

# Does mouthrinsing and gargling with povidone iodine and hydrogen peroxide reduce the number of SARS-CoV-2 viruses in patients with no and mild symptoms?

<b>Submission date</b> 18/01/2022	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 03/02/2022	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 20/12/2022	<b>Condition category</b> Infections and Infestations	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Coronavirus disease 2019 (COVID-19) can spread rapidly. During surgical procedures in the mouth, the risk of transmitting SARS-CoV-2 virus is high. The American Dental Association (ADA) and Centers for Disease Control and Prevention (CDC) recommend mouthrinsing with 1.5% hydrogen peroxide or 0.2% povidone iodine to reduce the risk of transmission by reducing the number of viruses in mouth and throat. This study aims to analyse if mouthrinsing and gargling with 1% povidone iodine, 0.5% povidone iodine, 3% hydrogen peroxide, 1.5% hydrogen peroxide and water will make any difference to the number of viruses.

### Who can participate?

Adults 19 - 60 years old confirmed positive of SARS-CoV-2, diagnosed for less than three days at Persahabatan Central General Hospital during 1st July – 30th September 2021 with no or mild symptoms.

### What does the study involve?

Participants were given mouthrinsing and gargling education through video conference, and mouthrinse that had been repackaged. Participants would need to perform mouthrinsing for 30 seconds in the mouth and gargling and 30 seconds in the back of the throat with 15 mL of mouthrinse 3 times a day for 5 days. The mouthrinsing and gargling activity was carried out in the self-isolation room of each research subject by using video conference. Participants were subjected to RT-PCR test on day 1, day 3 and day 5 after the mouthrinsing and gargling intervention.

### What are the possible benefits and risks of participating?

The mouthrinsing and gargling procedures with povidone iodine or hydrogen peroxide were likely to benefit participants by reducing the numbers of viruses in the upper respiratory tract.

Furthermore, this study allows future benefits in reducing SARS-CoV-2 transmission during oral and maxillofacial surgery if the mouthrinsing and gargling procedures are recommended and implemented.

Where is the study run from?

The study was run by Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Universitas Indonesia, and took place Persahabatan Central General Hospital (Indonesia)

When is the study starting and how long is it expected to run for?

June 2021 to October 2021

Who is funding the study?

Investigator initiated and funded

Who is the main contact?

Dr Lilies Dwi Sulistyani, [lilies.dwi@ui.ac.id](mailto:lilies.dwi@ui.ac.id)

## Contact information

### Type(s)

Principal Investigator

### Contact name

Dr Lilies Dwi Sulistyani

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## Additional identifiers

### EudraCT/CTIS number

Nil known

### IRAS number

### ClinicalTrials.gov number

Nil known

## Secondary identifying numbers

Nil known

# Study information

## Scientific Title

The evaluation of povidone iodine and hydrogen peroxide mouthrinsing and gargling on CT value of SARS-CoV-2: a randomized controlled trial in asymptomatic and mild symptomatic patients

## Study objectives

There is an effect of mouthrinsing and gargling with 1% and 0.5% povidone iodine, as well as 3% and 1.5% hydrogen peroxide on the CT value of RT-PCR SARS-CoV-2.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Approved 16/06/2021, Persahabatan Central General Hospital (Jl. Persahabatan Raya No.1, RT.16 /RW.13, Rawamangun, Kec. Pulo Gadung, Kota Jakarta Timur, DKI Jakarta 13230 Indonesia; +62 (021) 22472222; info@rsuppersahabatan.co.id), ref: 68.A.1/KEPK-RSUPP/11/2021

## Study design

Interventional single centre single blind randomized parallel trial

## Primary study design

Interventional

## Secondary study design

Randomised parallel trial

## Study setting(s)

Hospital

## Study type(s)

Prevention

## Participant information sheet

Not available in web format, please use contact details to request a participant information sheet

## Health condition(s) or problem(s) studied

COVID-19 (SARS-CoV-2 infection)

## Interventions

Research subjects were given mouthrinsing and gargling protocol education through video conference and given mouthrinse that had been repackaged. The 1% povidone iodine group rinsed with BETADINE® Mouthwash and Gargle solution. The 3% hydrogen peroxide group rinsed with a solution from OneMed™. The group of 0.5% povidone iodine and 1.5% hydrogen peroxide rinsed with a diluted solution of 1% iodine povidone BETADINE® Mouthwash and

Gargle and 3% hydrogen peroxide OneMed™ added with sterile distilled water with the formula  $\text{Volume1} \times \text{Concentration1} = \text{Volume2} \times \text{Concentration2}$ .

There were two intervention groups and one control group:

- Intervention 1: 1% povidone iodine
- Intervention 2: 0.5% povidone iodine
- Intervention 3: 3% hydrogen peroxide
- Intervention 4: 1.5% hydrogen peroxide
- Control: mineral water

Research subjects performed mouthrinsing for 30 seconds in the oral cavity and gargling and 30 seconds in the back of the throat with 15 mL of mouthrinse 3 times a day for 5 days. The mouthrinsing and gargling activity was carried out in the self-isolation room of each research subject by using video conference.

### **Intervention Type**

Drug

### **Phase**

Not Applicable

### **Drug/device/biological/vaccine name(s)**

1% povidone iodine BETADINE®, 3% hydrogen peroxide OneMed™

### **Primary outcome measure**

Viral load measured using CT value of the RT-PCR examination on day 1, day 3 and day 5 after the mouthrinsing and gargling intervention

### **Secondary outcome measures**

There are no secondary outcome measures

### **Overall study start date**

16/06/2021

### **Completion date**

30/10/2021

## **Eligibility**

### **Key inclusion criteria**

1. Patients of Persahabatan Central General Hospital, (COVID-19 national referral centre)
2. Patients infected with SARS-CoV-2 and identified through RT-PCR with positive results at Persahabatan Central General Hospital during 1st July – 30th September 2021 with CT values  $\leq 30$
3. Asymptomatic patients or with mild symptoms
4. Patients being diagnosed with COVID-19 for less than three days
5. Aged 19 - 60 years old

### **Participant type(s)**

Patient

### **Age group**

Adult

**Sex**

Both

**Target number of participants**

75

**Total final enrolment**

69

**Key exclusion criteria**

1. Patients not willing to be research subjects
2. Patients with comorbid and thyroid diseases
3. Pregnant patients
4. Patients routinely consumed lithium drugs
5. Patients undergoing radioactive iodine treatment
6. Patients allergic to povidone iodine and hydrogen peroxide

**Date of first enrolment**

01/07/2021

**Date of final enrolment**

30/09/2021

## **Locations**

**Countries of recruitment**

Indonesia

**Study participating centre**

**Persahabatan Central General Hospital**

Persahabatan Raya No.1, RT.16/RW.13, Rawamangun, Pulo Gadung

East Jakarta

Indonesia

13230

## **Sponsor information**

**Organisation**

Universitas Indonesia

**Sponsor details**

Oral and Maxillofacial Surgery Department

Faculty of Dentistry

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Indonesia  
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oralmaxillofacialsurgery@ui.ac.id

**Sponsor type**

University/education

**Organisation**

Persahabatan Central General Hospital

**Sponsor details**

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Kec. Pulo Gadung  
Kota Jakarta Timur  
Daerah Khusus Ibukota  
Jakarta  
Indonesia  
13230  
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rsupp\_labmikro@yahoo.com

**Sponsor type**

Hospital/treatment centre

**Funder(s)**

**Funder type**

Other

**Funder Name**

Investigator initiated and funded

**Results and Publications**

**Publication and dissemination plan**

Planned publication in a high-impact peer-reviewed journal

**Intention to publish date**

01/09/2022

**Individual participant data (IPD) sharing plan**

The datasets generated during and/or analysed during the current study are not expected to be made available due to the confidentiality of the patient's data policy from Persahabatan Central General Hospital.

### IPD sharing plan summary

Not expected to be made available

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>		01/11/2022	20/12/2022	Yes	No