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## Abstract

SARS-CoV-2 has an incubation period ranging from 1 to 14 days, however some studies have shown that the virus can be present for more than 14 days. This study aimed to assess the persistence of SARS-CoV-2 using clinical-epidemiological information and nasopharyngeal swab sample of patients admitted to HUM by performing qRT-PCR. It was possible to observe that 70.2% of samples with more than 7 days of symptoms had a detectable result. These result serve as a warning for reviewing clinical management criteria and isolation time recommendation.

## Introduction

SARS-CoV-2 is an respiratory virus that has an incubation period with an interval of 1 to 14 days. Isolation recommendations are based on this time, however some studies demonstrate that the virus can still be present for more than 14 days in upper respiratory tract samples.

Incubation Period (1-14 days)	+ ? days
Recommended Isolation Time (Ministry of Health) 10 days - Flu syndromes	
Recommended Isolation Time (CDC) 14 days	

This study aimed to evaluate the persistence of SARS-CoV-2 in the upper respiratory tract of patients admitted to Regional University Hospital of Maringá (HUM).

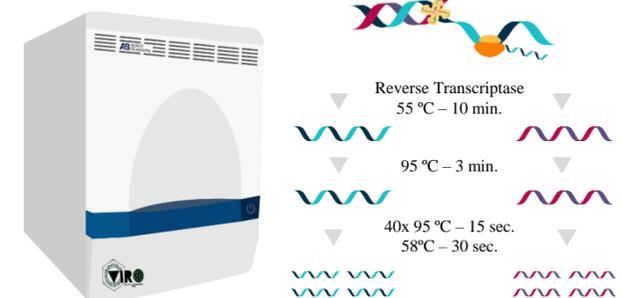
## Materials and methods

Clinical and epidemiological information were obtained from the medical records of patients contained in the *Sistema de Gestão Hospitalar e Ambulatorial do SUS* (GSUS).

- Age
- Gender
- Status (death/discharge)
- Symptom time (until the time of sample collection)

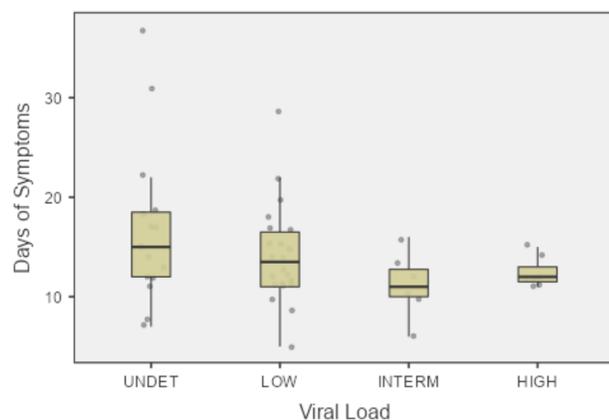
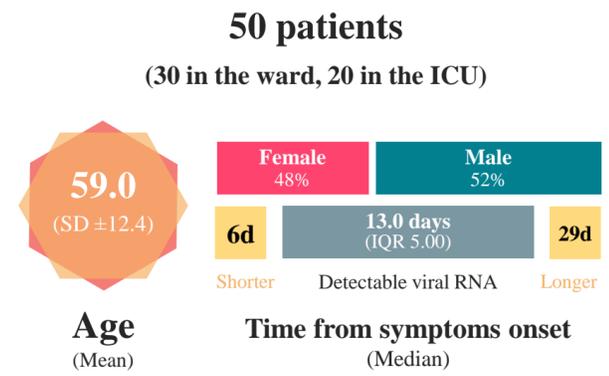
## For extraction, analysis and amplification of viral RNA:

- Magmax™ Pathogen RNA/DNA kit
- Mastermix Superscript™ III Platinum One-Step qRT-PCR kit
- Applied Biosystems™ 7500 Real-Time PCR System



Approved by COPEP/UEM Protocol nº 4.634.043

## Results



\*All samples with a **high** viral load were obtained from patients with more than 10 days of symptoms onset.

## Conclusion

Was possible to detect the viral RNA of SARS-CoV-2 for a time longer than 10 days (recommended isolation time for symptomatic individuals) of symptoms.

## Recommendations

- [1] Li N, Wang X, Lv T. Prolonged SARS-CoV-2 RNA shedding: Not a rare phenomenon. *J Med Virol.* 2020 Nov 22;92(11):2286–7.
- [2] Aranha C, Patel V, Bhor V, Gogoi D. Cycle threshold values in RT-PCR to determine dynamics of SARS-CoV-2 viral load: An approach to reduce the isolation period for COVID-19 patients. *J Med Virol.* 2021 Dec 23;93(12):6794–7.

## Acknowledgements

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