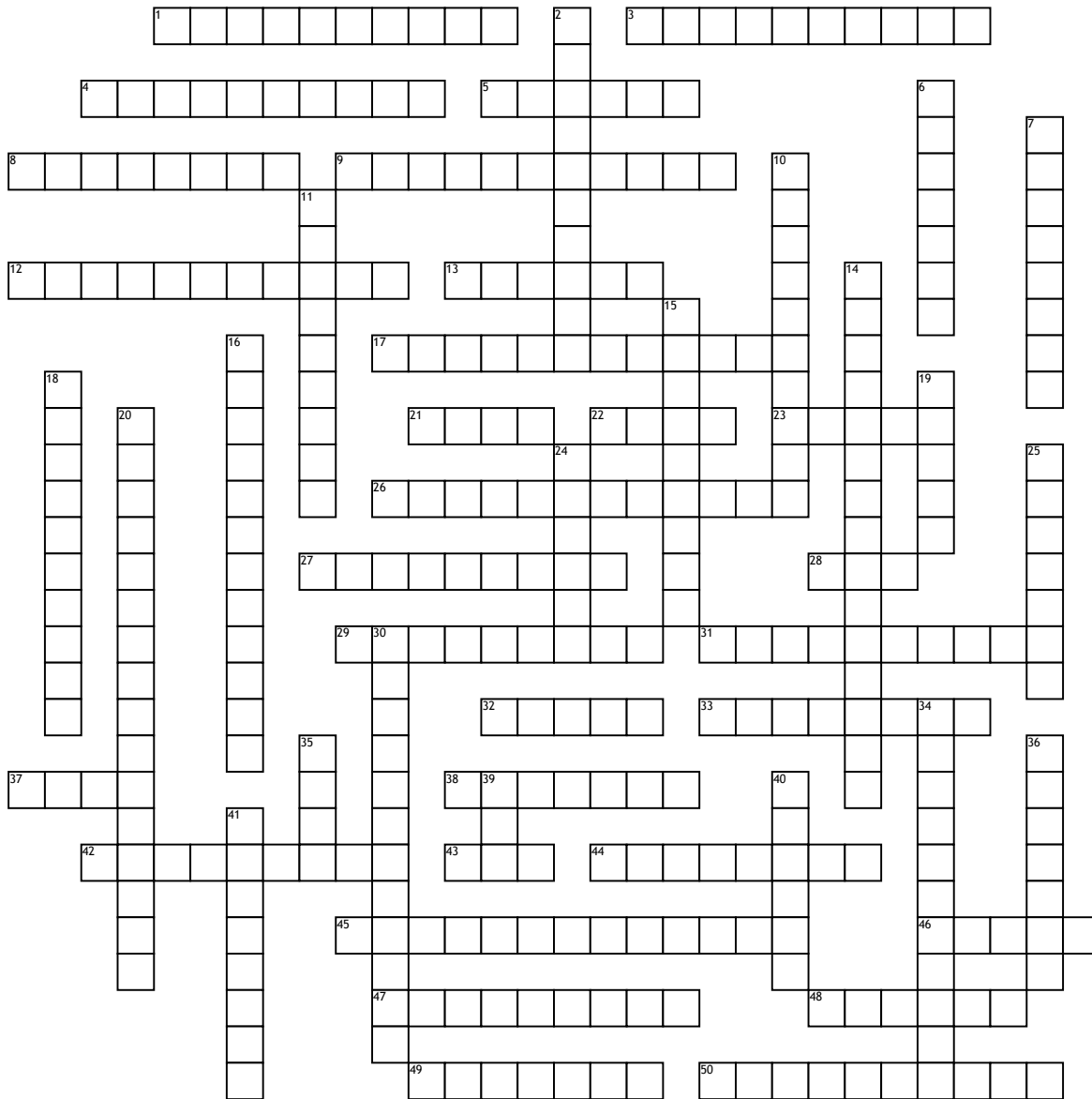


Clostridium difficile



Across

1. PaLoc is transferred by _____ recombination
3. the _____ has 947-1033 genes
4. main barrier against CDI is normal intestinal _____
5. part of *C. diff* with lots of protein structures
8. phylogenetic kingdom
9. type of prevention method
12. drug that can cause CDI
13. killer of *C. difficile* is 1:10 _____
17. patients can be _____ or have severe infection
21. a higher _____ of antibiotic can cause higher risk of contracting CDI
22. *C. difficile* typing in North America
23. amount of loose stools per day to consider CDI diagnosis
26. toxin A and toxin B are _____ sequences
27. growth characteristic
28. *C. difficile* contains _____ different clades
29. size of *C. diff* genome is 4.3 _____
31. antibiotic for CDI treatment
32. genes responsible for virulence factors of *C. difficile* are found on this element
33. third most common transmission of strain in Europe
37. clade _____ is non-toxicogenic
38. ineffective method of removing *C. diff* spores
42. preventative measure against CDI infection

43. number of tests to ensure proper diagnosis of CDI
44. shape of chromosome
45. drug used to treat CDI
46. bile acids are converted in this organ
47. age when CDI risk greatly increases
48. _____ exposure can lead to increased risk of infection
49. primary bile salts _____ spore germination
50. Gram positive, anaerobic bacterium in the intestinal tracts of animals and humans

Down

2. fecal _____ is the best way to prevent CDI
6. secondary bile salts _____ spore formation
7. a new strain of resistant *C. diff* was caused by a _____ mutation
10. Phylum (3)
11. route of transmission
14. new resistant strain
15. type of genome in *C. difficile*
16. type of cell wall
18. one of the most significant _____ infection
19. the rate of _____ by CDI is 1.3% within 30 days of infection
20. The _____ of *C. difficile* is 3.2×10^{-7} mutations per nucleotide per year
24. *C. difficile* creates _____ in the colon

25. *C. difficile* can remain _____ for a long period of time
30. restriction _____ analysis was used for showing strain diversity and transmission
34. type of testing to diagnose CDI
35. *C. diff* spores are _____-resistant
36. example of CDI animal model
39. *C. difficile* has a _____ homologous recombination rate
40. *C. diff* has _____ 29,000 people in 2011
41. symptoms of CDI include: severe _____, colitis, toxic megacolon, and even death