

A study to assess the usefulness of combination of Vitamin D, magnesium and Vitamin B12 in older COVID-19 patients

Submission date 29/05/2020	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
Registration date 01/06/2020	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 17/03/2021	Condition category 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

The COVID-19 pandemic which began in late 2019 has raged across the globe with more than 4 million infections and 300,000 deaths recorded to date. A broad theme of immune overreaction has emerged as a key determinant of disease severity and patient outcome. Intuitively, immunomodulation becomes an attractive potential treatment strategy. Besides lung involvement, COVID-19 is a multi-organ phenomenon and appropriate systemic inflammatory control is necessary for overall survival benefit. Much of the current treatment effort is targeted at viral elimination instead of modulating immune overreaction. A number of immunomodulatory agents may be helpful including vitamin D, magnesium and vitamin B12. Importantly, these compounds are generally safe and well-tolerated by patients. A short course of these three supplements (DMB) could potentially exert synergistic effects to improve COVID-19 severity. This study aims to determine the usefulness of combination of vitamin D, magnesium and vitamin B12 in older COVID-19 patients.

Who can participate?

COVID-19-positive patients aged 50 and over

What does the study involve?

Patients will be given a combination of vitamin D, magnesium and vitamin B12, up to 14 days. The risk of clinical deterioration (requirement for supplemental oxygen and/or intensive care support) is measured using patient records from the hospital information system at day 30.

What are the possible benefits and risks of participating?

If proven to be effective, DMB could reduce the severity of COVID-19 in older patients. There is minimal risk since these supplements are generally safe and well-tolerated by patients.

Where is the study run from?

Singapore General Hospital (Singapore)

When is the study starting and how long is it expected to run for?
March 2020 to May 2020

Who is funding the study?
Investigator initiated and funded

Who is the main contact?
Dr Liam Pock Ho
gpthlp@sgh.com.sg

Contact information

Type(s)
Scientific

Contact name
Dr L Ho

ORCID ID
<https://orcid.org/0000-0001-5146-7565>

Contact details
Department of Clinical Pathology, Level 7, Academia
20 College Road
Singapore
Singapore
169856
+65 (0)63214626
gpthlp@sgh.com.sg

Additional identifiers

Protocol serial number
CIRB 2020/2344

Study information

Scientific Title
A cohort study to evaluate the effect of combination vitamin D, magnesium and vitamin B12 (DMB) on progression to severe outcome in older COVID-19 patients

Acronym
DMB

Study objectives
Does administering a combination of vitamin D, magnesium and vitamin B12 (DMB) to older COVID-19 patients reduce the severity of their infection?

Ethics approval required

Old ethics approval format

Ethics approval(s)

Approved 19/05/2020, SingHealth institutional ethics committee (Singapore Health Services Pte Ltd, 31 Third Hospital Avenue, #03-03 Bowyer Block C, Singapore, 168753; +65(0) 6225 0488; irb@singhealth.com.sg), ref: 2020/2344

Study design

Observational cohort study

Primary study design

Observational

Study type(s)

Treatment

Health condition(s) or problem(s) studied

COVID-19 (SARS-CoV-2 infection)

Interventions

Therapy comprised a single daily oral dose of vitamin D3 1000 IU, magnesium 150 mg and vitamin B12 500 mcg for up to 14 days, with follow-up to Day 30 from onset of symptoms.

Intervention Type

Supplement

Primary outcome(s)

The risk of clinical deterioration, defined as the requirement for supplemental oxygen and/or intensive care support, measured using patient records from hospital information system at day 30

Key secondary outcome(s)

There are no secondary outcome measures

Completion date

15/05/2020

Eligibility

Key inclusion criteria

All consecutive COVID-19-positive patients aged 50 years and above admitted to Singapore General Hospital during the study period

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Mixed

Sex

All

Total final enrolment

43

Key exclusion criteria

Does not meet inclusion criteria

Date of first enrolment

06/04/2020

Date of final enrolment

15/04/2020

Locations

Countries of recruitment

Singapore

Study participating centre

Singapore General Hospital

Outram Road

Singapore

Singapore

169608

Sponsor information

Organisation

SingHealth

ROR

<https://ror.org/04me94w47>

Funder(s)

Funder type

Other

Funder Name

Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan

The data-sharing plans for the current study are unknown and will be made available at a later date.

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/11/2020	17/03/2021	Yes	No