Reviewer's report

Title: Diagnosis of rectal cancer by Tissue Resonance Interaction Method

Version: 2 Date: 12 January 2010

Reviewer: Cosimo De Nunzio

Reviewer's report:

The authors evaluated the possibility to detect rectal cancer with the TRIMprob. They have partially replied to previous comments. However major concerns still remain. The authors still considered the hot point of their publication the use of a 70 U as a cut off point to reduce false negative. However the study design does not allow this conclusion. TRIMprob used a visual real time cut-off (two bars are about 50 UI) to define the presence of cancer. The authors should considered their experience only as a first step to plan a new study where the TRIMprob will be performed using a different visual cut-off (3 or more bars). You can not perform the test using a two bars visual scale and than analyse the data using a different cut-off.

The possible presence of bladder and prostate cancer was excluded using a TC scan. However TC scan is not considered a test to evaluate the possible presence of prostate cancer (PSA, DRE are the standard). This point should be considered and discussed as a possible limitation to the study results. AUC is 0.96 and accuracy is 90.0 a type error?.

Data obtained form the trimprob in this study could not be compared to data obtained for faecal occult blood test. The study does not compare TRIMprob with other non-invasive tests (this point should be clarified in the discussion section). Data on accuracy of colonscopy for diagnosis of colon cancer should be included or referred to the available literature.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

'I declare that I have no competing interests'