Safety and Efficacy of Intramuscular COVID-19 Convalescent Immunoglobulin Prophylaxis in Healthcare Personnel at Risk of SARS-CoV-2 Infection as a Result of Their Patient Care Activities

Who is conducting the study, why you have been asked to participate, how you were selected, and what is the approximate number of participants in the study?

Drs. John Guatelli, Maile Karris, Michael Oxman, Samuel Penziner, and their associates are conducting a research study to find out more about using injections of immunoglobulins (IG) to prevent the development of COVID-19. You have been asked to participate in this study because you are a healthcare worker who is at high risk for exposure to SARS-CoV-2 and the development of COVID-19. There will be approximately 2000 participants in this study.

Why is this study being done?

The purpose of this study is to evaluate the safety and effectiveness of giving intramuscular injections of immunoglobulin (IG, the fraction of the blood that contains antibodies) from people who have recovered from COVID-19 (COVID-IG) to uninfected healthcare workers to see if this protects them from developing COVID-19. Intramuscular IG is a proven strategy to protect people from many infectious diseases, but it is not known if COVID-IG is protective.

What will happen to you in this study and which procedures are standard of care and which are experimental?

If you agree to participate in this study, you will need to:

1. You will provide a medical history to characterize your health. This will include questions about your personal background (age, race, etc.) as well as questions about any medical conditions and medications, and symptoms suggestive of COVID-19. This information will only need to be collected once at your first visit.
2. You will be assessed and monitored for any symptoms suggestive of COVID-19. This will be performed at days 0, 3, 7, 14, 28, and every 2 weeks thereafter. We will use a simple text messaging platform so that this can be performed by text messaging.
3. You will undergo a urine pregnancy test if you were born as a female and are between the ages of 18-60 years.
4. You will have your vital signs monitored initially (temperature, heart rate, and blood pressure).
5. You will undergo swabs deep in your nose (nasopharyngeal swabs) to screen for SARS-CoV-2. This will occur on day 0, 3, 7, 14, 28, and every 2 weeks thereafter. First you will be asked to blow your nose into a tissue to clear your nasal passages. You will then be asked to tilt your head back slightly so the nasal passages become more accessible. The swab will be gently inserted along the nasal septum until resistance is felt. This will occur in both nostrils.
6. You will undergo blood draws to evaluate the level of antibodies to SARS-CoV-2 in your bloodstream. This will occur on day 0, 3, 7, 14, 28, and every 2 weeks thereafter. A total
of 36 milliliters of blood will be collected from a vein in your arm on each of these occasions. This is about 2.5 tablespoons of blood.

7. On day 0, a portion of your blood sample will be used to obtain a Complete Blood Count and Differential, and a Comprehensive Metabolic Panel.

8. You will receive intramuscular injections (either COVID-IG or NORMAL-IG). This will occur every 2 months. Intramuscular injections (approximately 5 mL) will be provided using a 22 gauge needle into your thigh or deltoid. You will be monitored for 30 minutes following each IG injection for any reaction to IG.

9. You will answer daily text messages for the first 14 days after each IG injection to monitor for any symptoms or side effects that may be associated with the IG injection.

You will be assigned by chance to one of two study groups. Your chance of being assigned to each group is 1 in 2. Neither you nor the researcher(s) can choose or know the group to which you will be assigned.

In the COVID-IG group, participants will receive IG derived from persons who recovered from COVID-19.

In the CONTROL-IG group, participants will receive IG derived from persons who have never been infected with SARS-CoV-2.

**How much time will each study procedure take, what is your total time commitment, and how long will the study last?**

1. A medical history will last no more than 15 minutes.
2. COVID-19 symptom screen will require 2 minutes.
3. A urine pregnancy test will take 5 minutes.
4. Measuring your temperature, heart rate, and blood pressure will take 5 minutes.
5. Swabs of your nose will take 2 minutes.
6. Blood draws will take 4 minutes.
7. IG injections will take 32 minutes due to the requirement to monitor for 30 minutes after the injection for any immediate side effects.
8. Text messaging will take 1 minute.

The study will last 12 months and if all study procedures are completed will result in a total time commitment of 8.75 hours over 12 months.

**What risks are associated with this study?**

Participation in this study may involve some added risks or discomforts. These include the following:

Possible local side effects of intramuscular IG injection include:
- Local pain and tenderness at the injection site
- Redness at the injection site
- Swelling at the injection site
- Bruising at the injection site
These usually resolve in 2-3 days
Possible systemic side effects of intramuscular IG injection include:

- Fatigue
- Fever
- Malaise
- Headache
- Muscle aches
- Nausea

Very rare or theoretical side effects of intramuscular IG injection include:

- Anaphylaxis
- Hypersensitivity reactions manifested by rash, flushing, facial swelling, lip swelling or shortness of breath
- Blood clotting
- Hemolysis
- Renal dysfunction/failure
- Acute lung injury
- Sterile abscess at the site of injection
- Transmission of infectious agents: IG is made from the blood of healthy donors, and the risk of transmission of pathogens is reduced by (1) epidemiological screening of donors; (2) testing of plasma for HIV, HAV, HBV, HCV, West Nile virus and human parvovirus B19 genomic material; and (3) the manufacturing procedures have demonstrated the capacity to inactivate/remove pathogens. [IG has a theoretical risk of transmitting the prions causing Creutzfeldt-Jacob disease (CJD), but no cases of transmission of CJD have ever been identified for IG manufactured by the processes used to manufacture COVID-IG or NORMAL-IG]

Risks associated with blood drawing include:

- Pain and bruising
- Local Infection
- Feeling lightheaded or fainting
- Anemia (low red blood count)

Risks associated with collection of nasopharyngeal swabs include:

- Mild discomfort, a tingling feeling or slight stinging

You will be assigned to a study group at random (by chance). Your assignment is based on chance rather than a medical decision made by the researchers, and neither you nor the researchers will not know to what group you are assigned. The study group you are assigned to might not be the group you would prefer to be in. Your assigned study group might also prove to be less effective or have more side effects than the other study group.
Because this is a research study, there may be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

**What are the alternatives to participating in this study?**
The alternatives to participation in this study are standard preventive measures (including hand washing, universal masking, and the use of personal protective equipment). Another alternative is to participate in other COVID-19 research trials that may exist.

**What benefits can be reasonably expected?**
If you take part in this study, there may be a direct benefit to you, but no guarantee can be made. There is a theoretical benefit that if you receive COVID-IG that you might be protected from COVID-19. In addition, the investigators may learn more about the efficacy and safety of intramuscular COVID-IG for the prevention of COVID-19 in healthcare workers.

**Can you choose to not participate or withdraw from the study without penalty or loss of benefits?**
Participation in research is entirely voluntary. You may refuse to participate or withdraw at any time without penalty or loss of benefits to which you are entitled. If you decide that you no longer wish to continue to participate in this study, you will be requested to contact the study coordinator to confirm you are withdrawing from the study.

You will be told of any important new information that may be found during the course of this study that may affect your desire to continue participating.

**Can you be withdrawn from the study without your consent?**
You may be withdrawn from the study without your consent for the following reasons:
1. You become pregnant
2. You are unable to receive the IG injections required by the study
3. The investigators conclude that it is in your best medical interest to withdraw from the study if they believe that continuing to receive IG injections may be harmful to you or if you need a treatment that may interfere with the study.

You may also be withdrawn from the study without your consent if you do not follow the instructions given you by the study personnel.

**Will you be compensated for participating in this study?**
You will not be compensated for participating in this study.

**Are there any costs associated with participating in this study?**
There will be no cost to you for participating in this study beyond your time investment.

The IG will be supplied at no cost while you take part in this study. The preparation and administration of the IG is also provided at no cost to you. It is possible that the IG may not continue to be supplied while you participating in the study. Although not likely, if this occurs, your study doctor will talk to you about your options.
**What if you are injured as a direct result of being in this study?**
If you are injured as a direct result of participation in this research, the University of California will provide any medical care you need to treat those injuries. The University will not provide any other form of compensation to you if you are injured. You may call the Human Research Protections Program Office at 858-246-HRPP (858-246-4777) for more information about this, to inquire about your rights as a research subject or to report research-related problems.

**What about your confidentiality?**
Research records will be kept confidential to the extent allowed by law. All assessments will be connected to a randomly generated participant identification number to protect your confidentiality. Research records may be reviewed by the UCSD Institutional Review Board and, possibly, a US Government Agency.

A description of this clinical trial will be available on http://www.ClinicalTrials.gov, as required by U.S. Law. This Web site will not include information that can identify you. At most, the Web site will include a summary of the results. You can search this Web site at any time.

**Who can you call if you have questions?**
Dr. Maile Young Karris, Dr. John Guatelli, or one of their colleagues has explained this study to you and answered your questions. If you have other questions or research-related problems, you may reach Dr. Maile Young Karris at 619-800-3341 or Dr. John Guatelli at 858-531-9236.

You may call the Human Research Protections Program Office at 858-246-HRPP (858-246-4777) to inquire about your rights as a research subject or to report research-related problems.
## STUDY SCHEDULE

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<th>Screen</th>
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1. Urine or serum pregnancy test for women of childbearing potential
2. To be assessed via text messaging
3. This will be performed via text messaging daily for the 14 days following each IG injection
4. Blood for antibody testing will be obtained at 0, 3, 7, 14 and 28 days after every IG injection [or for peak and trough antibody levels]
Your Signature and Consent
You have received a copy of this consent document and a copy of the “Experimental Subject's Bill of Rights” to keep.

You agree to participate.

Subject's signature       Date

Consenter’s signature       Date