CRITICAL APPRAISAL OF A CASE-CONTROL STUDY
CASE-CONTROL WORKSHEET

Citation:

Are the results valid?	
1. Was there a clearly defined, focused research question? What was the study question?	
2. Did the authors clearly identify or define the study base? What was the study base?	
3. How were cased defined? Was the case definition adequate? Were the cases incident or prevalent?	
4. Were all cases selected? If not, was there a well defined selection procedure (i.e. consecutive or random sampling) for inclusion of cases into the study? What proportion of eligible cases was actually included in the study (i.e. non-response rate)?	
5. How were controls defined? Was the control definition adequate? Were the controls free of the disease being studied? What type of control group was selected (e.g. hospital, community, friend)?	
6. How were controls selected? Was there a well defined selection procedure (e.g. density sampling) for inclusion of controls into the study? Were the controls selected from the study base? Were controls selected independent of the exposure status? What proportion of eligible controls was actually included in the study (i.e. non-response rate)?	

7. How were the exposures ascertained? Were the exposures clear, specific and measurable? Were objective measurements used? Any likelihood of exposure misclassification?	
8. Was the exposure ascertainment similar for cases and controls?	
9. Was exposure ascertainment done independent of the case/control status (i.e. blinded)?	
10. Was recall bias likely? What steps were taken to limit recall bias?	
11. How comparable were the cases and controls? Did the authors identify all potentially important confounders? Is there information on how the potential confounders are distributed between the two groups? What confounders were adjusted for and was the adjustment adequate? Is residual confounding a concern?	

Any other potential biases in this study?

Potential for selection bias?	

Potential for information bias?	
Potential for confounding?	
Was there a clear rationale for the sample size or power estimation?	
Are the analytic strategies clearly described? Were the data analytic methods appropriate for the research question and study design (e.g. matched pair analysis)?	

What are the results?

What are the study results?	
1. How strong was the association between exposure and outcome (e.g. odds ratio)?	
2. How precise was the estimate of the association (i.e. confidence intervals around the point estimates or p-values)?	

Can you apply the results to patient care?	
1. Were the study participants similar to the patient in your practice? -Does your patient match the study inclusion criteria? -If not, are there compelling reasons why the results should not apply to your patient?	
2. Were all clinically important outcomes considered?	
3. Do the results of this study fit with other available evidence?	

In summary:

What are the major strengths of this study?
What are the major limitations of this study?
Are there any major ethical concerns with this study?