ANRS 0003S - COCOPREV

(Information for researchers)

Prevention of COVID-19 complications in high-risk subjects infected with SARS-CoV-2 and receiving curative treatment. A prospective cohort

Headings	**Content**
In a nutshell	Investigator/Principal Investigator : Dr *Youri Yordanov and Prof Guillaume Martin-Blondel*
	Structure/teams : - Saint Antoine Hospital Emergency Department - Department of Infectious and Tropical Diseases, Toulouse University Hospital - IPLESP, Institut Pierre Louis d'Epidémiologie et de Santé Publique - INSERM UMR-S 1136/ Sorbonne Universités - Toulouse Institute of Infectious and Inflammatory Diseases (Infinity) - Virology Laboratory, Hôpital de la Pitié Salpêtrière - Virus and Immunity Unit, Institut Pasteur, CNRS UMR 3569 / Université Paris Cité
	Start date/End date 21/09/2021 - 18/12/2023
	Number of participants: 756
	Status: *data currently being analysed*
	Pathology:
	Promotion: *Inserm-ANRS MIE*
	Funded as part of : CAPNET
The project (250 words max)	The ANRS 0003S COCOPREV study is a national cohort which aims to study the response to curative treatments developed to reduce COVID-19-related complications in infected patients at risk during the pandemic period.
References of Publications (if any)	• Martin-Blondel G, Marcelin AG, Soulié C, ..., Carrat F, Yordanov Y. Time to negative PCR conversion amongst high-risk patientswith mild-to-moderate Omicron BA.1 and BA.2 COVID-19 treated with sotrovimab ornirmatrelvir. Clin Microbiol Infect. 2023 Apr;29(4):543.e5-543.e9. doi:10.1016/j.cmi.2022.12.016. Epub 2022 Dec 28. PMID: 36586513; PMCID: PMC9794519. • Martin-Blondel G, Marcelin AG, Soulié C, ..., Liblau R, Carrat F, Yordanov Y; COCOPREV Study Group. Outcome of very high-risk patientsstreated by Sotrovimab for mild-to-moderate COVID-19 Omicron, a prospectivecohort study (the ANRS 0003S COCOPREV study). J Infect. 2022Jun;84(6):e101-e104. doi: 10.1016/j.jinf.2022.04.010. Epub 2022 Apr 7. PMID:35398409; PMCID: PMC8988484. • Bruel T, Vrignaud LL, Porrot F, Staropoli I, Planas D, ..., Dorival C, Molino D, Péré H, Yordanov Y, Simon-Lorière E, Veyer D,Carrat F, Schwartz O, Marcelin AG, Martin-Blondel G; ANRS 0003S CoCoPrev StudyGroup. Sotrovimab therapy elicits antiviral activities against Omicron BQ.1.1and XBB.1.5 in sera of immunocompromised patients. Med. 2023 Oct13;4(10):664-667. doi: 10.1016/j.medj.2023.07.007. PMID: 37837962. • Leducq V, Zafilaza K, Fauchois A, Ghidaoui E, Sayon S, Dorival C, Meledje ML, Lusivika-Nzinga C, Yordanov Y, Martin-Blondel G, Carrat F, Marcelin AG, SoulieC; COCOPREV Study Group. Spike protein genetic evolution in patients at high-risk of severe COVID-19 treated by monoclonal antibodies. J Infect Dis. 2023 Nov23:jiad523. doi: 10.1093/infdis/jiad523. Epub ahead of print. PMID: 37996072
Type of study	National prospective multicentre cohort, non-comparative.
Main objectives	To assess the clinical course of patients infected with SARS-CoV-2 at high risk of complications and receiving curative treatment.

Secondary objectives	• Assess virological progression and its determinants • Assessing secondary complications and their determinants • Assessing tolerance to treatment • Assessing the risk of emergence of resistant variants • Assess the feasibility of early prevention of secondary complications • Assessing the immunological response after treatment and its determinants
	Investigator/Principal Investigator : Dr *Youri Yordanov and Prof Guillaume Martin-Blondel*

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Main inclusion criteria	1. Adults presenting the indication criteria for curative treatments under cohort ATU (Temporary Authorisation for Use) / AAP (Early Access) / AAC (Compassionate Access) or AMM (Autorisation de Mise sur le Marché). 2. Be a member or beneficiary of a social security scheme (article L1121-11 of the French Public Health Code) (Aide Médicale d'Etat or AME is not considered to be a health insurance scheme). 3. Have given their free, informed and written consent, co-signed by the investigator and recorded in the patient's medical file (at the latest on the day of inclusion and before any examination carried out as part of the research) (article L1122-1-1 of the French Public Health Code).
Main non-inclusion criteria Specific to Research	1. Criteria for ineligibility for curative treatments under cohort ATU / AAP / AAC or MA 2. Patient taking part in another study with an exclusion period still in progress at the time of inclusion 3. Vulnerable patients (persons under guardianship or curatorship, or deprived of their liberty by a judicial or administrative decision) 4. Pregnant or breast-feeding women
Primary endpoint:	Proportion of patients included in the cohort hospitalised (if the patient was ambulatory) or whose hospitalisation was prolonged (if the patient was hospitalised) for complications of COVID-19 in the month following the onset of the first symptoms
Secondary endpoint(s) :	**Virological evolution and its determinants :** - Proportion of virological response defined by a CT ≥ 31 or a negative PCR test at D7 for patients included in outpatient care, at D3, D5, D7 for hospitalised patients - Pre- and per-therapeutic clinical and biological predictive factors linked to virological response (viral genotypes, emergence of resistant strains) **Assessment of secondary complications and their determinants** - Proportion of patients hospitalised for any reason within one month of the onset of symptoms - Proportion of patients with a WHO score ≥5 - Proportion of patients in intensive care unit (ICU)/resuscitation within one

	month of onset of symptoms - Proportion of patients who died from complications of COVID19 for any reason within one month of the onset of symptoms - Proportion of patients included who died for any reason within one month of onset of symptoms - Proportion of patients included who were hospitalised or died for any reason within one month of the onset of symptoms - Pre- and per-therapeutic clinical and biological factors predictive of the occurrence of complications of COVID19, hospitalisation and death. **Assessment of treatment tolerance :** - Proportion of patients with an adverse reaction to treatment, - proportion of treatment initiated and interrupted due to an adverse reaction, - proportion of patients with a serious treatment-related adverse event **Assessment of the risk of emergence of resistant variants** - Virological criteria linked to the emergence of resistance: proportion of patients included who develop resistance variants, genotypic and phenotypic characterisation of resistance variants, time to PCR negativity, etc. **Assessing the feasibility of early prevention of secondary complications** - Delays between first symptoms and treatment, and the elements that make up these delays (symptoms- >recourse to care->initial visit->treatment) **Evaluation of the immunological response after treatment and its determinants:** - Identification of immune and inflammatory markers predictive of response to treatment and of the impact of treatment on the characteristics of the antiviral cellular immune response (by sampling at D0, D7 and M1) (ancillary immunology study) - Serological criteria at D0 (day of treatment) and M3: Proportion of patients with positive anti-N and anti-S serology at D0 and M3, rate of anti-S antibodies at D0, titration of neutralising antibodies against the different variants at M3. - Pre- and per-treatment clinical and biological predictive factors linked to the neutralising serological response: non-response, duration of response, etc.
Monitoring procedures	D3 and D5 only for inpatients D7 and then every 7 days for patients with a positive SARSCoV2 PCR with a Ct < 31 M1 M3 (for the first 100 patients per strategy)

Data and samples collected	**Biotech libraries**	Nasopharyngeal swabs at D0 and D7, repeated on a weekly basis only in patients with a positive SARSCoV2 PCR with a Ct < 31. Specifically for hospitalised patients: D3, D5) Serum at D0, D7, M1 and M3 Plasma at D0 and D7 Whole blood at D0 and D7 PBMC for participants in the immunological sub-study at D0, D7 and M1
	Data	• the circumstances surrounding the diagnosis of COVID and the patient's progress, • the main co-morbidities, current treatments and previous preventive or curative treatments for COVID, • information about symptoms and their history, • history of vaccination or documented infection with SARS-CoV-2: IMPORTANT:. Depending on the recommendations for the use of treatments, a screening PCR verifying the absence of resistant variants may be required before treatment (e.g. in the event of high prevalence at territorial level). • clinical examination • adverse events occurring since the administration/initiation of treatment • regression/persistence of symptoms or appearance of new symptoms, • virological testing

B - How to access the collection

1- project submission**: via the sample request form on the website**

2- project assessment: **scientific committee**

3- Making the collection available**: final decision by ANRS MIE management or Scientific Council**

Contact e-mail address for submitting your project: **biobanque@anrs.fr**

Translated with DeepL Pro from the original French version.