

Example of a good SAQ answer from 2019 paper

Question 4:
a) What are “controls” in a case-control study? (1 mark)
b) Briefly describe the advantages and disadvantages of a case-control study. (6 marks)
c) Briefly describe the general principles of selecting controls. (3 marks)

a) controls in a case control study are subjects who are from the same population as the cases and matched for age, sex etc; who are at similar risk of developing the outcome, but without the outcome of interest that is present in the cases.

b)

Advantages:

- can look at rare outcomes
- relatively cheap, quick and easy to perform as can use existing datasets (retrospective)
- can look at multiple risks/exposures at once
- good for conditions with long latency

Disadvantages:

- can be difficult to find appropriate controls
- data may be incomplete and/or unreliable, especially if subjects are asked to remember past events; cases more likely to remember events (recall bias)
- can be difficult to establish temporality of exposure versus outcome and cannot prove causation
- can only estimate relative risk; odds ratios generally tend to be more difficult to comprehend by physicians/patients

c) Controls are selected from the same population as cases (same country/region, same risk factors). Controls should be contemporaneous. They must be as closely matched to the cases as possible (aside from the outcome of interest): age, gender, race, comorbidities, con meds, other risk factors) to help reduce potential confounders. Ratio of controls to cases can be higher than one to one.