MeMoSA®: A Teleconsultation App for Follow up of Patients with Oral Potentially Malignant Disorder During the COVID 19 Pandemic

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ABSTRACT

Introduction: Patients oral potentially malignant disorders (OPMD) require regular follow-up which was disrupted during the COVID-19 pandemic. At least 50% of patients had their appointments cancelled or postponed during the pandemic. To facilitate continued care, we evaluated the use of the MeMoSA®, as an application for teleconsultation. **Methods:** OPMD patients on long-term follow-up in University Malaya, Malaysia were invited to participate. Survey 1 was used to assess patients' knowledge and perception of teleconsultation. Patients who consented used MeMoSA® to capture and upload images of their oral lesion. Answers to clinical questions and the images were reviewed by specialists on MeMoSA® before a video teleconsultation through WhatsApp. Survey 2 was administered post-teleconsultation to assess usability and acceptance. Patients were examined face-to-face within three months from teleconsultation. Data were analysed using RStudio Statistical Software. **Results:** Forty-seven patients answered Survey 1. The majority were aged above 50 years (85.1%) and had oral lichen planus (87.2%). Thirty-two of the 47 (72.3%) participated in teleconsultation. Knowledge on teleconsultation was low (34%), but more than 77% had positive perception. Seventy-percent of patients would like teleconsultation to be integrated within their care. Ninety-percent of patients agreed that teleconsultation increases convenience and accessibility to care. The majority (80%) found MeMoSA® to be simple and easy to use. In 83.3% of patients, specialists found that images and information provided during teleconsultation were sufficient for clinical decision making, similar to face-to-face examination. A 100% of patients would like to continue having teleconsultation as an option. **Conclusion:** Teleconsultation is well-accepted by patients and could facilitate OPMD patient follow-up particularly during the COVID-19 pandemic.

Agreement on Nucleic Acid Manual Extraction Method Versus Automated Extraction Method in SARS-CoV-2 and Two Different Commercially Available Polymerase Chain Reaction Assays

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ABSTRACT

Introduction: The availability of multiple Polymerase Chain Reaction (PCR) assays and extraction methods for SARS-CoV-2 viral ribonucleic acid cause a concern on their agreement. Since March 2020, Clinical Research Centre (CRC) Laboratory in Sibu Hospital conducts validation tests on new assays/kit to understand their performance. This study evaluated the agreement of the results between different extraction methods and PCR assays. **Methods:** We searched the laboratory data for any PCR results where different viral nucleic acid extraction methods, namely: GeneAll® RibospinTM vRD and Nextractor® (NX-48, Genolution, South Korea) and different assays, namely: Allplex™ SARS-CoV-2 Assay (Seegene, Seoul, Korea) and the Real-Q 2019-nCoV Real-Time Detection (BioSewoom, Seoul) were used to from January to May 2021. We created a pooled gold standard by defining any samples detected positive using any techniques. **Results:** The agreements for samples extracted manually versus automated method and run on Seegene was 0.869; on BioSewoom was 0.899. When extracted manually or using automated, the agreements for two different assays were 0.911 and 1.000, respectively. Cyclic threshold (Ct) using automated extraction was significantly lower in both assays ($p<0.001$). Compared to the pooled gold standard, both assays performed well using automated extraction, but BioSewoom extracted manually had lower sensitivity (86.67%; 95% CI: 69.28, 96.24) and negative predictive value (96.49%; 95% CI: 91.70, 98.56). **Conclusion:** The assays and extraction methods were generally in good agreement and accurate, albeit some differences. It is important to understand their performance to guide the interpretation and assist in patients' management and pandemic.