9.9 Quality assessment of diagnostic studies

Review of diagnostic studies

The Center for Evidence Based Medicine provides a useful approach to quality appraisal of diagnostic studies. Review the advice regarding how to identify important elements in studies of diagnostic test accuracy. You will have to develop some concise decision rules based on recommendations for each item.

For example

Item 1 reads

Was the diagnostic test evaluated in a representative spectrum of patients (like those in whom it would be used in practice)?

The advice is

It is ideal if the diagnostic test is applied to the full spectrum of patients – those with mild, severe, early and late cases of the target disorder. It is also best if the patients are randomly selected or consecutive admissions so that selection bias is minimized.

There appears to be two decision rules required to address this item

Decision rule 1

The test was applied to the full spectrum of patients. What is considered ‘the full spectrum’ will vary with the diagnostic test under review. This would need to be defined prior to commencing critical appraisal of included studies

Decision rule 2

Patients were randomly selected or entered the study as consecutive admissions: Yes, if either of these conditions were reported; No, if neither of those conditions were reported.

Complete this process for all items in the Diagnostic Study Appraisal Worksheet prior to commencing critical appraisal of included studies.