

**PERBANDINGAN JENIS VTM CLASSIC DAN INACTIVATED
TERHADAP HASIL PEMERIKSAAN SARS-CoV-2 DENGAN METODE
REAL TIME PCR**

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ABSTRAK

Coronavirus Disease 2019 (COVID-19) adalah penyakit jenis baru yang belum pernah diidentifikasi sebelumnya pada manusia. Yang disebabkan virus corona jenis baru, yakni virus 2019-nCoV, yang kini dikenal dengan sebutan virus SARS-CoV-2 (*Severe Acute Respiratory Syndrome Coronavirus 2*). WHO merekomendasikan pemeriksaan molekuler/NAAT (*Nucleic Acid Amplification Test*) seperti pemeriksaan *Real Time PCR* untuk seluruh pasien yang terduga terinfeksi COVID-19. Pengambilan spesimen untuk tes PCR ini menggunakan *Swab Dacron* atau *Flocked Swab* dalam *Viral Transport Medium (VTM)*. *Viral Transport Medium (VTM)* terdiri dari 2 jenis yaitu *Universal/Classic* dan *Inactivated (I-VTM)*. Tujuan penelitian ini adalah untuk mengetahui perbandingan jenis *VTM Classic* dan *Inactivated* terhadap hasil pemeriksaan SARS-CoV-2 dengan metode *Real Time PCR* berdasarkan hasil kajian studi literatur. Penelitian ini menggunakan metode *Systematic Literature Review (SLR)* dengan melakukan pencarian data sekunder menggunakan database elektronik Google Scholar, NCBI, PubMed, Malaria Journal, Scientific Reports, JEM dan PLOS One. Diperoleh dari 7 jurnal penelitian yang memiliki kesamaan tema penelitian dan dapat mewakili tujuan penelitian, sehingga dimasukkan dalam proses review. Analisis data dilakukan dengan metode analisis deskriptif. Berdasarkan hasil studi literatur ini, didapatkan kesimpulan tidak terdapat perbandingan nilai Ct yang signifikan antara hasil pemeriksaan sampel SARS-CoV-2 dalam *VTM jenis Classic* dan *VTM jenis Inactivated* dengan menggunakan metode *Real Time PCR*.

Kata Kunci : COVID-19, SARS-CoV-2, *Viral Transport Medium*, *Real Time PCR*, Jenis VTM

**COMPARISON OF CLASSIC AND INACTIVATED VTM TYPES TOWARDS
RESULTS OF SARS-CoV-2 EXAMINATION WITH REAL TIME PCR**

METHOD

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ABSTRACT

Coronavirus Disease 2019 (COVID-19) is a new type of disease that has never been previously identified in humans. It is caused by a new type of corona virus, namely the 2019-nCoV virus, which is now known as the SARS-CoV-2 virus (Severe Acute Respiratory Syndrome Coronavirus 2). WHO recommends molecular examination/NAAT (Nucleic Acid Amplification Test) such as Real Time PCR examination for all patients suspected of being infected with COVID-19. Specimen collection for this PCR test uses Dacron Swab or Flocked Swab in Viral Transport Medium (VTM). Viral Transport Medium (VTM) consists of 2 types, namely Universal/Classic and Inactivated (I-VTM). The purpose of this study was to compare the classic and Inactivated VTM types to the results of the SARS-CoV-2 examination using the Real Time PCR method based on the results of a literature study. This study uses the Systematic Literature Review (SLR) method by searching for secondary data using the electronic databases of Google Scholar, NCBI, PubMed, Malaria Journal, Scientific Reports, JEM and PLOS One. There were 7 research journals that have the same research theme and can represent the research objectives so that they are included in the review process. Data analysis was done by descriptive analysis method. Based on the results of this literature study, it was concluded that there was no significant comparison of Ct values between the results of the examination of SARS-CoV-2 samples in Classic VTM and Inactivated VTM using the Realtime PCR method.

Keywords: COVID-19, SARS-CoV-2, Viral Transport Medium, Real Time PCR, Types of VTM