Covid High-intensity Immunosuppression in Cytokine release syndrome

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON20650

Source
NTR

Brief title
CHIC

Health condition

COVID-19 pneumonia

Sponsors and support

Primary sponsor: Zuyderland Medical Center
Source(s) of monetary or material Support: so far none specific

Intervention

Outcome measures

Primary outcome

1. Time to clinical improvement: defined as the time from start of immunosuppressive treatment to improvement of at least 2 points on an ordinal scale 1-7 or hospital discharge, whichever comes first. This endpoint is recommended by WHO and used as the primary endpoint in the Lopinavir-Ritonavir trial. (17) The ordinal scale categories are: 1) non-hospitalized, able to resume normal activities; 2) non-hospitalized, but unable to resume

normal activities; 3) hospitalized, not requiring oxygen therapy; 4) hospitalized, requiring additional oxygen therapy; 5) hospitalized, requiring high-flow nasal oxygen therapy, non-invasive mechanical ventilation, or both; 6) hospitalized, requiring ECMO, mechanical ventilation, or both; and 7) death.

Secondary outcome

2. 3- and 6-months functionality by 6 minutes walking test and by a questionnaire on the number of stairs climbed and distance walked
3. 3- and 6-months quality of life by EQ-5D
4. Mortality at 28 days
5. Time to improvement in 1 point in the clinical status scale (see 1)
6. Clinical status as assessed with the 7-category ordinal scale on day 7 (see 1)
7. Clinical status as assessed with the 7-category ordinal scale on day 14 (see 1)
8. Time until invasive ventilation
9. Duration of mechanical ventilation
10. Duration of hospitalization in survivors
11. Time until independence from oxygen therapy
12. Level of O2 support throughout admission
14. Improvement in CT score (CO-RADS) at 5 days
15. Increase in lymphocytes at 5 days
16. Decrease in CRP at 5 days
17. Decrease in ferritin at 5 days
18. Decrease in D-dimers at 5 days
19. Time (in days) from treatment initiation to death
20. Adverse events (of immunosuppressive treatment)
21. Serious adverse events (of immunosuppressive treatment)
22. Premature discontinuation of immunosuppressive treatment

Study description

Background summary

Patients diagnosed with COVID-19 and severe pulmonary involvement (COVID-19 pneumonia; CORADS >=4) who present to the emergency department with compromised respiratory status (O2 requirement) are screened for treatment protocol. A CRS is deemed to exist if at least two of the following three criteria are met: CRP>100; Ferritin>900, D-Dimers>1500. After informed consent, patients are treated with methylprednisolone (MP) receive 250mg bolus intravenously, followed by at least 4 days MP 1mg/kg body weight iv (bolus). If the clinical situation deteriorates or does not improve after 48 hours, a single tocilizumab (8mg/kg body weight) is added.
Patients are monitored daily in a 24/7 multidisciplinary consultation responsible for treatment decisions, with emphasis on immunosuppressive regime and optimal anticoagulation. Outcome measures are collected up to 6 months after admission: mortality, discharge, ICU

admission, respiratory status (including oxygen support) and 3- and 6-month functionality and QoL.
The results of this cohort study will be compared with the results of age-gender and prognostic factor-matched control patients with COVID-19 pneumonia from before the start date of the protocol (1-4-2020). This concerns more than 400 patients.

Study objective

Patients with COVID-19 related CRS treated with immunosuppressive treatment have better clinical outcomes compared to patients treated according to standard care.

Study design

3, 5, 7, 10, 14, 28 days and 3 and 6 months

Intervention

Methylprednisolone, eventually supplemented by tocilizumab

Contacts

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Eligibility criteria

Inclusion criteria

Eligibility for immunosuppressive treatment is based on the Zuyderland treatment protocol (named; ‘Standpunt werkwijze behandeling COVID Zuyderland’, due to frequent updates will the most recent version be leading at any time).
According to Zuyderland treatment protocol version from 01.04.2020, this means:
1. Detection of diffuse interstitial pneumonia or bilateral infiltrations on chest x-ray or CO-

RADS score ≥4 based on CT-thorax findings
2. Oxygen saturation at rest in ambient air ≤ 94% or tachypnea ≥30/min.
3. Presence of at least 2 of the following risk factors for CRS
a. High ferritin (> 900 ug/L or two times the level at admission within 48 hours)
b. High C-reactive protein (> 100 mg/L)
c. High D-dimer (> 1500 ug/L)

Exclusion criteria

No specific exclusion criteria

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	23-04-2020
Enrollment:	160
Type:	Anticipated

IPD sharing statement

Plan to share IPD: Undecided

Ethics review

Positive opinion

Date:	23-04-2020

Application type: First submission

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL8551
Other	Bureau Wetenschappelijk Onderzoek Zuyderland Medical Center : Z2020077

Study results