Case 23: Treatment Protocol and Adverse Reactions

A research team at a medical center investigates the possible relationship between a new treatment protocol and adverse reactions in patients with chronic kidney disease. 40 patients are randomly selected and randomly assigned to the treatment and control groups. The research team organizes their findings in the following contingency table (Table 5.9):

TABLE 5.9: Contingency Table of Treatment Groups and Adverse Reactions.

	Adverse Reaction	No Adverse Reaction
Treatment Group	2	18
Control Group	8	12

Does the new treatment protocol significantly reduce the occurrence of adverse reactions in patients with chronic kidney disease?

Case:

Initial Questions

1. What are the research objectives?

2. What are the statistical questions?

3. What is the response variable, and what is the data type of the response variable?

4. What are the explanatory variables of interest?

5. Are there covariates?

6. What is the population of interest?

7. What is the subject, and what is the number of distinct subjects?

8. Are there subject-level data?

9. Are response variables dependent (repeated measures / clustered subjects)?

10. Are the subjects selected randomly?

11. Are the subjects randomly assigned to different groups?

Initial Thoughts

