

FINAL YEAR B. PHARMACY SEM VIII

BPH_E_807_T – Clinical Pharmacy

Questions SET 1

- Type I ADR reactions is _____
 - Caused when T-cells bind to a specific antigen
 - Caused by tissue injury
 - IgE mediated
 - Caused by cytotoxic antibodies
- Average time period for phase II clinical trials study is _____
 - Upto 4 year
 - Upto few month
 - Upto Two year
 - Upto several year
- Bioavailability seen after drug administered by direct intravenous route is _____
 - 0%
 - Depends on half life of drug
 - 100%
 - Is unpredictable
- _____ drug can cause lactic acidosis.
 - Metformin
 - Pioglitazone
 - Repaglinide
 - Glibenclamide
- The incidence ADR is highest in _____.
 - Children
 - Elderly
 - Women
 - Men
- _____ preparations are avoided during pregnancy.
 - Vitamin E
 - Vitamin A
 - Folic acid
 - Zinc
- Ototoxicity is a unique side effect of _____ group of diuretics.
 - Loop
 - Thiazide
 - Potassium sparing
 - Osmotic
- _____ antihypertensivetherapy should be avoided in type-1 diabetes mellitus
 - ACE inhibitors
 - High dose diuretics

- c) Centrally acting
 - d) calcium channel blockers
9. _____ is an example of Category X drugs
- a) Diclofenac
 - b) Ranitidine
 - c) Lorazepam
 - d) Paracetamol
10. _____ has positive evidence of human fetal risk, but the benefits from use in pregnant women may be acceptable despite of risk.
- a) Category A
 - b) Category B
 - c) Category C
 - d) Category D
11. _____ is indicated in agitation and restlessness in the elderly, despite the high incidence of extrapyramidal side-effects.
- a) Prochlorperazine
 - b) Clozapine
 - c) Haloperidol
 - d) Flupentixol
12. _____ is contraindicated during pregnancy due to its Teratogenicity.
- a) Folic acid
 - b) Calcium
 - c) Retinol
 - d) Iron
13. _____ commonly reported ADR of diuretic class of drugs.
- a) Hypokalemia
 - b) Alopecia
 - c) Skin disorder
 - d) Rhinitis
14. Young's Rule is applicable for calculating dose of children's _____
- a) Upto 1 year
 - b) Upto 1 to 2 year
 - c) Upto 1 to 5 year
 - d) Upto 1 to 12 years
15. Pharmacodynamic drug interactions includes _____
- a) Changes in gastro-intestinal Ph
 - b) Induction or inhibition of drug transport proteins
 - c) Additive or synergistic interactions
 - d) Adsorption, chelation and other complexing mechanisms
16. Which of the following responsibility of the clinical pharmacist is in direct patient care area?
- a) Supervision of drug administration techniques.
 - b) Providing drug information to physicians and nurses.
 - c) Identify drugs brought into the hospital by patients.

- d) Reviewing of each patient's drug administration forms periodically to ensure all doses have been administered.

17. _____ is the organization to manage the procurement, storage, preservation, packaging, sterilization, compounding, preparation, dispensing or distribution of medicine.

- a) Clinical Pharmacy.
- b) Hospital Pharmacy.
- c) Community Pharmacy.
- d) Ambulatory Pharmacy.

18. Which of the following responsibility of community pharmacist is in dispensing area?

- a) Reviews all doses missed, reschedule the doses as necessary & signs all drugs not given notices.
- b) Supervision of drug administration.
- c) Ensures that establishes policies & procedures are followed.
- d) Reviewing of each patient's drug administration forms periodically to ensure all doses have been administered.

19. Which of the following is verbal communication skill for effective patient counselling?

- a) Language.
- b) Proximity.
- c) Facial expression.
- d) Eye contact.

20. The most specific & sensitive method for assessment of compliance can be used to detect potent therapeutic agent in body fluids is

- a) Drug analysis.
- b) Interrogation.
- c) Urine marker.
- d) Residual Tablet counting.

21. Which of the following reaction is called Augmented adverse drug reactions?

- a) Genetically determined effects.
- b) Idiosyncrasy.
- c) Rebound effect on discontinuation
- d) Allergic reactions & anaphylaxis.

22. Which one of these is a genetically determined adverse drug reactions?

- a) Addication.
- b) Teratogenicity.
- c) Carcinogenicity.
- d) Idiosyncrasy.

23. _____ is an example of Pharmacokinetic drug interaction.

- a) Gastric motility changes.
- b) Alteration of electrolyte levels.
- c) Drugs having antagonist's effects.
- d) Interactions at receptor site.

24. _____ causes pharmacodynamic drug interaction.

- a) Gastric motility changes.
- b) Stimulation of metabolism.
- c) Alteration of pH of GIT.
- d) Interactions at receptor site.

25. The age related physiological change in geriatric patient which may affect drug distribution is

- a) Increased body mass.
- b) Increased total body water.
- c) Increased total body fat.
- d) Increased serum albumin level.

26. Organogenesis occurs during _____ stage.

- a) Pre-embryonic.
- b) Embryonic.
- c) Pre-Fetal.
- d) Fetal.

27. _____ absorption in infants and children is noticeably faster than in neonatal period.

- a) Oral.
- b) Topical
- c) Intravenous.
- d) Intramuscular.

28. Which of the following drug does not require therapeutic drug monitoring?

- a) Digitoxin.
- b) Gentamycin.
- c) Phenytoin.
- d) Paracetamol

29. The studies are to determine a pharmacological profile, safe dose and assess potential toxicity of the product on laboratory animal is known as

- a) Observation study.
- b) Clinical study.
- c) Preclinical study.
- d) Statistical study.

30. Autonomy in clinical studies is defined as

- a) Freedom, dignity and confidentiality of the subject; right to choose
 - i. whether or not to participate in the trial or to continue with it.
- b) Motive to do good to the subject and/or the society at large.
- c) Not to do harm or put the participant at undue risk/disadvantage.
- d) Observance of fairness, honesty and impartiality in obtaining, analyzing

& communicating the data.

31. _____ is an example of latent adverse drug reactions.

- a) Antibiotic-associated diarrhea
- b) Tardive dyskinesia
- c) Serum sickness
- d) Severe bronchoconstriction

32. Drug increased risk of Reye's syndrome in children

- a) Valproate
- b) Mebendazole
- c) Salicylate
- d) sulfonamide

33. Mechanism by which **adrenaline** can prolong the duration of local anesthesia

- a) Decreased permeability of the vascular endothelium
- b) Precipitation of lidocaine
- c) Changing the pH of the solution
- d) Local Vasoconstriction

34. _____ antidiabetic drug is preferred for elderly patient

- a) Gliclazide
- b) Glibenclamide
- c) Metformin
- d) Pioglitazone

35. Side effects of Valproic acid is _____

- a) Rhinitis
- b) Thrombocytopenia
- c) Hypothyroidism
- d) Confusion

36. _____ side effect is seen during the treatment with Levodopa

- a) Dyskinesias
- b) Bone marrow depression
- c) Thombocytopenia
- d) Impotence

37. _____ is a major role of clinical pharmacist.

- a) Premarketing surveillance

- b) Postmarketing surveillance
- c) Preclinical study
- d) Patient Counseling

38. _____ is not required in TDM

- a) Dosing regimen
- b) Preclinical research data
- c) Time of the sample
- d) Indication for therapy

39. _____ drug is usually avoided with breastfeeding.

- a) Ibuprofen
- b) propranolol
- c) Methotrexate
- d) Naproxen

40. The sponsor in clinical study is

- a) Country.
- b) Organisation.
- c) Society.
- d) Cohort.

41. The written details for conduct trails to ensure quality control of trail is known as

- a) GCP.
- b) SOP.
- c) IEC.
- d) ADR.

42. What is bioequivalence?

- a) Comparison between 3-year-old drugs to the same new drug.
- b) Comparison between drugs to another drug.
- c) Comparison between a drug's specific characteristics to a defined set of Standards.
- d) Comparison between two or 3 characteristics of a drug to the same characteristics of a different drug.

43. Science of collecting, monitoring, researching, assessing and evaluating information from healthcare providers and patients on the adverse effects of medications is known as

- a) Pharmacovigilance.
- b) Clinical Trails.
- c) Observational study.
- d) Qualitative study.

44. Which of the following statements is true concerning epidemic diseases?

- a) They are usually not very contagious.
- b) At the end of an epidemic, a disease spreads at an increasing rate and then
 - i. abruptly disappears.

- c) They usually appear and disappear seasonally.
- d) It can be spread globally.

45. An epidemic that becomes unusually widespread and even global in its reach is referred to as

- a) Pandemic.
- b) Hyperendemic.
- c) Spanish flu.
- d) Endodermic.

46. OECD stands for

- a) Outcome economy committee development.
- b) Organization for Economic Co-operation and Development.
- c) Out entry contact dossier.
- d) Organization for Evasive Co-operation and Development.

47. Which of the following statements represents the best definition of pharmacoeconomics?

- a) Description and analysis of the costs of drug therapy to health care systems and to society.
- b) Process of identifying, measuring and comparing the costs, risks, and benefits of programs, services, or therapies and determining which alternative produces the best health outcomes for the resources invested.
- c) Putting principles, methods, and theories into practice to quantify the value of pharmacy products and services used in the real world.
- d) Studies that attempt to identify, measure, and evaluate the results of health care services in general.

48. Total cost associated with a programme where both costs and consequences are measured in monetary terms is called as

- a) Cost-effectiveness analysis.
- b) Cost-benefit analysis.
- c) Cost-utility analysis.
- d) Discounting.

49. Which is appropriate description of Average Costs?

- a) The value of opportunities which have been lost by utilizing resources in particular service or health technology.
- b) The total costs (i.e. all the costs incurred in the delivery of a service) of a health care system divided by the units of production.
- c) Independent of the number of units of production and include heating, lighting and fixed staffing costs.
- d) The cost of the consumption of medicines is a good example of variable costs.

50. _____ drug is avoided in children's under 4 years with diarrhea.

- a) bisacodyl
- b) loperamide
- c) Bismuth subsalicylate
- d) Ciprofloxacin

51. All are Selected Cytochrome P3A4 Inducer EXCEPT _____

- a) Efavirenz

- b) Erythromycin
- c) Dexamethasone
- d) Nevirapine

52. _____ is the common and dose related side effect of salbutamol.

- a) Decrease in blood pressure
- b) Muscle tremor
- c) Central nervous system stimulation
- d) Hyperglycaemia

53. According to Rawlins–Thompson classification Type D ADR includes _____

- a) Carcinogenesis
- b) Bradycardia associated with beta blockers
- c) Anaphylaxis associated with penicillin
- d) Opiate withdrawal syndrome

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SET 2

- Which of the following promotes the excretion of basic drugs?
 - Tartrates
 - Citrates
 - Bicarbonates
 - Ammonium chloride
- The comparison of bioavailability between two dosage forms is referred to as _____
 - Bioavailability
 - Biopharmaceutics
 - Biological
 - Bioequivalence
- The highest serum drug concentration following a single dose or at a steady state within a dosing interval is called
 - Lead
 - Peak
 - Poison
 - Mechanisms
- Why should care be taken when prescribing warfarin and amiodarone in combination?
 - Amiodarone and warfarin both have an anticoagulant effect.
 - Amiodarone may reverse the anticoagulant effect of warfarin.
 - Amiodarone may increase the anticoagulant effect of warfarin.
 - Warfarin may reverse the antiarrhythmic effect of amiodarone.
- Which of the following drugs causes Phocomelia?
 - Thalidomide
 - Paracetamol
 - Amoxicillin
 - Heparin
- The substantial degradation of an orally administered drug caused by enzyme metabolism in the liver before the drug reaches the systemic circulation.
 - First-pass metabolism
 - Disposition
 - Antagonist

D. Hydrophilic

7. According to ICH GCP the investigator "should be qualified by.....
- A. Training and experience
 - B. Education, training and experience
 - C. Education and experience
 - D. Education and training
8. An epidemic that becomes unusually widespread and even global in its reach is referred to as a _____.
- A. pandemic
 - B. hyper endemic
 - C. Spanish flu
 - D. Zoonotic
9. Pharmaceutical equivalent that produce the same effects in patients
- A. Therapeutic equivalent
 - B. Therapeutic window
 - C. Minimum effective concentration (MEC)
 - D. Minimum toxic concentration (MTC)
10. How are prescription medicines different from OTC ones?
- A. They contain much smaller amounts of active ingredients
 - B. They don't contain dyes or preservatives
 - C. They're unsafe for use without medical supervision
 - D. They can be toxic
11. Which of the following would be the most suitable course of action for a patient who refuses to take their prescribed medicine?
- A) Explain to the patient that the medicine should be taken as prescribed in order to get the benefit of treatment and that the risk of harm from licensed medicines is very low.
 - B) Explore the reasons why they don't wish to take their medicine and explain the benefits and risks of taking the medicine and the implications of not taking the medicine to the patient.
 - C) Explore the reasons why they don't wish to take their medicine and try to convince them that the benefits of treatment outweigh the risks.
 - D) Explain the benefits of taking the medicine and the implications of not taking the medicine to the patient.
12. The _____ is the heart of the patient counselling session
- A) Preparing for the session.
 - B) Opening the session.

C) Counselling content.

D) Closing the session.

13. Which of the following drug is implicated in the causation of osteomalacia of the bone?

A. Steroid

B. Estrogen

C. Heparin

D. Phenytoin

14. Which of the following drug can result in result in cyanide poisoning?

A. Amyl nitrite

B. Hydroxycobalamine

C. Sodium nitroprusside

D. Sodium thiosulphate

15. According to the principles of ICH GCP what should be recorded, handled, and stored in a way that allows its accurate reporting, interpretation and verification?

A. Data entered into the case report form

B. Source information

C. All clinical trial information

D. Essential documents

16. According to the principles of ICH GCP, what is the most important consideration when conducting a clinical trial?

A. data accuracy

B. protection of trial subjects

C. Process adherence

D. Statistical quality checks

17. What is informed consent in a clinical trial?

a) The subjects do not know which study treatment they receive

b) Patients injected with placebo and active doses

c) Fake treatment

d) Signed document of the recruited patient for the clinical trial procedures

18. Pharmacoeconomics studies include.....

A. the science and activities relating to the detection, assessment, understanding and prevention of adverse effects or any other medicine-related problem

B. Evaluates the cost (expressed in monetary terms) and effects (expressed in terms of monetary value, efficacy or enhanced quality of life) of a pharmaceutical product.

- C. the study and analysis of the distribution (who, when, and where), patterns and determinants of health and disease conditions in defined populations.
- D. the cost of branded medication, analysis of branded medication and its effect on manufacturer.

19. How many people will be selected for phase II trial?

- a) The whole market will be under surveillance
- b) 500-3000 people
- c) 100-300 people
- d) 20-50 people

20. Which of the following is a valid therapeutic use of interaction?

- A. Use of Probenecid with Penicillin
- B. Giving Aspirin with warfarin
- C. Instructing patient to take levofloxacin with milk or antacid
- D. Treatment of depression of MAO Inhibitor and Citalopram

21. Prevention of absorption due to Complexation and chelation of drugs in gastrointestinal tract is an example of.....

- A. Pharmacokinetic Interaction
- B. Pharmacodynamics Interaction
- C. Pharmaceutical Interaction
- D. Metabolic Interaction

22. Which of the following antihypertensive agents should be avoided in the elderly patients?

- A. Amlodipine
- B. Atenolol
- C. Benazepril
- D. Methyldopa

23. Which of the following medication is safe to use in the third trimester of pregnancy?

- A. Acetaminophen
- B. Warfarin
- C. Aspirin
- D. Oxycodone

Q24) Case control studies is called as

- A. Drug-oriented systems.
- B. Dose-oriented systems.
- C. Disease-oriented systems.
- D. Complication-oriented systems.

25. A 92-year-old woman is an inpatient in the geriatric unit. She has multivascular dementia. She is more confused and agitated. She has been given lorazepam 4 mg intramuscularly. She is now unconscious with a generalized tonic clonic seizure and a respiratory rate of 6 breaths per minute.

Which of the following could be used to reverse the effects of the lorazepam?

- A. Activated charcoal
- B. Flumazenil
- C. N-acetyl cysteine
- D. Naloxone
- E. Protamine sulphate

26. _____ of clinical trial involves first time human trial in a small number of patients.

- a Phase I
- b Phase II
- c Phase III
- d Phase IV

27. The purpose of preclinical testing is:

- a. To verify that a drug is sufficiently safe and effective to be tested in humans.
- b. To undergo preliminary testing in healthy humans to monitor the effects of the drug.
- c. To create a basic outline for the larger scale future tests on a widespread population.
- d. To develop method of drug analysis

28. Cimetidine interacts with more drugs than ranitidine because;

- a) It is subjected to greater first pass metabolism
- b) It is a more potent enzyme inducer
- c) It is a more potent enzyme inhibitor
- d) It has better oral absorption

29. What are Good Clinical Practices?

- a. Regulations set in place by Government that how clinical trials are supposed to be managed.
- b. Clinical practices that adhere to the best standards of care.
- c. Widely accepted standards of practice during clinical trials
- d. The FDA's requirements for how trials are conducted and documented

30. Which is person responsible for the conduct of the clinical trial at a trial site?

- a) Clinical Research Coordinator
- b) Monitor

- c) Investigator
- d) Sponsor

31. What does IRB Stand for?

- a) Investigational Review Board
- b) International Review Board
- c) Institutional Review Board
- d) Inter institute review board

32. GCP provides public assurance that

- a) Rights and safety of participants are protected
- b) The rights, safety and wellbeing of research participants are protected and that research data are reliable.
- c) Results are reliable
- d) Safety of participant is observed and results are reliable

33. Which of the following is a technique pharmacists can use to humanize themselves to their patients?

- a) Using the patient's preferred name in conversation
- b) Delegating as many tasks as possible to an assistant
- c) Reading the text of a medication bottle verbatim to a patient
- d) Providing business cards at the desk

34. Which of the following terms does not describe an Adverse Drug Reaction?

- a) Idiosyncrasy
- b) Anaphylaxis
- c) Teratogenic effect
- d) Placebo effect

35. A 75-year-old man had been receiving gentamicin (an aminoglycoside antibiotic) to treat an urinary tract infection. After three months of therapy patient's serum creatinine levels were 10 mg/dL (normal 0.5-1.2) and serum gentamicin concentrations obtained just before the last dose were 9 mg/dL (normal < 2). Which of the following is the most likely adverse drug reaction the patient was suffering from?

- a) Type II allergic reaction
- b) Type III allergic reaction
- c) Pseudo allergic reaction
- d) Overdose toxicity

36. Idiosyncrasy is_____.

- a) Type A ADRs
- b) Type B ADRs
- c) Type C ADRs
- d) Type D ADRs

37. Which of the following drug is not needed to be TDM?
- Carbamazepine.
 - Penicillin.
 - Digoxin.
 - Gentamicin.
38. Patient counselling helps to
- Know chemical structure of drug
 - Develop business relations with pharmacist
 - Motivate the patient to take medicine for improvement of his/her health status.
 - Pass time at old age
39. Gary baby syndrome occur in new born with
- Tetracycline
 - Chloramphenicol
 - Penicillin
 - Erythromycin
40. Absorption of Griseofulvin increases with -----diet.
- Carbohydrate
 - Fatty
 - protein
 - vitamin
41. When tetracycline is given with antacids the absorption of tetracycline -----.
- Increases
 - Decreases
 - Minimally altered
 - Not altered at all
42. Which of the following would you classify as a pharmacodynamics interaction?
- ACE inhibitors with potassium-sparing diuretics cause life-threatening hyperkalaemia
 - Antacids reduce the absorption of fluoroquinolones
 - Increased bleeding due to cimetidine and warfarin
 - Probenecid increases half-life of penicillin
- 43 Which of the following is Type B ADRS?
- Hypoglycaemia caused by Insulin
 - Dryness of mouth caused by Atropine
 - Anaemia in patient with G6PD deficiency caused by Primaquine
 - Hyperglycaemia caused by thiazide diuretics
44. Pharmacovigilance is done for monitoring of

- a) Drug price
- b) Unethical practises
- c) Drug safety
- d) Pharmacy students

45. GCP are seen in all of the following except

- a) Phase I trial
- b) Phase II trial
- c) Preclinical trials
- d) Phase IV trial

46. Which of the following adverse drug reactions would you report to the Medicines and Healthcare Products regulatory Agency (MHRA) via the yellow card system for reporting?

- a) A patient reports a skin rash after starting a course on amoxicillin capsules.
- b) A patient reports experiencing dyspepsia when they take their indomethacin capsules.
- c) A patient complains of a dry irritating cough since they have started taking ramipril.
- d) A patient complains they have experienced diarrhoea since taking azilsartan.

47. You are asked to compare the cost of four different antibacterial medicines. Which of the following treatment courses is the lowest cost?

- a) Medicine A costs £17.00 for 28 tablets. The adult dose is one tablet twice a day and the usual treatment duration is 7 days.
- b) Medicine B costs £30.00 for 100 tablets. The adult dose is one tablet four times a day and the usual treatment duration is 7 days.
- c) Medicine C costs £20.00 for 25 tablets. The adult dose is one tablet twice a day and the usual treatment duration is 5 days.
- d) Medicine D costs £25.00 for 14 tablets. The adult dose is one tablet each day and the usual treatment duration is 5 days.

48. Which of the following patients are at the highest risk of suffering from an adverse drug reaction?

- a) An 8 month year old infant receiving a prescription for an antibiotic.
- b) A 22 year old patient with asthma receiving prescriptions for inhalers to relieve and prevent their asthma.
- c) A 48 year old patient who has hypertension and receives a prescription for an ACE Inhibitor.
- d) A 68 year old patient who has oedema receiving a prescription for a diuretic.

49. What is a semi-synthetic drug?

- a) A drug isolated from nature and used without any further modification
- b) A drug made entirely in a lab from scratch
- c) The structure of a drug half-way through its preparation
- d) A drug which has been -made by nature and partly-modified in a lab

50 Which of the following statements best describes a lead compound?

- a) A compound that contains the element lead
- b) A compound from the research laboratory that is chosen to go forward for preclinical and clinical trials.
- c) A molecule that shows some activity or property of interest and serves as the starting point for the development of a drug.
- d) The first compound of a structural class of compounds to reach the market.

-----X-----X-----