



# Quiz

1. What is the process of getting a new medication molecule into clinical practice called?

- a) Drug manufacturing
- b) Drug development
- c) Drug marketing
- d) Drug distribution

Answer: b) Drug development

2. What is drug discovery research?

- a) Finding novel drugs
- b) Testing the safety and efficacy of drugs
- c) Manufacturing drugs in the laboratory
- d) Identifying active components in traditional medicines

Answer: d) Identifying active components in traditional medicines

3. How long does the drug development process on average?

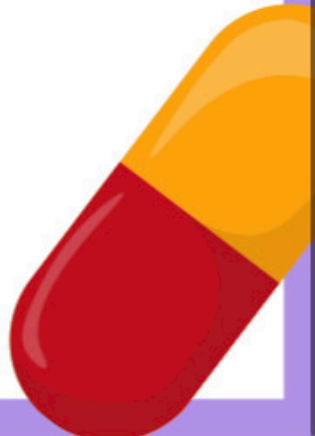
- a) 5 years
- b) 10 years
- c) 15 years
- d) 20 years

Answer: c) 15 years

4. How much does the drug development process cost on average?

- a) \$1 billion
- b) \$2 billion
- c) \$2.6 billion
- d) \$3 billion

Answer: c) \$2.6 billion





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5. What is the likelihood of a compound receiving FDA approval after going through clinical trials?

- a) 5%
- b) 10%
- c) 12%
- d) 15%

Answer: c) 12%

6. What is target selection in drug development?

- a) Choosing a specific biological action for therapy
- b) Identifying molecular targets for disease progressions
- c) Proving therapeutic benefit through molecular target manipulation
- d) Designing drugs to target cellular or genetic substances

Answer: a) Choosing a specific biological action for therapy

7. What is lead discovery in drug development?

- a) Evaluating compounds for toxicity and bioavailability
- b) Identifying chemical compounds or molecules that interact with the therapeutic target
- c) Changing the structure of molecules or compounds to create structural analogues
- d) Testing compounds on in vitro and in vivo systems

Answer: b) Identifying chemical compounds or molecules that interact with the therapeutic target

8. What is the purpose of preclinical research in drug development?

- a) To test the safety and efficacy of the drug in nonhuman subjects
- b) To gather preliminary information on safety and potential efficacy
- c) To compare the drug to other treatments in a larger group of patients
- d) To determine the best dosage and route of administration

Answer: a) To test the safety and efficacy of the drug in nonhuman subjects





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9. What are the elements included in clinical protocols?

- a) Objectives, patient selection criteria, and toxicity criteria
- b) Patient selection criteria, therapeutic intervention, and efficacy assessment
- c) Biostatistics, toxicity criteria, and analysis and interpretation
- d) Dose and schedule, clinical work-up, and primary endpoints

Answer: a) Objectives, patient selection criteria, and toxicity criteria

10. What is the purpose of a double-blind study in clinical trials?

- a) To compare the drug to other treatments
- b) To gather preliminary safety information
- c) To assess the safety of the drug in a larger group of patients
- d) To eliminate bias and determine the treatment's effectiveness

Answer: d) To eliminate bias and determine the treatment's effectiveness

11. What is the goal of Phase I trials in drug development?

- a) To determine the safety and tolerability of the drug
- b) To assess the drug's potential efficacy in a larger group of patients
- c) To compare the drug to other treatments
- d) To demonstrate whether the drug offers benefit to a specific population

Answer: a) To determine the safety and tolerability of the drug

12. How many volunteers participate in Phase I trials?

- a) Less than 50
- b) Less than 100
- c) Less than 500
- d) Less than 1000

Answer: b) Less than 100





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13. What is the purpose of Phase II trials in drug development?

- a) To assess the safety of the drug in a larger group of patients
- b) To gather preliminary safety and potential efficacy information
- c) To compare the drug to other treatments
- d) To demonstrate whether the drug offers benefit to a specific population

Answer: b) To gather preliminary safety and potential efficacy information

14. What is the purpose of Phase III trials in drug development?

- a) To assess the safety of the drug in a larger group of patients
- b) To gather long-term safety and effectiveness information
- c) To compare the drug to other treatments
- d) To demonstrate whether the drug offers benefit to a specific population

Answer: d) To demonstrate whether the drug offers benefit to a specific population

15. What is the final step in the drug development process?

- a) FDA approval
- b) Post-market monitoring
- c) Preclinical research
- d) Target selection

Answer: a) FDA approval





# Quiz

Answer Key:

1. b
2. d
3. c
4. c
5. c
6. a
7. b
8. a
9. a
10. d
11. a
12. b
13. b
14. d
15. a

