

Guidance for safe practices in UC Anatomical Donation Programs in the context of COVID-19*

Background

This guidance is provided for UC Anatomical Donation Program (ADP) locations and is intended for staff operations and Anatomical Material Review Committee consideration during the COVID-19 pandemic. This guidance is subject to change as new information becomes available.

Key points

- COVID-19 (caused by a corona virus named SARS-CoV-2) is an acute respiratory illness currently known to be transmitted through droplets, fomites and close contact. COVID-19 spreads easily from person to person, most commonly spreads during close contact and can be spread by airborne transmission. It is less commonly spread through contact with contaminated surfaces.
- To date, the WHO reports no evidence of infection by persons who have come in contact with decedents who have died from COVID-19.
- Out of an abundance of caution, decedents who are confirmed to have an active case of COVID-19 at the time of death and persons under investigation (PUIs) are not eligible for donation to UC ADP locations.
- The UC ADP provides a vital public service to California constituents while supporting the education of students and clinician training in the healthcare workforce and for scientific research at UC and in the CSU and CCC systems, as well as for educational and industry partners throughout California and beyond.
- The safety of all persons who work in the UC ADPs is a priority. Although there may be differences in regional recommendations, all required safety measures including hand hygiene, social distancing, the use of masks or face coverings in common areas and the appropriate use of Personal Protective Equipment (PPE) for laboratory procedures or in clinical settings, as applicable, must be followed. Additive measures, such as staggered work schedules, are encouraged (unless otherwise mandated) for essential operations when working from home is not possible.
- Each location should manage donation volume locally and regionally, balancing the health and safety of program staff, student, faculty and researcher end users and the capacity of their facilities with the university's missions in public service, education and research; and, priorities for health care and emergency operations; against the risks of exposure to infection.
- This guidance is scheduled for review and update in Spring 2021 or as necessary.

Personal Protective Equipment

- Wear nonsterile, nitrile gloves when handling potentially infectious materials.
- If there is a risk of cuts, puncture wounds or other injuries that break the skin, wear heavy-duty gloves over the nitrile gloves.

- Wear a clean, long-sleeved fluid-resistant or impermeable gown to protect the clothing.
- Use a plastic face shield or a surgical mask and goggles to protect the face, eyes, nose and mouth from potentially infectious body fluids.
- If there is a risk of aerosol generation while handling human remains, use respiratory protection as part of a comprehensive respiratory protection program that meets the requirements of OSHA's Respiratory Protection standard (29 CFR 1910.134) and includes NIOSH-certified N95 or better respirators, medical exams, fit testing, and training. PAPRs with HEPA filters may provide increased worker comfort during extended procedures.

Donor Eligibility Criteria

Beginning on March 10, 2020, the UC ADPs implemented interim eligibility restrictions and additional screening criteria out of an abundance of caution. Criteria may be updated as new evidence becomes available. To date, publications on COVID-19 virus survivability for whole body donation purposes are limited, including the effects of freezing temperatures and specific preservative chemicals on COVID-19 infected human tissue.

- Decedents who are confirmed to have COVID-19 and persons under investigation (PUIs) are not eligible for donation to UC ADP locations at this time.
- Decedents who have tested positive for SARS-CoV-2 in the proceeding 28 days are not eligible for donation.
- If a decedent has or is being treated for a respiratory infection or disease, additional questions related to diagnosis dates or history of travel are appropriate.
 - Decedents with acute respiratory illnesses or fever require additional screening and may be considered not eligible for donation.
 - Decedents who have travelled to CDC level 3 countries with a travel notice issued for COVID-19 within the last 28 days are not eligible to donate.
 - Decedents subject to additional local restrictions on interstate travel and self-quarantine may also be ineligible.
 - Decedents with any COD and who die in a micro community setting with known transmission of COVID-19, such as those in a care home, may not be eligible for donation at this time. Further assessment is necessary.
- Death notification health information reported by non-medical personnel must be verified by a health care provider prior to dispatch.
- If concerning information is reported or questions remain, the local medical examiner should be consulted.
- Locally, eligibility criteria may be restricted further as necessary according to facility, staff and capacity limitations. Some criteria to consider when creating additional restrictions may include decedents with untreated MRSA or Sepsis, those who have been incarcerated within the last 28 days, anatomical constrictions, death notifications beyond 24 hours, out-of-state deaths or increased height and/or weight parameters.

COVID-19 Testing

- Diagnostic tests are available for post mortem testing of SARS-CoV-2; however, they are not yet validated for cadaveric use.
- Each location may collect swab samples for decedent testing with supplies provided by the testing laboratory and collected according to the testing package insert. Samples must be tested within 48 hours of collection.
- Shipping protocols supplied by the testing laboratory must be followed.
- Personnel performing sample collections must do so under strict PPE requirements.
- Reporting of test results to the local health officer or others must be done according to applicable laws, rules and regulations and in consultation with the campus or health system compliance officer.
- End-users may have questions or concerns that we may not have sufficient evidence to address at this time. Revisions will be made to procedures as new information becomes available.

Preparation & Storage

UC ADP locations should limit preparations to those that will minimize staff contact and in-person interactions, avoid unnecessary manipulation of the body, adhere to inventory and tracking standards, promote health and safety standards and facilitate future requests.

- All persons handling human remains must wear the minimum required PPE.
- Disinfect body bag/coverings with a CDC approved disinfectant (such as Dodge Dis-spray).
- If collecting a swab sample for SARS-CoV-2 testing, collect the sample prior to disinfection of the body and according to the testing laboratory requirements. All personnel must follow specimen handling, shipping and PPE requirements and best practices.
- Spray decedent, including the mouth, nasal passages and eyes with an EPA- approved disinfectant.
- Cover decedents face with a paper towel, mask or equivalent that has been sprayed with an EPA- approved disinfectant.
- Obtain a serology sample.
- Generate and affix tag accordingly.
- Keep decedent face covered during preparation and wrapping. Embalm or freeze whole body decedent and avoid specimen recovery procedures whenever possible.
- Follow dilution recommendations for formalin and other preservation chemicals (isopropanol, phenol), such as those found here:
https://shop.dodgeco.com/content/files/PDFs/COVID-19_Statement_4.pdf

Cleaning and Disinfection

- Ensure adequate ventilation in preparation and storage locations. Contact local EH&S for assistance.
- Cleaning and disinfection procedures must be performed immediately following decedent preparation.
- Environmental surfaces and instrumentations should first be cleaned with soap and water or a commercially prepared detergent.
- After cleaning, use an EPA approved disinfectant or a solution with a minimum of 0.1% (1000 ppm) bleach or 70% ethanol.
- Restrict access to ancillary and vendor personnel during this time. Disinfect all touch points (door handles, switch plates, key pads, sign-in stations, etc.) immediately each morning and following contact.

Ongoing considerations

- Capacity
 - Local programs have varying facility and capacity limitations, with some approaching full capacity. Donation eligibility criteria should be restricted further as appropriate for each facility. There may be options to store decedents on-site in temporary, rented facilities if deemed necessary. Donation acceptance may also be halted where appropriate.
- Notifications
 - UC ADPs have posted notices to websites and added inserts to mailings to notify donors and interested parties about additional restrictions due to the pandemic. Additional procedures for notification may be implemented.
- Donations accepted between at least December 1, 2019 and March 10, 2020
 - Consideration must be made for donations accepted between the virus being detected in California and when UC ADPs instituted interim eligibility criteria restrictions.
 - Additional file review prior to allocation is prudent.
 - In some cases, direct disposition may be necessary.
 - Additional PPE requirements or disclosures for end-users may be considered.

Resources

1. CDC FAQ's about Coronavirus (COVID-19) for Laboratories:
<https://www.cdc.gov/coronavirus/2019-ncov/lab/faqs.html>
2. CDC Guidance for collection and submission of post-mortem specimens from deceased persons under investigation (PUI) for COVID-19:

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html>

3. CDC Guidance Regarding COVID-19 and Funerals:
<https://www.cdc.gov/coronavirus/2019-ncov/faq.html#funerals>
 4. CDC Guidance How COVID-19 Spreads:
<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html>
 5. CDC COVID-19 Travel Notice <https://www.cdc.gov/coronavirus/2019-ncov/travelers/map-and-travel-notice.html>
 6. CDPH Guidance on infection prevention for funeral establishments handling deceased cases of COVID-19: <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/funerals.aspx>
 7. CDPH Skilled Nursing Facilities: COVID-19:
https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/SNFsCOVID_19.aspx
 8. Dodge Co. statement: https://shop.dodgeco.com/content/files/PDFs/COVID-19_Statement_4.pdf
 9. EPA current list of disinfectants that meet EPA's criteria for use against SAR-CoV-2, the cause of COVID-19: <https://www.epa.gov/pesticide-registration/list-n-disinfectants-coronavirus-covid-19>
 10. US Dept. of Labor OSHA COVID-19 Control and Prevention Death Care:
<https://www.osha.gov/SLTC/covid-19/controlprevention.html#deathcare>
 11. Viruses, Propagation, Inactivation and Safety Testing of SARS-CoV-2:
<https://pubmed.ncbi.nlm.nih.gov/32517266/>
 12. WHO's Infection and Prevention Control for the safe management of a dead body in the context of COVID-19: https://apps.who.int/iris/bitstream/handle/10665/331538/WHO-COVID-19-IPC_DBMgmt-2020.1-eng.pdf
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