# APPENDIX 8: SUMMARY OF THE INFECTIOUS DISEASES SOCIETY OF AMERICA (IDSA) TESTING RECOMMENDATIONS

| Recommendation | Summary of IDSA Suggestions | Level of Evidence | Selected Considerations |
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| **1: Nucleic acid amplification test (NAAT) in symptomatic individuals** | TESTING FOR ALL PATIENTS WITH ANY COVID-19 SYMPTOMS.<br><br>*Test for SARS-CoV-2 via NAAT in symptomatic individuals in the community suspected of having COVID-19, even when the clinical suspicion for COVID-19 is low.* | Strong recommendation, very low certainty of evidence. | • The panel considered symptomatic patients to have at least one of the most common symptoms compatible with COVID-19 (IDSA Table 1).<br>• Clinical assessment alone is not accurate in predicting COVID-19 diagnosis.<br>• The panel considered timeliness of SARS-CoV-2 NAAT results essential to impact individual care, healthcare institution, and public health decisions. In the outpatient setting, results within 48 hours of collection is preferable. |
| **2: Nasopharyngeal (NP), mid-turbinate (MT), anterior nasal (AN), and oropharyngeal (OP) swabs** | DO NOT USE OP SPECIMENS ALONE FOR COVID-19 TESTING.<br><br>*Collect an NP swab, MT swab, AN swab, saliva or a combined AN/OP swab rather than an OP swab alone for SARS-CoV-2 RNA testing in symptomatic individuals suspected of having COVID-19.* | Conditional recommendation, very low certainty of evidence. | • The panel considered symptomatic patients to have at least one of the most common symptoms compatible with COVID-19 (IDSA Table 1). |
| **3: Swab collection by patients or healthcare providers (symptomatic)** | SELF-COLLECTION OF NASAL OR MT SWABS IS ACCEPTABLE IN THE SYMPTOMATIC.<br><br>*AN and MT swab specimens may be collected for SARS-CoV-2 RNA testing by either patients or healthcare providers, in symptomatic individuals with upper respiratory tract infection (URTI) or influenza-like illness suspected of having COVID-19.* | Conditional recommendation, low certainty of evidence. | • The majority of self-collection studies were performed in the presence of a healthcare worker.<br>• The available evidence for nasal and MT swabs as alternatives to healthcare personnel collection is based on assessment of symptomatic patients.<br>• Data on self-collection in asymptomatic individuals is currently unavailable.<br>• The panel considered symptomatic patients to have at least one of the most common symptoms compatible with COVID-19 (IDSA Table 1). |

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| **4: Upper vs. lower respiratory tract samples** | IN HOSPITALIZED PATIENTS WITH SUSPECTED COVID-19 PNEUMONIA, ATTEMPT AN UPPER RESPIRATORY SPECIMEN COLLECTION BEFORE LOWER. COLLECT LOWER RESPIRATORY SPECIMEN ONLY IF UPPER IS NEGATIVE.<br><br>*Obtain an upper respiratory tract sample (e.g., NP swab) rather than a lower respiratory sample for SARS-CoV-2 RNA testing in hospitalized patients with suspected COVID-19 lower respiratory tract infection. If the initial upper respiratory sample result is negative, and the suspicion for disease remains high, the IDSA panel suggests collecting a lower respiratory tract sample (e.g., sputum, bronchoalveolar lavage fluid, tracheal aspirate) rather than collecting another upper respiratory sample.* | Conditional recommendations, very low certainty of evidence. | • The panel considered timeliness of SARS-CoV-2 NAAT results essential to impact individual care and isolation decisions. In the hospital setting, results within 24 hours of collection is preferable. |
| **5: Single vs. repeating RNA test (symptomatic)** | IF LOW CLINICAL SUSPICION FOR COVID-19 IN A SYMPTOMATIC PATIENT AND INITIAL NAAT IS NEGATIVE, A REPEAT TEST IS NOT NEEDED.<br><br>*Perform a single viral RNA test and not repeating testing in symptomatic individuals with a low clinical suspicion of COVID-19.* | Conditional recommendation, low certainty of evidence. | • A low clinical suspicion should be informed by epidemiological information available for the region coupled with clinical judgment.<br>• The panel considered symptomatic patients to have at least one of the most common symptoms compatible with COVID-19 (IDSA Table 1). |

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| **6: Single vs. repeating RNA test (symptomatic)** | IF HIGH CLINICAL SUSPICION FOR COVID-19 IN A SYMPTOMATIC PATIENT AND INITIAL NAAT IS NEGATIVE, DO REPEAT NAAT.<br><br>*Repeat viral RNA testing when the initial test is negative (versus performing a single test) in symptomatic individuals with an intermediate or high clinical suspicion of COVID-19.* | Conditional recommendation, low certainty of evidence. | • Intermediate/high clinical suspicion typically applies to the hospital setting and is based on the severity, numbers and timing of compatible clinical signs/symptoms.<br>• Repeat testing should generally occur 24-48 hours after initial testing and once the initial NAAT result has returned as negative.<br>• Another specimen type, preferably a lower respiratory tract specimen if the patient has signs/symptoms of lower respiratory tract infection, should be considered for repeat testing<br>• The panel considered symptomatic patients to have at least one of the most common symptoms compatible with COVID-19 (IDSA Table 1) |
| **7: Rapid vs. standard laboratory-based NAAT (symptomatic)** | UNLESS RT-PCR IS NOT AVAILABLE, USE NAAT INSTEAD OF THE IDNOW® IN SYMPTOMATIC PATIENTS SUSPECTED OF HAVING COVID. USE IDNOW® IF NAAT IS NOT AVAILABLE.<br><br>*Use either rapid RT-PCR or standard laboratory-based NAATs over rapid isothermal NAAT in symptomatic individuals suspected of having COVID-19.* | Conditional recommendation, low certainty of evidence. | • Standard laboratory-based NAAT methods evaluated included RT-PCR and transcription-mediated amplification (TMA).<br>• Studies of rapid isothermal NAAT primarily used the Abbott ID NOW test<br>• Rapid isothermal NAAT is an acceptable testing option when rapid RT-PCR or standard laboratory-based NAAT is not readily available<br>• A negative rapid isothermal test result from an individual with a high clinical suspicion for SARS-CoV-2 infection, or anyone in a moderate (10%) or high prevalence (40%) population, should be confirmed by standard NAAT or a rapid RT-PCR test when testing is available and the results will affect patient management. |

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| **8: RNA testing in exposed individuals (asymptomatic)** | USE NAAT IN SUSPECTED EXPOSED OR CONFIRMED EXPOSED ASYMPTOMATIC PATIENTS.<br><br>*Test SARS-CoV-2 RNA in asymptomatic individuals who are either known or suspected to have been exposed to COVID-19.* | Conditional recommendation, very low certainty of evidence. | • Known exposure was defined as direct contact with a laboratory-confirmed case of COVID-19.<br>• Suspected exposure was defined as working or residing in a congregate setting (e.g., long-term care, correctional facility, cruise ship, factory, among others) experiencing an outbreak.<br>• The risk of contracting SARS-CoV-2 may vary under different exposure conditions.<br>• This recommendation assumes the exposed individual was not wearing appropriate personal protective equipment (PPE).<br>• The decision to test asymptomatic patients will be dependent on the availability of testing resources. |
| **9: RNA testing in unexposed, hospitalized individuals (asymptomatic)** | DO NOT USE NAAT FOR ASYMPTOMATIC, UNEXPOSED PATIENTS BEING HOSPITALIZED IN LOW-RISK SETTINGS.<br>*Do not use SARS-CoV-2 RNA testing in asymptomatic individuals with no known contact with COVID-19 who are being hospitalized in areas with a low prevalence of COVID-19 in the community.* | Conditional recommendation, very low certainty of evidence. | • Asymptomatic individuals are defined as those with no symptoms or signs of COVID-19.<br>• A low prevalence of COVID-19 in the community was considered communities with a prevalence of <2%.<br>• This recommendation does not apply to immunocompromised individuals.<br>• This recommendation does not apply to individuals undergoing time-sensitive major surgery or aerosol-generating procedures (AGPs). |
| **10: RNA testing in unexposed, hospitalized individuals (asymptomatic)** | USE NAAT FOR ASYMPTOMATIC, UNEXPOSED PATIENTS BEING HOSPITALIZED IN HIGH-RISK SETTINGS.<br>*Directly test SARS-CoV-2 RNA in asymptomatic individuals with no known contact with COVID-19 who are being hospitalized in areas with a high prevalence of COVID-19 in the community (i.e., hotspots).* | Conditional recommendation, very low certainty of evidence. | • Asymptomatic individuals are defined as those with no symptoms or signs of COVID-19.<br>• A high prevalence of COVID-19 in the community was considered communities with a prevalence of 10%.<br>• The decision to test asymptomatic patients (including when the prevalence is between 2 and 9%) will be dependent on the availability of testing resources. |

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| **11: RNA testing in immunocompromised individuals (asymptomatic)** | USE NAAT FOR ASYMPTOMATIC IMMUNOCOMPROMISED PATIENTS BEING ADMITTED TO THE HOSPITAL, REGARDLESS OF EXPOSURE.<br><br>*Test for SARS-CoV-2 in immunocompromised asymptomatic individuals who are being admitted to the hospital regardless of exposure to COVID-19.* | Strong recommendation, very low certainty of evidence. | • This recommendation defines immunosuppressive procedures as cytotoxic chemotherapy, solid organ or stem cell transplantation, biologic therapy, cellular immunotherapy, or high-dose corticosteroids. |
| **12: RNA testing in immunocompromised individuals (asymptomatic)** | USE NAAT FOR ASYMPTOMATIC PATIENTS BEFORE STEM CELL OR SOLID ORGAN TRANSPLANT, REGARDLESS OF EXPOSURE.<br><br>*Test SARS-CoV-2 RNA (versus no testing) in asymptomatic individuals before hematopoietic stem cell (HSCT) or solid organ transplantation (SOT) regardless of a known exposure to COVID-19.* | Strong recommendation, very low certainty of evidence. | • Testing should ideally be performed as close to the planned treatment/procedure as possible (e.g., within 48-72 hours). |
| **13: RNA testing before immunosuppressive therapy for cancer (asymptomatic)** | NO RECOMMENDATIONS.<br><br>*No recommendations for or against SARS-CoV-2 RNA testing before initiating immunosuppressive therapy in asymptomatic individuals with cancer.* | Evidence gap. | • The decision to pursue testing should be individualized. Factors to consider include the type of cancer, the need for induction versus maintenance immunosuppressive therapy, the type of immunosuppressive therapy, patient comorbidities and the availability of testing.<br>• This recommendation does not apply to hematopoietic stem cell transplant candidates or recipients. |

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| **14: RNA testing before immunosuppressive therapy for autoimmune disease (asymptomatic)** | NO RECOMMENDATIONS.<br><br>*No recommendations for or against SARS-CoV-2 RNA testing before the initiation of immunosuppressive therapy in asymptomatic individuals with autoimmune disease.* | Evidence gap. | • The decision to pursue testing should be individualized. Factors that may affect the decision to test include the type and severity of autoimmune disease, the type of immunosuppressive therapy, the need for induction versus maintenance immunosuppressive therapy, patient comorbidities and the feasibility of testing. |
| **15: RNA testing for surgeries and surgery-related AGPs (unexposed, asymptomatic)** | USE NAAT FOR ASYMPTOMATIC, UNEXPOSED PATIENTS, AND MAJOR TIME-SENSITIVE SURGERY.<br><br>*Test SARS-CoV-2 RNA in asymptomatic individuals (without known exposure to COVID-19) who are undergoing major time-sensitive surgeries.* | Conditional recommendation, very low certainty of evidence. | • The panel defined time-sensitive surgery as medically necessary surgeries that need to be done within three months.<br>• Testing should ideally be performed as close to the planned surgery as possible (e.g., within 48-72 hours).<br>• To limit potential poor outcomes, deferring non-emergent surgeries should be considered for patients testing positive for SARS-CoV-2.<br>• Decisions about PPE use for the aerosol-generating portions of these procedures may be dependent on test results when there is limited availability of PPE. However, there is a risk for false negative test results, so caution should be exercised by those who will be in close contact with/exposed to the upper respiratory tract (e.g., anesthesia personnel, ear/nose/throat [ENT] procedures).<br>• The decision to test asymptomatic patients will be dependent on the availability of testing resources.<br>• This recommendation does not address the need for repeat testing if patients are required to undergo multiple surgeries over time. |

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| **16: RNA testing for surgeries and aerosol-AGPs (unexposed, asymptomatic)** | NO NAAT TESTING IN ASYMPTOMATIC, UNEXPOSED INDIVIDUALS UNDERGOING A TIME-SENSITIVE AGP WHEN PPE IS AVAILABLE.<br><br>*No SARS-CoV-2 RNA testing in asymptomatic individuals without a known exposure to COVID-19 who are undergoing a time-sensitive AGP (e.g., bronchoscopy) when PPE is available.* | Conditional recommendation, very low certainty of evidence. | • The panel defined time-sensitive procedures as medically necessary procedures that need to be done within three months.<br>• Procedures considered to be aerosol-generating are listed in IDSA Table 11. |
| **17: RNA testing for surgeries and AGPs (unexposed, asymptomatic)** | USE NAAT TESTING IN ASYMPTOMATIC, UNEXPOSED INDIVIDUALS UNDERGOING A TIME-SENSITIVE AGP WHEN PPE IS LIMITED, AND TESTING IS AVAILABLE.<br><br>*Test SARS-CoV-2 RNA in asymptomatic individuals without a known exposure to COVID-19 who are undergoing a time-sensitive AGP (e.g., bronchoscopy) when PPE is limited, and testing is available.* | Conditional recommendation, very low certainty of evidence. | • The panel defined time-sensitive procedures as medically necessary procedures that need to be done within three months.<br>• Testing should be performed as close to the planned procedure as possible (e.g., within 48-72 hours).<br>• Decisions about PPE will be dependent on test results because of limited availability of PPE. However, there is a risk for false negative test results, so caution should be exercised for those who will be in close contact with/exposed to the patient's airways.<br>• Procedures considered to be aerosol-generating are listed in IDSA Table 11.<br>• The decision to test asymptomatic patients will be dependent on the availability of testing resources.<br>• This recommendation does not address the need for repeat testing if patients are required to undergo multiple procedures over time. |

*Adapted from the 12/23/20 IDSA Guidelines on the Diagnosis of COVID-19: Molecular Diagnostic Testing*