SARS-CoV-2 transmission among supporters attending soccer mass gathering events

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Ethical review	Approved WMO
Status	Pending
Health condition type	Other condition
Study type	Observational invasive

Summary

ID

NL-OMON49304

Source ToetsingOnline

Brief title SARS-CoV-2 transmission

Condition

• Other condition

Synonym Coronavirus, SARS-CoV-2

Health condition

Virus transmissie

Research involving

Human

Sponsors and support

Primary sponsor: Erasmus MC, Universitair Medisch Centrum Rotterdam **Source(s) of monetary or material Support:** Erasmus MC Foundation

Intervention

Keyword: Events, SARS-CoV-2, Transmission

Outcome measures

Primary outcome

Proportion of supporters who are tested positive for SARS-CoV-2 up to 2 weeks

after attending the soccer match.

Secondary outcome

- Proportion of positive SARS-CoV-2 tests in a random sample of supporters

before each match

- Proportion and location of surface swabs taken after the match in which

SARS-CoV-2 was detected

- Proportion of supporters who tested positive for SARS-CoV-2 before the match

that were already symptomatic (suffering from COVID-19 related symptoms) at

time of the test.

Study description

Background summary

The majority of professional sport matches were cancelled or played without supporters during the SARS-CoV-2 pandemic. The highest echelon of professional soccer in the Netherlands (*the Eredivisie*) will resume in September 2020. Supporters will be allowed to attend these matches under specific restrictions regarding physical distancing and triage, but in popular clubs this may amount to high numbers of individuals. A recent study concluded soccer matches to be safe for the players, as the number of high-risk contact moments during matches is limited (1). However, possible transmission of SARS-CoV-2 among supporters attending soccer matches has not yet been studied.

Study objective

Our objective is to study SARS-CoV-2 transmission of a- and pre-symptomatic carriers during a mass gathering event with social distancing and hygiene public health measures.

Secundary objectives:

- To estimate the prevalence of a- and pre-symptomatic SARS-CoV-2 infections among visitors of a mass gathering event.

- To assess environmental contamination with SARS-CoV-2.

- To asses compliance to public health advices among soccer supporters who attended the match.

Study design

This study is a longitudinal observational cross-sectional cohort study. Supporters of soccer club Feyenoord will be followed for six consecutive home matches starting November 2020 (depending on when supporters are permitted to enter the stadium). Supporters include season cardholders attending the match and employees working at stadium *de Kuip* during the match. Due to COVID-19, only a supporters owning a season card will be allowed to attend the home matches.

All season card holders of soccer club Rotterdam (Feyenoord) and employees working in the stadion will be asked to participate in this study by email. Oro- and nasopharyngeal swabs will be obtained before each match. The swabs, used for the detection of SARS-CoV-2, will be obtained from a yet to be determined randomly selected amount supporters attending the match. Environmental specimens (surface swabs and sewage waste water) will be collected both during (sewage) and after the match. SARS-CoV-2 transmission will be identified using enhanced surveillance via the diagnostic test facility of the local public health service (*GGD teststraat*). Positive specimens will be sequenced by whole-genome sequencing for transmission chain analysis. An overview of study events is shown in Appendix A (in Dutch).

1. Environmental specimen

efore and after each home match surface swabs and sewage waste water will be collected. Surface sampling for the detection of SARS-CoV-2 will be performed according to the WHO surface sampling guidelines (7).

2. Oro- and nasopharyngeal swab

Before each soccer match a random sample of supports will be asked to get

tested for SARS CoV 2. A naso- and oropharyngeal swab a will be collected and tested by RT-PCR. Data of the tested supporters will be collected. The GGD will be informed if supporters were positive for SARS-CoV-2. Our research team will inform supporters who are positive for SARS-CoV-2 and ask specific questions in order to decide if the supporter was a- or pre- symptomatic at the time of the test. These supporters will be followed up by the GGD for routine contact tracing. Samples might also be tested for other respiratory viruses or other pathogens.

3. Surveillance by GDD contact tracing

The GGD will implement specific questions on Feyenoord soccer match attendance or contact with someone who attended a soccer match to the questionnaire used for routine contact tracing. Consequently, if the patients has attended the match, specific questions on entrance location and seat number at the stadium will be asked.

4. Whole genome sequencing of SARS-CoV-2

All positive specimens will be sequenced using whole-genome sequencing (WGS) at the Erasmus MC (EMC) Viroscience laboratory to identify transmission clusters. Specimens obtained from supporters before attending the match will be tested by RT-PCR and positive specimens will be sequenced at the department of Viroscience at Erasmus MC. Positive specimens from supporters identified via the GGD diagnostic facilities will be requested from the respective laboratories within the GGD Rotterdam Rijnmond region and sent to Erasmus MC for WGS.

Study burden and risks

Undergoing a naso- and oropharyngeal swab is unconfortable. However, participation is voluntary and provides valuable information for the supporter himself. There are no risks associated with the collection of a naso and oropharyngeal swab.

Contacts

Public Erasmus MC, Universitair Medisch Centrum Rotterdam

's-Gravendijkwal 230 Rotterdam 3015 CE NL **Scientific** Erasmus MC, Universitair Medisch Centrum Rotterdam 's-Gravendijkwal 230 Rotterdam 3015 CE NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age Adults (18-64 years) Elderly (65 years and older)

Inclusion criteria

- Season card holder or employee of Feyenoord working during the match
- Age * 18 years old
- Written informed consent

Exclusion criteria

- Not a season card holder or employee of Feyenoord working during the match
- Age <18 years old
- Not willing to provide written informed consent

Study design

Design

Study type: Observational invasive	
Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Health services research

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Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-01-2021
Enrollment:	3600
Туре:	Anticipated

Ethics review

Approved WMO	
Date:	05-01-2021
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

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 CCMO **ID** NL75228.078.20