COLUMN B
Skin-covered vertebral defect	Cystic/open defect
Milder	More severe
Often no major neurological deficit	Meninges/neural tissue may protrude

May have skin marker	Neurological deficits common
No external sac of neural tissue	Includes meningocele/myelomeningocele

8. Genetic testing vs screening

COLUMN A	COLUMN B
Diagnostic/confirmatory	Risk estimation
For suspected condition	Often population/risk group
Can identify specific variant	Does not confirm disease
May be definitive	Positive may need diagnostic test
Often follows clinical/family indication	Used for early risk identification

9. Genetic testing vs genetic therapy

COLUMN A	COLUMN B
Diagnoses/identifies variants	Treats genetic mechanism
Diagnostic purpose	Therapeutic purpose
Does not correct gene	Aims to modify gene function
Molecular/cytogenetic/biochemical	May add/edit/silence genes
Guides counselling/management	Changes disease biology

10. Preconception vs Periconception screening

COLUMN A	COLUMN B
Before pregnancy	Around conception/early pregnancy
Carrier/reproductive risk	Early maternal-fetal risk
Allows planning time	Early screening/testing
Carrier testing may be done	Allows early planning
Risk identified before conception	Timing close to conception

11. Lynch vs Li-Fraumeni syndrome

COLUMN A	COLUMN B
Mismatch-repair pathway	TP53-associated
Colorectal/endometrial risk	Broad early-onset cancers
Other GI/GU cancers	Sarcoma/breast/brain/adrenal etc.
MMR gene variants	High lifetime cancer risk
Microsatellite instability may occur	Early surveillance

12. Juvenile vs Infantile Huntington disease

COLUMN A	COLUMN B
Child/adolescent onset	Infancy onset
Rigidity/bradykinesia/seizures	Very rare
Cognitive/behavioural changes	Severe developmental/motor impairment
Usually inherited	Often very large CAG expansion
Rapid progression	Severe early course

13. Gene augmentation vs Gene inhibition therapy

COLUMN A	COLUMN B
Adds functional gene material	Silences harmful gene expression
Restores deficient function	Reduces toxic protein
For loss-of-function	For selected gain-of-function
Increases functional protein	RNA/antisense/editing approaches
Delivery via vector/non-vector	Decreases pathogenic expression

14. Retrospective vs Prospective genetic counselling

COLUMN A	COLUMN B
After affected child/event	Before pregnancy/reproductive decision
Uses known outcome	Uses risk information
Estimates recurrence risk	Supports preventive planning

Reviews family history/results	May include carrier testing
Plans future pregnancy	Aims to reduce future uncertainty

GENETICS — LIST DOWN

1. Ethical/legal/social implications

1. Confidentiality
2. Informed consent
3. Non-discrimination
4. Reproductive autonomy
5. Accurate counselling

2. Impact of genetics on families

1. Emotional stress
2. Financial burden
3. Family-role changes
4. Long-term support
5. Risk to relatives

3. Stages of mitosis

1. Prophase
2. Metaphase
3. Anaphase
4. Telophase
5. Cytokinesis

4. Five sub-stages of Prophase I

1. Leptotene
2. Zygotene
3. Pachytene
4. Diplotene
5. Diakinesis

5. Stages of Meiosis II

1. Prophase II
2. Metaphase II
3. Anaphase II
4. Telophase II
5. Cytokinesis

6. Events in Meiosis II

1. Chromosomes condense
2. Align at equator
3. Sister chromatids separate
4. Nuclei reform
5. Haploid cells result

7. Steps of transcription

1. Initiation
 2. Promoter recognition/opening
 3. Elongation
 4. Termination
8. Structural chromosomal abnormalities
1. Deletion
 2. Duplication
 3. Inversion
 4. Translocation
9. Blood group systems
1. ABO
 2. Rh
 3. Kell
 4. Duffy
10. Methods for prenatal diagnosis
1. Ultrasonography
 2. Amniocentesis
 3. Chorionic villus sampling
 4. Cordocentesis
11. Non-invasive prenatal diagnosis/screening
1. Ultrasound
 2. Maternal serum screening
 3. Cell-free fetal DNA
 4. Fetal assessment/monitoring
12. Invasive prenatal diagnosis
1. CVS
 2. Amniocentesis
 3. Cordocentesis
 4. Selected fetal tissue sampling
13. Potential effects of fetal radiation exposure
1. Growth restriction
 2. Congenital abnormalities at high exposure
 3. Neurodevelopmental effects
 4. Increased lifetime cancer risk
14. Diagnostic evaluation of infertility
1. History/examination
 2. Semen analysis
 3. Ovulation assessment
 4. Tubal/uterine assessment
15. Classification of spontaneous abortion

1. Threatened
2. Inevitable
3. Incomplete
4. Complete
5. Missed

16. Diagnostic evaluation of neural tube defects

1. Maternal serum AFP
2. Ultrasound
3. Amniotic fluid AFP/acetylcholinesterase when indicated
4. Detailed fetal imaging

17. Benefits of genetic testing

1. Confirms diagnosis
2. Carrier status
3. Recurrence risk
4. Guides counselling/management

18. Screening tests for congenital abnormalities

1. Ultrasound
2. Maternal serum screening
3. NIPT
4. Newborn screening

19. Common newborn screening disorders

1. Phenylketonuria
2. Congenital hypothyroidism
3. Congenital adrenal hyperplasia
4. Haemoglobin disorders

20. Inborn errors of metabolism

1. Phenylketonuria
2. Maple syrup urine disease
3. Galactosaemia
4. Homocystinuria

21. Haemolytic disease of newborn

1. Rh disease
2. ABO disease
3. Other maternal antibody disease
4. Minor blood-group incompatibility

22. Diagnostic genetic testing types

1. Molecular
2. Cytogenetic
3. Biochemical
4. Chromosomal microarray/genomic

23. Non-diagnostic genetic testing types

1. Carrier
2. Predictive/presymptomatic
3. Prenatal risk testing
4. Newborn screening

24. Sampling techniques

1. Blood
2. Buccal swab
3. Amniotic fluid
4. Chorionic villus sample

25. Gene therapy types

1. Gene augmentation
2. Gene inhibition/silencing
3. Gene editing
4. Cell-based approaches

26. Genetic counselling steps

1. History/risk assessment
2. Explain diagnosis/risk
3. Discuss options
4. Support informed choice
5. Follow-up

27. Applications of genetic counselling

1. Inherited disease risk
2. Carrier counselling
3. Prenatal/reproductive counselling
4. Cancer risk counselling

3. ADULT HEALTH NURSING II — DIFFERENCE BETWEEN

1. Otorrhea vs Rhinorrhea

COLUMN A	COLUMN B
Ear discharge	Nasal discharge
May follow ear infection/injury	Rhinitis/sinusitis or CSF leak
Origin ear canal/middle ear	Origin nasal cavity
May be purulent/watery	Watery/mucopurulent
Ear examination identifies cause	Nasal examination identifies cause

2. Tonsillitis vs Laryngitis

COLUMN A	COLUMN B
Tonsil inflammation	Larynx inflammation
Sore throat	Hoarseness
Enlarged/red tonsils	Often viral/voice overuse
Fever may occur	Cough may occur
Voice change not primary	Laryngeal examination may be needed

3. Nasal vs Laryngeal obstruction

COLUMN A	COLUMN B
Nasal passage blockage	Laryngeal airway blockage
Nasal breathing difficult	Severe airway compromise possible
Polyps/rhinitis/foreign body	Stridor warning sign
Mouth breathing	Voice change
Usually less immediately life-threatening	May become emergency

4. Rhinitis vs Sinusitis

COLUMN A	COLUMN B
Nasal mucosa inflammation	Paranasal sinus inflammation
Sneezing/rhinorrhoea	Facial pressure/pain
Often allergic/viral	Congestion/discharge
Nasal obstruction	Often follows URI
Sinus pain not essential	Sinus tenderness may occur

5. Otalgia vs Ototoxicity

COLUMN A	COLUMN B
Ear pain symptom	Toxic injury to ear
Local/referred causes	Hearing loss/tinnitus
May occur with infection	Vertigo possible
Pain is main complaint	May follow toxic drugs/chemicals
Not specifically drug injury	May be irreversible

6. Laryngectomy vs Tonsillectomy

COLUMN A	COLUMN B
Removes part/all of larynx	Removes tonsils
Often for laryngeal cancer	For selected tonsillar disease
May alter voice/airway	Normal laryngeal voice retained
Total laryngectomy creates stoma	No permanent airway diversion
Needs rehabilitation	Post-op throat pain common

7. Mastectomy vs Mastoidectomy

COLUMN A	COLUMN B
Breast removal	Mastoid bone/air-cell removal
Cancer/selected breast disease	Selected chronic ear disease
Partial or total	Eradicates mastoid disease

Body-image impact	Temporal-bone surgery
May include node surgery	Facial/hearing status monitored

8. Pharyngitis vs Tonsillitis

COLUMN A	COLUMN B
Pharynx inflammation	Tonsil inflammation
Sore throat	Tonsillar enlargement/exudate
Pharyngeal redness	Painful swallowing
Often viral/bacterial	Viral/bacterial
Tonsils may be normal	Cervical nodes may enlarge

9. Styte vs Chalazion

COLUMN A	COLUMN B
Acute gland infection/inflammation	Chronic meibomian inflammation
Painful red swelling	Usually painless firm nodule
Often eyelid margin	Less redness
May contain pus	Persists longer
Usually resolves	May need ophthalmic treatment

10. Intracranial pressure vs Intraocular pressure

COLUMN A	COLUMN B
Pressure within skull	Pressure within eye
Affected by brain/blood/CSF	Affected by aqueous humour
Raised ICP causes headache/vomiting	Raised IOP risks glaucoma
Severe rise can herniate	Can damage optic nerve
Neurological assessment	Measured by tonometry

11. Myopia vs Hypermetropia

COLUMN A	COLUMN B
Image focuses in front of retina	Image focuses behind retina
Distance vision blurred	Near vision difficult
Concave lens correction	Convex lens correction
Eye relatively long	Eye relatively short
Near vision better	Accommodation more for near vision

12. Keratoplasty vs Myringoplasty

COLUMN A	COLUMN B
Corneal transplant/repair	Tympanic membrane repair
For corneal disease	For selected perforation
Restores clarity/function	Closes perforation/improves hearing
Eye surgery	Ear surgery
Post-op eye care	Ear precautions

13. Keratitis vs Uveitis

COLUMN A	COLUMN B
Corneal inflammation	Uveal inflammation
Pain/photophobia	Pain/photophobia/blurred vision
Ulcer/opacity possible	Anterior chamber cells/flare
Infectious/non-infectious	Autoimmune/infectious/traumatic
Prompt eye assessment	Visual complications possible

14. Conjunctivitis vs Dacryocystitis

COLUMN A	COLUMN B
Conjunctival inflammation	Lacrimal sac infection
Red eye/discharge	Medial canthus swelling
Infectious/allergic	Tearing

Vision usually preserved	Pus may reflux from punctum
Not primarily lacrimal sac	Often nasolacrimal obstruction

15. External AV shunt vs Internal AV shunt

COLUMN A	COLUMN B
External tubing connection	Internal artery-vein connection
More infection/dislodgement risk	AV fistula/graft
Used historically/selected cases	More durable
Needs protection	Thrill/bruit assessed
Less common now	Lower infection risk than external

16. Epispadias vs Hypospadias

COLUMN A	COLUMN B
Meatus dorsal	Meatus ventral
Less common	More common
May occur with bladder exstrophy	Chordee may occur
Chordee may occur	Abnormal urinary stream
Surgical repair	Surgical repair often

17. Nephrectomy vs Nephrostomy

COLUMN A	COLUMN B
Kidney removed	Drainage from kidney to skin
Partial/total	Usually tube
Cancer/severe disease/donation	Obstruction/drainage
Reduced renal mass if total	Kidney remains
Major surgery	Tube-site care

18. Hydrocele vs Phimosis

COLUMN A	COLUMN B
Fluid around testis	Tight foreskin
Scrotal swelling	Penile condition
Usually painless	Urinary/hygiene problems
May transilluminate	Congenital/acquired
Congenital/acquired	Treatment depends on severity

19. Haemodialysis vs Peritoneal dialysis

COLUMN A	COLUMN B
Blood filtered by dialyzer	Peritoneum is membrane
Vascular access	Peritoneal catheter
Often dialysis unit/home machine	Home treatment possible
Rapid solute/fluid removal	Dialysate in abdomen
Access/hypotension complications	Peritonitis important risk

20. Lithotripsy vs Lithotomy

COLUMN A	COLUMN B
Stone fragmented	Incision to remove stone
Shockwave/endoscopic energy	More invasive
Facilitates passage/removal	Direct extraction
Less invasive	Selected situations
Selected stones	Recovery depends on approach

21. AV graft vs AV fistula

COLUMN A	COLUMN B
Synthetic/biologic graft	Native artery-vein connection
Can be used sooner	Preferred durable access
More infection/thrombosis	Lower infection/thrombosis

Needs protection	Needs maturation
Used if native vessels unsuitable	Thrill/bruit assessed

22. Diffusion vs Ultrafiltration

COLUMN A	COLUMN B
Solute moves down concentration gradient	Fluid moves by pressure gradient
No pressure gradient required	Removes water
Removes small solutes	Solutes may accompany water
Concentration difference	Transmembrane pressure
Dialysis clearance	Fluid removal

23. Haematuria vs Oliguria

COLUMN A	COLUMN B
Blood in urine	Low urine output
Red/brown or microscopic	Reduced volume
Urinary tract disease	Renal failure/dehydration/obstruction
Urine volume may be normal	May occur without blood
Urine test detects	Fluid/renal assessment

24. AKI/ARF vs CKD/CRF

COLUMN A	COLUMN B
Rapid decline	Persistent damage months+
Potentially reversible	Usually progressive
Hours-days	Gradual
Acute fluid/electrolyte changes	Anaemia/mineral-bone/uraemia
Shock/sepsis/toxin/obstruction causes	May require renal replacement

25. Allograft vs Xenograft

COLUMN A	COLUMN B
Same species, different individuals	Different species
Human-to-human	Animal-to-human example
Clinical transplantation	Strong immune barrier
Immunosuppression needed	High rejection
Rejection possible	Specialized/experimental uses

26. Phimosis vs Paraphimosis

COLUMN A	COLUMN B
Foreskin cannot retract	Retracted foreskin trapped
Usually chronic	Swelling/venous obstruction
Hygiene/urinary issues	Can compromise glans
Congenital/acquired	Urgent condition
Treatment varies	Prompt reduction needed

27. Primary vs Secondary infertility

COLUMN A	COLUMN B
No previous pregnancy	Pregnancy occurred before
First pregnancy not achieved	Difficulty conceiving again
Male/female/combined factors	New/persistent causes
Both partners evaluated	Both partners evaluated
Reproductive history important	May follow changes in health

28. Gonococcal vs Non-gonococcal urethritis

COLUMN A	COLUMN B
N. gonorrhoeae	Other organisms, commonly Chlamydia
Often purulent discharge	Scant/mucoid discharge
Short incubation	Often milder

Specific treatment	Testing-guided treatment
Partner management	Partner management

29. Hydrocele vs Varicocele

COLUMN A	COLUMN B
Fluid around testis	Dilated pampiniform veins
Painless swelling	Bag-of-worms feel
May transilluminate	Often left-sided
Smooth/fluctuant	Infertility association
No bag-of-worms feel	Dragging discomfort

30. Retropubic vs Perineal prostatectomy

COLUMN A	COLUMN B
Lower abdominal/retropubic approach	Perineal approach
Wider pelvic access	No abdominal incision
Selected prostate surgery	Selected prostate surgery
Possible node access	Different continence/wound considerations
Abdominal wound care	Perineal wound care

31. Allograft vs Xenograft in burns

COLUMN A	COLUMN B
Human donor tissue	Different-species tissue
Temporary cover	Temporary cover
Reduces fluid/heat loss	May help biological coverage
Eventually rejected	Usually rejected
Used in extensive burns	Selected applications

32. Graft vs Flap

COLUMN A	COLUMN B
No own blood supply initially	Has own blood supply
Needs recipient-bed revascularization	Local/free flap
Split/full thickness	Complex defect coverage
Requires vascular bed	Useful with poor recipient bed
Wound coverage	Perfusion monitored

33. Autograft vs Allograft

COLUMN A	COLUMN B
Same person	Different human
No immune rejection	Rejection possible
Permanent coverage when successful	Often temporary
Definitive burn cover	Donor tissue needed
Donor site created	May be rejected

34. Homograft vs Xenograft

COLUMN A	COLUMN B
Same species	Different species
Also called allograft	Strong antigenic difference
Temporary cover possible	Usually temporary
Rejection possible	Rejection expected
Human tissue	Animal tissue

35. Split-thickness vs Full-thickness graft

COLUMN A	COLUMN B
Epidermis + part dermis	Epidermis + whole dermis
Larger areas	Smaller areas
Donor site heals naturally	Donor site primary closure

More contraction	Less contraction
Extensive burns	Better cosmetic/function match

36. Reconstructive vs Cosmetic surgery

COLUMN A	COLUMN B
Restores function/form	Primarily appearance
After disease/trauma/congenital defect	Usually elective
Functional goal	Aesthetic goal
Often medically indicated	Patient expectation focused
May follow burns/cancer	May overlap with reconstruction

37. Reduction vs Augmentation mammoplasty

COLUMN A	COLUMN B
Reduces breast volume	Increases volume
Macromastia symptoms	Implant/fat transfer
Removes/reshapes tissue	Cosmetic/reconstructive
May reduce pain	Risk/expectations assessed
Scarring/sensation changes	Follow-up needed

38. Acceleration vs Deceleration injury

COLUMN A	COLUMN B
Sudden gain in speed	Sudden stop/slowness
Brain movement within skull	Brain continues moving
Coup-type mechanisms possible	Contrecoup/shearing possible
Rapid propulsion	Falls/collisions
Acceleration force	Deceleration force

39. Hypovolaemic vs Neurogenic shock

COLUMN A	COLUMN B
Loss of circulating volume	Loss sympathetic tone
Bleeding/fluid loss	Spinal cord injury
Tachycardia common	Bradycardia may occur
Cool/clammy skin	Warm/dry skin early
Low preload	Peripheral vasodilation

40. Decerebrate vs Decorticate posture

COLUMN A	COLUMN B
Extension of arms	Flexion of arms
Severe brainstem dysfunction	Damage above brainstem motor centres
More caudal damage	Less caudal than decerebrate
Abnormal response	Abnormal response
Leg extension	Legs extended

41. Paralysis vs Paresis

COLUMN A	COLUMN B
Complete motor loss	Partial weakness
No voluntary movement	Some movement remains
May involve limbs	Selected muscles possible
CNS/PNS causes	CNS/PNS causes
More severe	Variable severity

42. Grand mal vs Petit mal epilepsy

COLUMN A	COLUMN B
Tonic-clonic seizure	Absence seizure
Loss of consciousness	Brief awareness loss
Postictal confusion	Minimal motor activity

Tongue bite/incontinence possible	No postictal confusion usually
Longer episode	Common in children

43. Concussion vs Contusion

COLUMN A	COLUMN B
Functional disturbance	Structural brain bruise
No gross structural lesion usually	Focal haemorrhage/tissue injury
Brief confusion/amnesia	More deficits
Headache common	Can raise ICP
Often supportive management	More significant injury

44. Delusion vs Illusion

COLUMN A	COLUMN B
False fixed belief	Misinterpretation of real stimulus
Not based on external stimulus	External stimulus exists
Persists despite evidence	Perception distorted
Psychosis common	Can occur with fatigue/illness
Belief disorder	Perceptual disorder

45. Psychosis vs Neurosis

COLUMN A	COLUMN B
Reality testing impaired	Reality testing generally intact
Delusions/hallucinations may occur	Anxiety/distress common
Insight may be poor	Insight usually preserved
Functioning markedly affected	Term historically used
Schizophrenia is example	Less severe loss of reality testing

46. Motor vs Sensory aphasia

COLUMN A	COLUMN B
Speech production impaired	Comprehension impaired
Comprehension relatively better	Fluent but meaningless speech
Effortful speech	Poor understanding
Writing may be impaired	Naming/repetition impaired
Dominant frontal area	Dominant temporal area

47. Epidural vs Subdural haematoma

COLUMN A	COLUMN B
Between skull and dura	Between dura and arachnoid
Middle meningeal artery common	Bridging veins common
Lucid interval possible	Acute/subacute/chronic
Lens-shaped CT	Crescent CT
Rapid deterioration	Older/anticoagulated risk

48. Adrenaline vs Noradrenaline

COLUMN A	COLUMN B
$\alpha + \beta$ effects	Predominantly α_1/β_1
Strong β_2 bronchodilation	Strong vasoconstrictor
Anaphylaxis	Raises BP
Increases HR/contractility	Less β_2
Vasoconstriction too	Vasopressor in shock

49. Craniotomy vs Craniectomy

COLUMN A	COLUMN B
Bone flap replaced	Bone removed and not immediately replaced
Access to brain	Decompression
Tumour/bleeding etc.	Severe swelling

Temporary opening	Later reconstruction
Bone replaced at end	Permanent defect until repair

50. Quadriplegia vs Paraplegia

COLUMN A	COLUMN B
All four limbs affected	Both lower limbs
Cervical cord	Thoracic/lumbar cord
Respiratory muscles may be affected	Upper limbs spared
Upper limbs impaired	Bowel/bladder may be affected
Extensive rehab	Mobility rehab

51. Hemiplegia vs Paraplegia

COLUMN A	COLUMN B
One side paralysed	Both lower limbs paralysed
Arm + leg same side	Upper limbs spared
Stroke/brain lesion	Spinal cord lesion
Face may be involved	Bowel/bladder possible
Unilateral	Bilateral lower body

52. Anterior cord vs Brown-Sequard syndrome

COLUMN A	COLUMN B
Anterior two-thirds	Hemisection
Motor loss	Ipsilateral motor/vibration loss
Pain/temp loss	Contralateral pain/temp loss
Posterior column relatively spared	Tract-specific pattern
Severe cord injury	Incomplete injury

53. Anterior cord vs Central cord syndrome

COLUMN A	COLUMN B
Anterior cord structures	Central cervical cord
Motor + pain/temp loss	Upper limbs weaker than lower
Posterior columns relatively spared	Variable sensory loss
Severe weakness	Bladder dysfunction possible
Major flexion/compression	Hyperextension injury

54. Active vs Passive immunity

COLUMN A	COLUMN B
Own immune response	Antibodies received
Infection/vaccine	Maternal antibody/immunoglobulin
Memory develops	Immediate
Longer-lasting	Temporary
Slower onset	No recipient memory

55. HIV vs AIDS

COLUMN A	COLUMN B
Virus/infection	Advanced clinical syndrome
Targets CD4 cells	Severe immune suppression
May be asymptomatic	Opportunistic disease/cancers
Controlled with ART	Stage of HIV infection
Can progress to AIDS	Preventable with effective treatment

56. Chondroma vs Sarcoma

COLUMN A	COLUMN B
Benign cartilage tumour	Malignant connective tissue tumour
Slow growth	May invade
No metastasis	May metastasize

VIRUS

WILEY
BLACKWELL

Well circumscribed	Variable growth
Malignant change uncommon	Requires oncology management

57. Hodgkin vs Non-Hodgkin lymphoma

COLUMN A	COLUMN B
Reed-Sternberg cells	No defining Reed-Sternberg cells
Contiguous nodal spread	Non-contiguous spread
B symptoms	Many B/T subtypes
Predictable nodal pattern	Extranodal disease common
Often highly treatable	Behaviour varies by subtype

58. Hyperplasia vs Metaplasia

COLUMN A	COLUMN B
More cells	Different mature cell type
Proliferation	Adaptive
Physiological/pathological	Chronic stress
Tissue enlarges	Function may change
Can regress	Persistent stimulus may predispose dysplasia

59. Teletherapy vs Brachytherapy

COLUMN A	COLUMN B
Source outside body	Source in/near tumour
External beam	Internal radiation
Deep/accessible tumours	High local dose
Planned field	Rapid dose fall-off
Patient not radioactive after routine session	Radiation-safety precautions

60. Normal vs Malignant cell

COLUMN A	COLUMN B
Controlled growth	Uncontrolled proliferation
Normal differentiation	Variable differentiation
Contact inhibition	Loss of growth control
Normal nucleus/cytoplasm	Nuclear atypia
Regulated apoptosis	Invasion/metastasis possible

61. Carcinoma vs Sarcoma

COLUMN A	COLUMN B
Epithelial origin	Mesenchymal origin
Skin/organ epithelium	Bone/muscle/fat etc.
Common adult cancer	Less common
Lymphatic spread common	Hematogenous spread common
Adenocarcinoma/squamous examples	Osteosarcoma/liposarcoma examples

62. External vs Internal radiation

COLUMN A	COLUMN B
Source outside	Source within/near target
Beam to target	Internal/brachytherapy
External-beam therapy	High local dose
Planned field	Selected cancers
Usually no residual radioactivity	Safety precautions may be needed

63. Modified radical vs Radical mastectomy

COLUMN A	COLUMN B
Breast + axillary nodes	Breast + nodes + chest muscles
Chest muscles preserved	More extensive
Less extensive	Greater morbidity

Better shoulder function	Historically advanced disease
Commoner modern approach	Rare now

64. Cyst vs Tumour

COLUMN A	COLUMN B
Sac/cavity	Cellular mass
Often fluid/semi-solid	Benign/malignant
May be benign	Usually solid
Wall usually present	May be cystic
May be developmental/obstructive	Can invade/metastasize if malignant

65. Natural vs Man-made disaster

COLUMN A	COLUMN B
Natural environmental event	Human activity/technology
Earthquake/flood/cyclone	Industrial accident/chemical spill/war
Limited human control	Prevention can reduce risk
Preparedness reduces impact	Hazard-specific response
Mass casualties possible	May be intentional or accidental

AHN II — GIVE REASON

1. Artificial tears/moisturizers are advised when eyelid closure is difficult

- Incomplete closure exposes cornea and increases evaporation.
- Lubrication protects ocular surface.
- Moisture retention reduces dryness/corneal injury.

2. High-protein diet may be encouraged in nephrotic syndrome

- Urinary protein loss is significant.
- Adequate protein supports growth and replacement.
- Intake is individualized to renal function.

3. Full bladder is requested for ultrasound abdomen/pelvis

- Provides acoustic window.
- Displaces bowel gas and improves pelvic visualization.
- Helps assess bladder and nearby structures.

4. Erythropoietin is given in chronic renal failure

- Diseased kidneys produce less erythropoietin.
- Reduced erythropoiesis causes renal anaemia.
- Erythropoiesis-stimulating therapy can correct selected anaemia.

5. Renal function test is needed before lithium

- Lithium is mainly renally cleared.
- Renal impairment increases accumulation/toxicity.
- Baseline and follow-up renal assessment are important.

6. Intake/output monitoring is important in nephrotic syndrome

- Fluid shifts/oedema occur.
- Protein loss and renal function affect balance.
- Helps detect overload or depletion.

7. Hypokalaemia can occur in chronic renal failure

- Severe CKD more commonly causes hyperkalaemia.
- Hypokalaemia may occur with diuretics, GI loss, poor intake or tubular disorders.
- Serum potassium and cause must be assessed.

8. Anaemia occurs in renal failure

- Reduced erythropoietin lowers RBC production.
- Uraemia shortens RBC survival.
- Iron deficiency/inflammation may contribute.

9. Immunosuppressants are given after renal transplantation

- Graft is immunologically different.
- Recipient immunity can reject graft.
- Immunosuppression reduces rejection.

10. Urine output is monitored during dopamine infusion

- Reflects renal perfusion/function.
- Changes can indicate circulatory deterioration/improvement.
- Important bedside indicator in critical illness.

11. Fruit/fruit juice may be restricted after renal surgery

- Some are potassium-rich.
- Reduced renal function may impair potassium excretion.
- Restriction depends on serum potassium/renal status.

12. Urine output is strictly monitored after renal transplantation

- Early output reflects graft function.
- Low output may indicate obstruction, vascular problems or delayed function.
- Allows prompt recognition of complications.

13. Contrast dye may be avoided in AKI

- Some iodinated contrast can worsen kidney injury.
- AKI reduces renal reserve.
- Alternative imaging/risk-benefit assessment may be chosen.

14. Protein restriction may be advised in renal failure

- Protein metabolism produces nitrogenous waste.
- Kidneys may not excrete waste effectively.
- Controlled intake can reduce uraemic burden while maintaining nutrition.

15. Contraception is continued after vasectomy until clearance is confirmed

- Sperm can remain in reproductive tract after procedure.
- Pregnancy can occur until semen analysis confirms clearance.
- Alternative contraception is required until medical confirmation.

16. Continuous controlled hyperventilation is not routinely maintained for raised ICP

- Excessive CO₂ reduction lowers cerebral blood flow.
- Can cause cerebral ischaemia.
- Reserved for selected emergencies while definitive treatment is arranged.

17. Supine/no pillow after lumbar puncture is a traditional practice

- Historically intended to reduce post-LP headache.
- Evidence does not support prolonged flat bed rest as routine prevention.
- Current care follows clinical protocol and symptoms.

18. Head end is elevated in raised ICP

- Improves cerebral venous drainage.
- Can lower ICP.
- Neutral neck alignment maintains venous outflow.

19. Hair wash before EEG

- Clean scalp improves electrode contact.
- Reduces electrical impedance.
- Hair products can interfere with adhesion.

20. Fluid balance is important after cerebral aneurysm repair

- Both overload and dehydration affect cerebral perfusion.
- Electrolyte changes affect neurological status.
- Stable fluid balance supports cerebral circulation.

21. Logrolling is used after spinal cord injury

- Maintains spinal alignment.
- Prevents twisting.
- Reduces secondary cord injury.

22. Straining is avoided during seizure

- Raises intrathoracic/venous pressure.
- May increase ICP.
- Seizure care emphasizes airway/injury prevention.

23. Dental hygiene is essential with phenytoin

- Phenytoin can cause gingival overgrowth.
- Plaque/inflammation worsen it.
- Oral care reduces complications.

24. Mannitol may be used after intracranial surgery

- Osmotic action draws water from brain tissue.
- Can reduce cerebral oedema/ICP.
- Renal/cardiovascular status must be assessed.

25. Thrombolytic therapy is contraindicated after recent major surgery or stroke

- Impairs clot formation.
- Recent surgery/brain injury increases bleeding risk.
- Risk may outweigh benefit.

26. BP is monitored after cerebral aneurysm repair

- Hypertension can stress repaired vessel.
- Hypotension can reduce cerebral perfusion.
- Controlled BP supports safe cerebral circulation.

27. Flexed lateral position is used for lumbar puncture

- Flexion widens intervertebral spaces.
- Facilitates needle entry.
- Avoid excessive neck flexion.

28. Head of bed about 30° in head injury

- Promotes venous drainage.
- May reduce ICP.
- Neutral alignment should be maintained.

29. Prolonged suctioning is avoided in head injury

- Can provoke coughing and raise ICP.
- Can cause hypoxia.
- Use short controlled suction when necessary.

30. Mannitol may be used in selected head injury

- Osmotic effect reduces brain water.
- Can lower ICP.
- Requires renal/hemodynamic assessment.

31. ART should not be stopped without medical advice

- Interruptions allow viral rebound.
- May promote resistance.

- Changes should be supervised.

32. CD4 count is monitored in HIV infection

- Reflects immune status.
- Low counts indicate greater immunosuppression.
- Helps assess risk and response alongside viral load/clinical status.

33. WBC count is checked before chemotherapy

- Chemotherapy suppresses marrow.
- Low WBC increases infection risk.
- Baseline count guides safe treatment decisions.

34. WBC count is monitored during chemotherapy

- Detects leukopenia/neutropenia.
- Identifies infection risk and marrow suppression.
- May require treatment adjustment.

35. Anaemia occurs during chemotherapy

- Marrow suppression reduces RBC production.
- Cancer/inflammation/bleeding/nutrition can contribute.
- Lower haemoglobin reduces oxygen-carrying capacity.

36. Oral hygiene is important during head/neck radiotherapy

- Radiation damages mucosa and salivary glands.
- Dryness and mucosal injury increase infection/dental problems.
- Oral care reduces discomfort and complications.

37. Anaemia is common during chemotherapy

- Bone marrow suppression.
- Chronic disease/nutritional factors.
- Reduced Hb causes fatigue and low oxygen delivery.

38. Soft-bristle toothbrush is advised during chemotherapy

- Mucosa may be fragile and platelets may be low.
- Soft bristles reduce gum trauma/bleeding.
- Maintains oral hygiene with less injury.



39. THANK YOU

40. “Success is the sum of small efforts, repeated day in and day out.”

41. — Robert Collier

42. ALL THE VERY BEST FOR YOUR EXAM!