

Name _____

Date _____ Per _____ A# _____

Disinfectant

Joseph Lister (for whom Listerine is named) was a British physician who was interested in the role of bacteria in human infections. He suspected that germs were involved in transmitting infection, and so he tried using carbolic acid as an operating room disinfectant. In 75 surgeries he used carbolic acid 40 times. Of the 40 surgeries using carbolic acid, 34 of the patients lived. In the 35 surgeries without carbolic acid, 19 lived. Summarize those results in the following two-way table.

	Patient lived	Patient died	Total
Carbolic Acid used as disinfectant			
NO Carbolic Acid used as disinfectant			
Total			

- What is the independent variable?
- What percentage of the surgeries used carbolic acid as a disinfectant?
- What percentage of the patients lived?
- What percentage of the patients who were given carbolic acid as a disinfectant lived?
- What percentage of the patients who were NOT given carbolic acid as a disinfectant lived?

f) Make a segmented bar graph with carbolic acid (used/not used) as a disinfectant on the horizontal axis and each bar segmented by survival.

g) Make a segmented bar graph with survival (lived/died) on the horizontal axis and each bar segmented by use of carbolic acid as a disinfectant.

h) Does there appear to be an association between the use of disinfectant and patient survival rate? Use clear, complete sentences to state and justify your answer.