

1. The initial plasma concentration of a drug was found to be 2 mg/L following an intravenous dose of 300 mg. Which of the following is its apparent volume of distribution?

- A. 15 L
- B. 150 L
- C. 300 L
- D. 500 L
- E. 1000 L

Ans:b

2. If a drug has a clearance of 10 L/hr and a volume of distribution is 70 L, then $t_{1/2}$ of elimination of the drug is around:

- A. 80 hrs
- B. 20 hrs
- C. 10 hrs
- D. 5 hrs
- E. 2 hrs

Ans:d

3. A drug has a volume of distribution of 1500 L and a half-life of elimination of around 23 hours. Its clearance will be about:

- A. 5 L/hour
- B. 15 L/hour
- C. 30 L/hour
- D. 45 L/hour
- E. 90 L/hour

Ans:d

4. If the desired steady-state plasma concentration of the drug is 15 mg/L, and its clearance is 10 L/hour, the maintenance dose of the drug would be:

- A. 10 mg every hour
- B. 25 mg every hour
- C. 75 mg every hour
- D. 150 mg every hour
- E. 300 mg every hour

Ans:d

5. A drug has a therapeutic plasma concentration of 15 mg/L and a volume of distribution of 200 L. The loading dose of this drug should be:

- A. 250 mg
- B. 500 mg
- C. 1000 mg
- D. 2000 mg
- E. 3000 mg

Ans:e