

38 How does penicillin affect bacteria?

- A** It inhibits DNA replication by binding to nucleotides.
- B** It inhibits translation by preventing tRNA binding to ribosomes.
- C** It is a competitive inhibitor of an enzyme in cell wall synthesis.
- D** It is a competitive inhibitor of an enzyme in protein synthesis.

37 Scientists investigated the sensitivity and resistance of a bacterium called *Clostridium difficile* to four antibiotics. Colonies of bacteria were grown on agar plates for 24 hours, after which a different antibiotic was added to each plate. The number of bacterial colonies that died, stopped growing and continued growing were then counted. A bacterial colony is a group of bacterial cells that have multiplied from one bacterium.

Which antibiotic would be the best to treat a person infected with *Clostridium difficile*?

	antibiotic	number of colonies that died	number of colonies that stopped growing	number of colonies that continued growing
A	ampicillin	2	5	13
B	clindamycin	4	8	6
C	metronidazole	13	6	1
D	cefoxitin	9	5	4