

### 147 A Meta-Analysis Comparing the Diagnostic Accuracy of Initial RT-PCR And CT Scan in Suspected COVID-19 Patients

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**Introduction:** Reverse transcriptase Polymerase chain reaction(RT-PCR) is considered as the gold standard diagnostic test for COVID-19 infection. It's accuracy has been doubted and subsequently had effects on planning, performing operations causing. Research has suggested the use of Computed Tomography Scan instead. In this study we performed a meta-analysis comparing the diagnostic accuracy of CT compared to RTPCR.

**Method:** Our systematic review and meta-analysis were undertaken as per PRISMA guidelines. The methodological quality of each included study was assessed using the QUADAS-2 tool on RevMan 5.3. We performed data analyses using Stata version 12.

**Results:** Sensitivity estimates for CT scan ranged from 0.69 to 1.00 and for RT-PCR varied ranging from 0.47 to 1.00. The pooled estimate of sensitivity for CT was 0.95 (95% CI – 0.88-0.98) and specificity was 0.31 (95% CI – 0.035-0.84). It was found that specificity of initial RT-PCR(100%) was higher than CT(31%). With respect to sensitivity, CT(95%) was superior to RT-PCR(91%) p (0.000)

**Conclusions:** Sensitivity of CT is significantly higher than RT-PCR for detecting COVID-19 infection, however as CT findings are not specific. Since CT scans are readily available, protocols can be developed to utilise it to minimize delay in planning surgery.