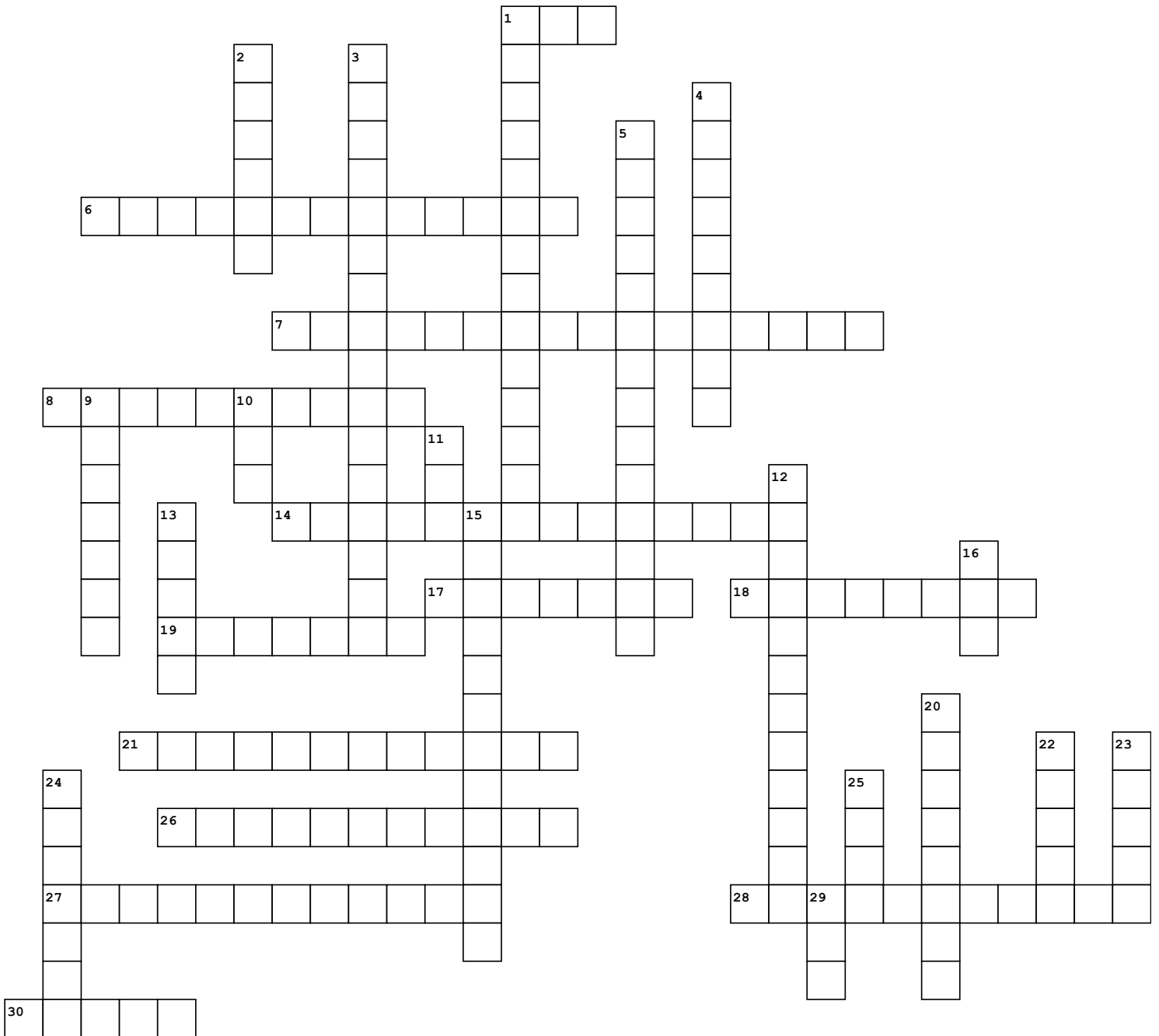


Viral Hepatitis



Across

1. the protein that is an oncogene for HBV
6. these proteins of HCV are hypervariable and as a result, neutralizing antibodies aren't protective
7. the levels of E antigen in the blood are an indicator of the measure of a patients
_____.
8. this virus can predispose one to hepatocellular carcinoma but has no oncogenes

Down

1. the family that HBV belongs to
2. this period is when surface antibodies aren't being made yet in a patient newly infected with HBV
3. levels are highly elevated during acute viral hepatitis
4. the food item usually associated with HAV outbreaks in developed regions

14. the detection of this HBV product must be present for at least half a year for a patient to be declared a chronic carrier
17. this substance greatly enhances the rate of hepatocellular carcinoma development in those with chronic HCV infection
18. is the mode of transmission for HEV belonging to genotypes 3 and 4 in developed regions
19. what the Ag in HBeAg stands for
21. the family the defective hepatitis virus belongs to
26. vaccine of Hepatitis B
27. the family that HCV belongs to
28. the family of this hepatitis virus that causes high levels of mortality in pregnant women in the 3rd trimester
30. the only antigen that is encoded on the HDV genome
5. when an individual who is a HBV carrier becomes infected with HDV, this infection results a high chance of developing cirrhosis
9. the common name for HEV
10. the molecule that when detected can diagnose HAV infection
11. the nucleic acid type for all hepatitis viruses except HBV
12. the HCV envelope is acquired through this cellular system
13. is the only viral component in the recombinant HBV vaccine
15. this immune response causes the damage and death of liver cells
16. this is how many consecutive months a patient must be positive for viral HCV RNA to declare a chronic infection
20. is when the skin and whites of the eyes turn yellow due to a high level of bilirubin
22. the primary transmission route for HCV
23. if a patient is positive for Core antibody (IgM but not IgG), and is positive for E-antigen, they are at this stage of the infection
24. what the s in HBsAg stands for
25. this protein makes up the nucleocapsid in HBV virions
29. this test must be performed on samples after an initial antibody test is positive for HCV antibodies