

MADISON MEMORIAL HOSPITAL	Version #: Version
Title: Pre-Operative Covid Testing and Screening	

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Department(s): Madison Memorial Hospital	Next Review Date:

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Purpose/Summary:

To implement pre-operative COVID-19 screening and testing procedures to prevent the spread of infection.

This policy goes over the necessary steps to take when preparing a patient for a surgical procedure. It includes different screening and testing options required in order to move forward with the operation in a safe manner.

Definitions:

- COVID-19: Severe acute respiratory syndrome caused by coronavirus. (Areeruk et al., 2021).
- COVID-19 symptoms: Fever of 100.4F or chills, shortness of breath, cough, fatigue, muscle or body aches, headache, new loss of taste or smell, sore throat, congestion, runny nose, nausea, vomiting, or diarrhea. (Centers for Disease Control and Prevention, 2021).
- PCR Test: Reverse transcriptase polymerase chain reaction, which will provide the COVID-19 test result. (Bowyer et al., 2021).
- LV and RV: Left ventricle and right ventricle to test for cardiac involvement. (Cicco et al., 2021).
- Ultrasound, Echocardiography, Computed Tomography, Cardiac Magnetic Resonance, Nuclear Imaging: Diagnostic procedures used to identify COVID-19 or related issues prior to surgery. (Cicco et al., 2021).
- HIPAA: Health Insurance Portability and Accountability Act

Goals and Objectives:

1. Screen all patients 72 hours prior to operation to ensure negative COVID-19 test results.
2. There will be a decreased infection rate of COVID-19 throughout the hospital.
3. Tracking the results of various diagnostic testing will aid in determining the severity of the COVID-19 infection.

The goals and objectives of this process interrelate to the hospitals goals and objectives as follows:

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Quality: Provide evidence-based practice to ensure improved healthcare for the patients at Madison Memorial.

Providing the Exceptional Experience: Utilizing core values to provide compassionate service for all patients at Madison Memorial.

Ensuring Our Future: Conduct teamwork within the community and medical staff to provide excellent healthcare for the patients at Madison Memorial.

Equipment and Suitable Environment Needed:

- Questionnaire with symptom-based questions (Areeruk et al., 2021).
- Rapid and PCR tests (Bowyer et al., 2021).
- Isolated or quarantined environment prior to operation (Ferrari et al., 2021).
- Ultrasound (Cicco et al., 2021).
- Echocardiography (Cicco et al., 2021).
- CT (Cicco et al., 2021).
- Cardiac Magnetic Resonance (CMR) (Cicco et al., 2021).
- Nuclear Imaging (Cicco et al., 2021).

Procedure:

Overview	Details
Step 1	-All patients in need of surgical procedures will fill out a Covid-19 questionnaire through telemed prior to surgery. (Areeruk et al., 2021).
Step 2	-Rapid and PCR testing will be performed for all pre-op patients within 72 hours before surgery. Healthcare providers will wear personal protective equipment while performing the test (Bowyer et al., 2021).
Step 3	-As patients wait for the results from the rapid testing, the patient will be asked to maintain isolation in order to avoid external contacts that could spread the virus (Ferrari et al., 2021). Isolation precautions for patients include: -Avoiding out-of-state travel, crowds, sick individuals -Wear a mask while indoors or outdoors when unable to maintain a social distance of at least six feet. -Perform proper hand washing or sanitation techniques of at least 20 seconds. (Centers for Disease Control and Prevention, 2021)

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Step 4	<p>-If the RT-PCR results are positive, the surgery will be postponed and the patient will return home to quarantine (Areeruk et al., 2021).</p> <p>Quarantine precautions include:</p> <ul style="list-style-type: none"> -Stay home for a period of 14 days -Observe for COVID-19 symptoms -If possible quarantine in a separate room from everyone else in the house, use a separate bathroom, and separate dishes for food. <p>-If patients test negative they will proceed with surgery as planned. For those who need emergent surgery or are symptomatic with a negative RT-PCR result, the interdisciplinary health team will decide whether or not benefits outweigh the risks for surgery. When benefits outweigh the risks, surgery will proceed with airborne precautions in place (Anesthesia Patient Safety Foundation, 2021).</p> <p>To help determine if benefits outweigh the risks for surgery one of the diagnostic tests can be performed if desired by the interdisciplinary team to help determine the severity of the COVID-19 disease progression.</p> <ul style="list-style-type: none"> ➤ Finding 1: Basic LV and RV structural and functional abnormalities, pericardial effusion, pleural effusion Diagnostic test performed: ultrasound (Cicco et al., 2021) ➤ Finding 2: RV dilation and dysfunction, LV systolic and diastolic dysfunction, wall motion abnormalities, stress cardiomyopathy, pulmonary hypertension, reduced LV and RV strain, pericardial effusion, elevated filling pressures Diagnostic test performed: echocardiography (Cicco et al., 2021) ➤ Finding 3: Pulmonary embolism, cardiomegaly, chamber size, intracardiac thrombus, pericardial effusion Diagnostic test performed: computed tomography (CT) (Cicco et al., 2021) ➤ Finding 4: Ischemic vs. non-ischemic injury, stress cardiomyopathy, myocarditis, pericarditis, chamber enlargement, strain abnormalities Diagnostic test performed: cardiac magnetic resonance (CMR) (Cicco et al., 2021) ➤ Finding 5: Valvular inflammation in endocarditis, myocardial inflammation in myocarditis, Diagnostic test performed: nuclear imaging (Cicco et al., 2021)
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Step 5 Monitoring and Measuring	-The healthcare provider who completes the testing, screening, or optional diagnostic tests will document immediately afterwards. -Patients and healthcare providers will work together to reschedule surgery if needed.
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Internal References:

- Preoperative surgical assessments
- Infection control policies

External References:

Anesthesia Patient Safety Foundation. (2020, November 12). *Preoperative Covid testing:*

Examples from around the U.S.

<https://www.apsf.org/novel-coronavirus-covid-19-resource-center/preoperative-covid-testing-examples-from-around-the-u-s/>.

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Infectious Diseases in Obstetrics & Gynecology, 1–5.

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Association of Perioperative Registered Nurses. (2020, August 13). *Joint statement: Roadmap*

for maintaining essential surgery during COVID-19 pandemic.

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<https://doi.org/10.1016/j.gie.2020.10.001>.

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Centers for Disease Control and Prevention. (2021, July 8). Guidance for SARS-CoV-2 point-of-care and rapid testing.

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https://www.cdc.gov/coronavirus/2019-ncov/lab/point-of-care-testing.html#anchor_1615507023304

Cicco, S., Vacca, A., Cariddi, C., Carella, R., Altamura, G., Solimando, G. A., Lauletta, G.,

Pappagallo, F., Cirulli, A., Stragapede, A., Susca, N., Grasso, S., & Ria, R. (2021).

Imaging evaluation of pulmonary and non-ischemic cardiovascular manifestations of COVID-19. *Diagnostics*, 11(7), 1271. <http://dx.doi.org/10.3390/diagnostics11071271>.

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Ferrari, M., Paderno, A., Giannini, L., Cazzador, D., Ciardiello, C., Carretta, G., Piazza, C., & Nicolai, P. (2021). COVID-19 screening protocols for preoperative assessment of head and neck cancer patients candidate for elective surgery in the midst of the pandemic: A narrative review with comparison between two Italian institutions. *Oral Oncology, 112*.
<https://doi.org/10.1016/j.oraloncology.2020.105043>.

Requirements:

“The facility should have adequate numbers of trained staff and supplies, including personal protective equipment (PPE), beds, ICU and ventilators to treat non-elective patients without resorting to a crisi-level standard of care.” (Association of Perioperative Registered Nurses, 2020)

“Facilities should not provide non-emergent essential surgical services unless they have adequate PPE and medical surgical appropriate to the number and type of procedures to be performed.” (Association of Perioperative Registered Nurses, 2020)

Quality Assurance and Sustainability:

In order to maintain consistency amongst departments regarding preoperative COVID-19 policies and procedures, staff from all departments involved with surgical patients should be required to attend monthly staff meetings to receive necessary training about current and updated policies. This will ensure a unified approach and include clear and consistent communication regarding expectations amongst all staff involved. Regular staff meetings will ensure understanding of the current policy.

Re-evaluation of COVID-19 preoperative policies and procedures should occur every month or as advised by medical governing bodies. As COVID-19 is an ever-changing situation, up-to-date information should be used in order to prevent the spread of the virus. A committee consisting of nurses, physicians, and administrators should be created to supervise the implementation of this policy. This committee would be required to ensure the implementation of

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the policy as well as additional research and updates to this policy. Any changes to policies should be addressed in a staff meeting to ensure understanding of any changes made.

Clear communication with patients is essential for policies to be carried out effectively and safely. Patients should be informed of every step of screening and testing that will be completed preoperatively to ensure an effective process. This can be achieved by providing verbal instructions as well as written instructions for each preoperative patient.

Disclaimer:

This policy is a resource to decrease the spread of COVID-19 and risks for surgical patients at Madison Memorial Hospital but does not guarantee safety. Specific clinical situations may require adaptation.