Critical appraisal – Diagnostic testing studies

This is a modified version of the BestBETs critical appraisal checklist for diagnostic testing studies. See <https://bestbets.org/>.

Paper appraised: *(authors, year, and title)*

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| --- | --- |
| **Introduction** |  |
| Are the aims clearly stated? |  |
| **Methods** | |
| Is the study design suitable for the aims? |  |
| What population of animals was being studied? |  |
| Was this the right sample to answer the objectives? |  |
| Was an independent blinded gold standard test applied to all subjects? |  |
| Is it clear what measurements were carried out in the study? |  |
| Were the correct measurements chosen?  Do they that reflect (or are they strongly related to) the outcome of interest? |  |
| Were previously established validated methods used to make the measurements?  (e.g. Glasgow pain score, International Units etc.) |  |
| What outcomes were measured? |  |
| Are the statistical methods described? |  |
| Was the statistical significance level stated? |  |
| Was the sample size justified? |  |
| Was ethical approval obtained? |  |
| Overall, are the methods described in enough detail that you could repeat them? |  |
| **Results** | |
| Were the basic data adequately described? |  |
| Do the numbers add up?  Are all subjects accounted for? |  |
| Was the statistical significance (p value) stated in the results?  Is this consistent with the methods? (It should be stated in the sample size or power calculation) |  |
| What were the main findings/key results? |  |
| **Discussion and conclusion** | |
| What do the main findings/key results mean? |  |
| Are the negative findings\* discussed?  How are the negative findings\* interpreted? |  |
| Does the discussion reflect the results? |  |
| **Interpretation** | |
| What are the clinical implications of this study?  Are the subjects in the study similar to those you see? |  |
| **General** | |
| Who funded this study? |  |

\*Results where there was not a statistically significant difference found