

Performance of SARS-CoV-2 rapid antigen test (RAT) compared with real-time PCR (RT-PCT)





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INTRODUCTION Malaysia had reached 5 million COVID-19 cases as of March 2023. Perak alone recorded 236,756 cases with 2,522 deaths. The use of rapid antigen test (RAT) for Covid screening is highly significant and beneficial since it is inexpensive, convenient and provides fast results compared to the real-time polymerase chain reaction (RT-PCR) test.

OBJECTIVE This study aims to show evidence that RAT is comparable with RT-PCR.

METHOD

46,909

cases in Perak were reported through SIMKA (Jan-Jun 2021)

Exclusion: 795 (insufficient patient data)

46,114

cases selected for data cleaning Exclusion: 1156 (test requested other than RAT & RT-PCR)

44,958

cases selected for data cleaning Exclusion: 34,318 (duplicate data)

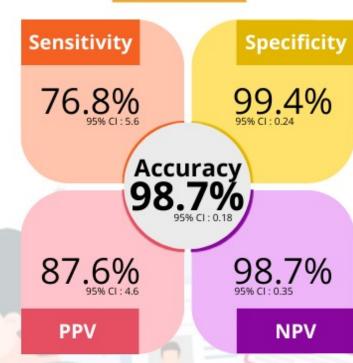
10,640

cases selected for data cleaning

1,066 cases selected for the study

Exclusion: 9574 (incomparable data >24 hours apart)

RESULTS



Cohen's kappa (κ) = **0.81**±0.043

** Indication of a **solid agreement** between both results of RAT and RT-PCR

CONCLUSION

proves that RAT performance is consistent with RT-PCR.

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