

COVID Survey

Please complete the survey below.

Thank you!

The purpose of this study is to obtain information about the views of healthcare providers in sleep medicine during the COVID-19 pandemic. This survey is voluntary, and should take between 5-15 minutes to complete depending on your profession. There are 10 sections.

You may stop the survey and return using a code at any time. Answers will be completely anonymous. We will not collect, distribute or publish identifying information. This data will be used only for research purposes. By completing this survey you agree to participate in this research study.

This study was approved for exempt status by UMMS-Baystate IRB.

As an incentive to complete the survey, you will be able to view the aggregate results.

Section 1- Demographics

What is your profession?

- Physician
- Advanced Practitioner
- Sleep Technologist or Respiratory Therapist
- Dentist
- Other

Other, please specify

Please pick all that apply

- RPSGT
- RRT
- Unregistered PSG Technician

Are you a medical director of a sleep laboratory?

- Yes
- No

Are you a laboratory manager or lead technician?

- Yes
- No

What is your primary specialty? (Choose all that apply)

- Sleep Medicine
- Pulmonology
- Critical Care
- Neurology
- Psychiatry
- Family Medicine
- Internal Medicine
- Anesthesia
- ENT
- Med/Peds
- Pediatrics
- Psychology
- Other

How many years have you worked in sleep medicine?

- Currently in training
- 0-5
- 6-10
- 11-20
- >21

Do you consider yourself a thought leader in the field of clinical sleep medicine?

- Yes
- No

In which country is your primary practice located?

- United States
- Afghanistan
- Albania
- Algeria
- Andorra
- Angola
- Antigua and Barbuda
- Argentina
- Armenia
- Australia
- Austria
- Azerbaijan
- The Bahamas
- Bahrain
- Bangladesh
- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bhutan
- Bolivia
- Bosnia and Herzegovina
- Botswana
- Brazil
- Brunei
- Bulgaria
- Burkina Faso
- Burundi
- Cabo Verde
- Cambodia
- Cameroon
- Canada
- Central African Republic
- Chad
- Chile
- China
- Colombia
- Comoros
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Cyprus
- Czech Republic
- Democratic Republic of the Congo
- Denmark
- Djibouti
- Dominica
- Dominican Republic
- East Timor (Timor-Leste)
- Ecuador
- Egypt
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Eswatini
- Ethiopia
- Fiji
- Finland
- France
- Gabon
- The Gambia
- Georgia
- Germany
- Ghana
- Greece
- Grenada

- Guatemala
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Honduras
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Israel
- Italy
- Jamaica
- Japan
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- Kuwait
- Kyrgyzstan
- Laos
- Latvia
- Lebanon
- Lesotho
- Liberia
- Libya
- Liechtenstein
- Lithuania
- Luxembourg
- Madagascar
- Malawi
- Malaysia
- Maldives
- Mali
- Malta
- Marshall Islands
- Mauritania
- Mauritius
- Mexico
- Micronesia
- Moldova
- Monaco
- Mongolia
- Montenegro
- Morocco
- Mozambique
- Myanmar (Burma)
- Namibia
- Nauru
- Nepal
- Netherlands
- New Zealand
- Nicaragua
- Niger
- Nigeria
- North Korea
- North Macedonia
- Norway
- Oman
- Pakistan
- Palau
- Panama
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Poland

- Portugal
- Qatar
- Republic of the Congo
- Romania
- Russia
- Rwanda
- Saint Kitts and Nevis
- Saint Lucia
- Saint Vincent and the Grenadines
- Samoa
- San Marino
- Sao Tome and Principe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Singapore
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Korea
- Spain
- Sri Lanka
- Sudan
- South
- Suriname
- Sweden
- Switzerland
- Syria
- Taiwan
- Tajikistan
- Tanzania
- Thailand
- Togo
- Tonga
- Trinidad and Tobago
- Tunisia
- Turkey
- Turkmenistan
- Tuvalu
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom
- Uruguay
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela
- Vietnam
- Yemen
- Zambia
- Zimbabwe

In which state or territory is your primary practice located?

- AL
- AK
- AZ
- AR
- CA
- CO
- CT
- DE
- FL
- GA
- HI
- ID
- IL
- IN
- IA
- KS
- KY
- LA
- ME
- MD
- MA
- MI
- MN
- MS
- MO
- MT
- NE
- NV
- NH
- NJ
- NM
- NY
- NC
- ND
- OH
- OK
- OR
- PA
- RI
- SC
- SD
- TN
- TX
- UT
- VT
- VA
- WA
- WV
- WI
- WY
- DC
- MH
- American Samoa
- Guam
- Indian Reservation
- Northern Mariana Islands
- Puerto Rico
- US Virgin Islands
- US military base outside of US

Where is your primary sleep practice setting located?

- Academic hospital based
- Non-academic hospital based or health maintenance organization
- VA
- Military Hospital
- Private practice
- None
- Other

Other, please specify

Where is your primary outpatient sleep lab located?

- Hospital
- Other Medical Building/Clinic
- Stand alone Sleep Laboratory
- Hotel
- Research laboratory
- HSAT only
- Other
- NA

Other, please specify

How do you describe your primarily sleep lab setting?

- Urban
- Suburban
- Rural

What population do you serve?

- Pediatrics
- Adults
- Both

Is your primary laboratory accredited by the AASM or your country's sleep society or accreditation board?

- Yes
- No

How many beds does your lab or labs have?

- 1
- 2
- 3-5
- 6-9
- >10

Does your lab/center perform home sleep testing?

- Yes
- No

Section-2 Current Practices: In-lab testing

The AASM recommended the following mitigation strategies until at least April 30th, 2020

•Postpone and reschedule in-lab administration of positive airway pressure (PAP) therapy (i.e., PAP titration studies and split-night studies) except in emergencies, in which case, review the potential for aerosolization and ensure technologists use appropriate PPE. Avoid PAP use in the clinic setting due to the risk of aerosolization.

•Postpone and reschedule polysomnography (PSG) for children and adults except in emergencies.

<https://aasm.org/covid-19-resources/covid-19-mitigation-strategies-sleep-clinics-labs>

At any time, have you stopped or reduced any testing in your primary lab by > 90% due to COVID-19

- Yes
 No

Which services have you stopped or reduced by > 90% due to COVID-19? Choose all that apply

- In-lab diagnostic studies
 In-lab titration studies
 Pediatric studies
 Home sleep studies
 Mask fittings
 Oximetry
 Other

Other, please specify

What screening procedures have you implemented for in-lab studies or do you plan on implementing prior to reopening? Choose all that apply

- Ask about symptoms
 Measure temperature before proceeding with testing
 Ask whether COVID testing was done
 Review lab results for prior COVID testing
 Perform COVID testing
 Other
 Unknown

Other, please specify

If you stopped or significantly restricted in-lab sleep testing in your primary lab, what date was testing limited?

Which patients do you think you will offer in-lab testing in the next months? (Choose all that apply)

- Urgent patients for diagnostic testing
 Urgent patients for titration
 Adult patients for diagnostic testing
 Adult patients for titration
 Pediatric patients for diagnostic testing
 Pediatric patients for titration
 Above patients without high risk comorbidities if they were to get COVID-19
 Any patient willing to have a sleep study
 Above selections if Recovered COVID positive status
 Above selections if Known COVID negative status
 Other

Other, please specify

What percentage of your patients do you think will want to come for in-lab studies in the next month if you are open?

- 0-25%
- 26-50%
- 51-75%
- 76-100%

Section 3: Home sleep testing

AASM recommended the following mitigation strategies to be used until at least April 30, 2020

- **Consider using single-use, fully disposable devices and/or components.**
- **Use an HSAT delivery service.**
- **If using reusable devices, the units must be cleaned and sanitized according to CDC disinfection standards. As an extra precaution during this public health emergency, it would be best to remove a reusable device from service for at least 72 hours in addition to disinfection before its next use.**
- **Ensure that patients do not have to leave their home to receive or return the device.**
- **Provide patients with access to instructional brochures, video or telemedicine consultations to ensure proper set-up, as well as safe handling of the package upon arrival.**
- **Individuals responsible for cleaning reusable HSAT devices must wear appropriate PPE.**

<https://aasm.org/covid-19-resources/covid-19-mitigation-strategies-sleep-clinics-labs>

If your center does HSATs, what strategies have you implemented to set up patients? Choose all that apply

- Mailing reusable home studies
- Mailing disposable home studies
- Face to face setups with negative COVID-19 viral testing
- Face to face setups with screening for symptoms and fever
- Face to face setups with contact PPE
- Limiting to emergency studies
- No changes
- Other
- NA

Other, please specify

What strategies have you implemented for home sleep testing? Choose all that apply

- COVID-19 Virus testing
- Disposable device
- Disposable effort bands
- Machine washing reusable effort bands
- Sterilizing reusable effort bands
- Wipe devices with disinfectant
- Wait at least 72 hours before handling
- Wear gloves when handling devices
- Wear contact PPE when handling devices
- Other

Other, please specify

How important do you feel the following strategies are for Home Sleep Apnea Testing to keep patients and staff safe?

	Extremely Important	Very Important	Somewhat Important	Slightly important	Not at all important	Would avoid
COVID-19 Virus testing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disposable device	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disposable effort bands	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Machine washing reusable effort bands	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sterilize reusable effort bands	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wipe units with disinfectant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wait at least 72 hours before handling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wear gloves when handling devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wear contact PPE when handling devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What other strategies do you feel are important for home sleep testing?

Section 4: Safety Concerns

Regarding conducting in-lab sleep studies, how concerned are you about the following?

	Extremely Concerned	Very Concerned	Somewhat Concerned	Slightly Concerned	Not at all Concerned
Exposing patients to COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exposing technicians to COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Droplet transmission from PAP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Droplet transmission from oxygen therapy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Airborne transmission from PAP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Airborne transmission from oxygen therapy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contaminated surfaces putting cleaning staff or future patients in the same room at risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PAP device contamination putting the next patient at risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Putting others in building with shared ventilation system at risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What other concerns do you have?

PPE

The CDC recommends the following PPE precautions When Performing Aerosol Generating Procedures (AGPs) in patients with known or suspected COVID

•If performed, the following should occur: ◦HCP in the room should wear an N95 or higher-level respirator such as disposable filtering facepiece respirators, PAPRs, and elastomeric respirators, eye protection, gloves, and a gown.

https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html#take_precautions

In your opinion, what personal protective equipment (PPE) do you think technicians should wear if COVID-19 viral status is unknown?

- Aerosol Precautions (N95, gown, gloves, face shield) all the time
- Aerosol Precautions only when PAP is being used
- Contact Precautions (surgical mask, gown, gloves)
- Surgical mask and gloves
- Surgical mask only
- Gloves only
- No special precautions needed
- Other

Other, please specify

Section 5: Safety Precautions

How important do you feel it is for the following safety precautions to be in place prior to doing/expanding in-laboratory sleep testing?

	Extremely Important	Very Important	Somewhat Important	Slightly important	Not at all important
Patient COVID-19 virus testing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parent COVID-19 virus testing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you are able to do COVID-19 virus testing before a study, what do you think is the longest time before the study that you would feel safe that airborne PPE or other COVID precautions would not be needed?

- Rapid testing at time of study
- 1 day before
- 2-3 days before
- 4-7 days before
- Any Prior testing
- No testing would make me feel safe that contact or airborne precautions were not needed

Why do you feel contact or aerosol precautions are still needed? (Choose all that apply)

- High False negative testing rate
- Other

Other, please specify

The CDC recommends that healthcare workers be tested for COVID-19 only if symptomatic. In your opinion what COVID-19 viral testing should be done on technicians?

- No testing needed unless symptomatic
- At least once
- Intermittently (ie. weekly or bi-weekly)
- Other

Other, please specify

The CDC recommends the following precautions When Performing Aerosol Generating Procedures (AGPs) in patients with known or suspected COVID.

- **Some procedures performed on patients with known or suspected COVID-19 could generate infectious aerosols. Procedures that pose such risk should be performed cautiously and avoided if possible.**
- **The number of HCP present during the procedure should be limited to only those essential for patient care and procedure support. Visitors should not be present for the procedure.**
- **AGPs should ideally take place in an AIIR.**
- **Clean and disinfect procedure room surfaces promptly as described in the section on environmental infection control below.**
- **Routine cleaning and disinfection procedures (e.g., using cleaners and water to pre-clean surfaces prior to applying an EPA-registered, hospital-grade disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the product's label) are appropriate for SARS-CoV-2 in healthcare settings, including those patient-care areas in which aerosol generating procedures are performed.**

Information about Airborne Infection Isolation Rooms (AIIRs):

- **AIIRs are single-patient rooms at negative pressure relative to the surrounding areas, and with a minimum of 6 air changes per hour (12 air changes per hour are recommended for new construction or renovation).**
- **Air from these rooms should be exhausted directly to the outside or be filtered through a high-efficiency particulate air (HEPA) filter directly before recirculation.**
- **Room doors should be kept closed except when entering or leaving the room, and entry and exit should be minimized.**
- **Facilities should monitor and document the proper negative-pressure function of these rooms.**

https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html#take_precautions

Regarding opening or increasing in-lab sleep testing, how important do you feel it is for the following safety precautions to be in place for patients with PAP titrations if COVID viral status is unknown?

	Extremely Important	Very Important	Somewhat Important	Slightly important	Not at all important
In-line viral filters/nonvented masks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Viral filter before device	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Super-cleaning/sterilizing rooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
HEPA filter or high air exchange rate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negative pressure rooms or use of devices that can effectively provide negative pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disposable supplies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avoiding scheduling patients for several nights between studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limiting visitors to 1 parent only or essential support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you feel that the aerosol precautions such as above are still needed if a patient has recent COVID-19 negative viral testing?

- Yes
- No

Section 6: Supply Chain

How concerned are you about the AVAILABILITY of the following as relates to the management of sleep patients and sleep studies?

	Extremely Concerned	Very Concerned	Somewhat Concerned	Slightly Concerned	Not at all Concerned
PPE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
COVID-19 viral testing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-vented masks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disposable supplies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sleep lab space (ie. redeployment for COVID care)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negative pressure rooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Home CPAP or BiPAP units	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Home Ventilators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Home oxygen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there any other supplies that you are worried about the availability of?

Section 7: Other Concerns**How concerned are you ...**

	Extremely Concerned	Very Concerned	Somewhat Concerned	Slightly Concerned	Not at all Concerned
That patients with severe disease will be harmed because of delay in testing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That infection control policies will prevent you from starting or expanding titration studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That risk management will prevent you from starting or expanding titration studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About financial losses due to limited testing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The added cost of safety precautions for in-lab testing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 8: Patient Safety Concerns

How important do you feel it is for these safety precautions to be in place to make your patients FEEL SAFE to come for in-lab sleep studies

	Extremely Important	Very Important	Somewhat Important	Slightly important	Not at all important
Screening for temperature and symptoms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limiting testing to only COVID-19 virus negative patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Testing technicians COVID-19 virus at least once	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having technicians wear masks and gowns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What other steps would make patients feel safe to have sleep testing?

Section 9: Insurance Coverage (You are almost done)

How important is it for insurers to cover the following devices and supplies TEMPORARILY without prior in-lab testing for all patients?

	Extremely Important	Very Important	Somewhat Important	Slightly important	Not at all important	
CPAP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Bilevel PAP under RAD criteria	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Bilevel PAP with a backup rate (BiPAP ST, SV, VAPS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Non-invasive ventilators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Oxygen therapy during sleep	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	Extremely Important	Very Important	Somewhat Important	Slightly important	Not at all important	Would avoid
Given the shortage of ventilators, how important do you feel it is for insurers to cover RAD E0471 devices if the patient otherwise qualifies for a ventilator?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Given expected limitations on titration studies and limitations on home ventilator availability due to COVID, please answer the following questions.

If Insurers required more than just clinical history to TEMPORARILY cover RAD devices with a backup rate (E0471), what non-sleep study data could be used for patient to qualify for the following conditions?

Obstructive sleep apnea with hypoventilation from conditions including obesity hypoventilation, COPD, neuromuscular disorder
(Choose all that apply)

- High residual AHI despite maximal settings on adherence data
- Intolerance despite good mask fit to CPAP or BiPAP
- HCO3 \geq 27 despite CPAP or BiPAP
- HCO3 \geq 28 despite CPAP or BiPAP
- Elevated ABG PCO2 despite CPAP or BiPAP
- Current criteria for non-invasive ventilator
- History of hospitalization for respiratory failure
- Suboptimal clinical response on CPAP or BiPAP
- History of COPD or severe respiratory disease alone
- Hypoxia on overnight oximetry testing
- Home TCCO2 testing
- Severe morbid obesity alone without known CO2 status
- Documentation of medical necessity only
- Other

Other, please specify

Primary, narcotic-induced or treatment emergent central sleep apnea
(Choose all that apply)

- High residual AHI on adherence data
- High central AI on adherence data
- Intolerance despite good mask fit
- Physician analysis of waveform data from PAP device
- History of hospitalization for respiratory failure or heart failure
- Clinical risk factors for central sleep apnea
- Suboptimal clinical response on CPAP or BiPAP
- Hypoxia on Overnight oximetry testing
- Cover based on provider recommendation only
- Cardiopulmonary coupling
- Other

Other, please specify

How would you define high residual AHI on either adherence data or prior titration study for the sake of qualifying a patient for a device with a backup rate? (Pick multiple if any would be adequate)

- Apnea hypopnea index (AHI) ≥ 5
- Central apnea index (CAI) ≥ 5 regardless of obstructive AHI (OAH)
- CAI ≥ 5 with OAI < 5
- CAI ≥ 5 with OAI and hypopnea index < 5
- CAI ≥ 5 with under 50% OA
- AHI ≥ 5 with under 50% OA and adequate leak control
- AHI ≥ 15 with under 50% OA and adequate leak control
- CAI ≥ 15 regardless of OAH
- AHI > 5 with suspected periodic breathing or Cheyne Stokes respiration on adherence data
- AHI > 15 with suspected periodic breathing or Cheyne Stokes respiration on adherence data
- Other

Other, please specify

	Extremely Important	Very Important	Somewhat Important	Slightly important	Not at all important
If an insurer allows a patient to qualify without testing, and the patient is using and benefiting from PAP. How important do you feel it is for home or in-lab testing to be done later to confirm a diagnosis?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If a patient has been benefiting from PAP and testing is done and the patient does not meet insurance criteria for treatment, how important is it for insurers to continue to pay for the machine and supplies?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How important do you feel it is for insurers to cover the following after the acute COVID pandemic?

	Extremely Important	Very Important	Somewhat Important	Slightly important	Not at all important
Viral filters for home machine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extra supplies if the patient develops COVID-19 or other severe respiratory illness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other supplies if shown to reduce transmission risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extend qualification period to meet adherence if care is delayed or suboptimal due to COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 10: Clinical management (Last section)

What changes have you made to your sleep clinic due to COVID-19?

- Only Virtual visits
 In-person visits only by provider approval
 In-person visits by patient preference
 Closed to all visits
 No limitations on visits
 Other
 NA

Other, please specify

What percentage of your clinic visits were virtual BEFORE COVID-19?

- None
 < 5%
 6-25%
 26-50%
 >50%
 All
 NA

What percentage of your clinic visits do you expect to be tele AFTER COVID-19?

- None
 < 5%
 6-25%
 26-50%
 >50%
 All
 NA

In general, how often do you feel face to face visits are needed for sleep patients?

- Never
 At least once at any point
 At least once after starting on PAP
 At least once per year
 Only if not doing well clinically
 Other

Other, please specify?

What should be required for patients to keep machine and get ongoing DME supplies after initial setup? (Choose all that would qualify)

- Initial Prescription only
 Automatic DME approval for device and supplies as long as adherence data usage and residual AHI criteria met
 Automatic DME approval for device and supplies as long as adherence data usage criteria met
 Face to face (or video) note of adherence and clinical benefit
 Phone OR face to face note of adherence and clinical benefit
 Face to face visit but NO need for meeting benefit or adherence requirements if note from provider stating reviewed data and why PAP is still needed
 No visit needed but note from provider that adherence data was reviewed and usage and residual AHI requirements were met
 Other

Other, please specify

What do you think should be required in patients who have been stable on PAP for over 1 year to get ongoing supplies? (Choose all that would qualify)

- Annual Prescription only
- Annual Prescription for automatic DME renewal of supplies as long adherence data usage and residual AHI criteria met
- Device-life prescription for automatic DME renewal of supplies as long adherence data usage and residual AHI criteria met
- Annual face to face (or video) note of clinical benefit and adherence
- Annual phone OR face to face note of clinical benefit and adherence
- Annual visit only if adherence data doesn't meet usage of residual AHI criteria
- No visit needed but annual note that provider reviewed adherence data
- Coverage even if usage does not meet criteria as long as provider visit with notation stating reason for suboptimal use and why PAP should be covered
- Other

Other, please specify

What documentation should insurers accept from providers to qualify for PAP supplies and device if adherence not met? (choose all that would qualify)

- Regular but inadequate use due to chronic short sleep time or multiple jobs
- Irregular or short use due to documented shift work
- Regular but inadequate use due to suboptimal setting or pressure intolerance with plan to adjust setting
- Mask tolerance or high leak with plan to adjust mask
- Personal illness or family care responsibilities preventing or limiting use
- Lack of supplies preventing use
- Broken equipment
- Lost supplies
- Insurance should not pay for device or supplies if patient is not adherent
- Inadequate mask fitting due to COVID-19
- Documentation that patient was hospitalized and unable to use their own equipment
- Developmental challenges or age less than 18
- Other

Other, please specify

Final Comments

What other comments do you have about about COVID-19 and sleep management?

Thank you for completing the survey. If you have any questions, please contact Karin.johnson@baystatehealth.org

Table S1: Which patients will you offer testing to in the next month?*

	All Unique Centers (n=297)	NE & W US (n=107)	SE, MW, SW US (n=160)	Urban/suburban (n=246)	Rural (n=49)
Urgent					
Diagnostic	176/265 (59.9)	74/107 (69.2) [†]	77/160 (48.1)	150/247 (60.7)	26/50 (52.0)
Titration	92/265 (31.3)	36/107 (33.6)	46/160 (28.8)	83/247 (33.6) [†]	9/50 (18.0)
Adult					
Diagnostic	170/265 (57.8)	59/107 (55.1)	96/160 (60.0)	145/247 (58.7)	25/50 (50.0)
Titration	79/265 (26.9)	25/107 (23.4)	49/160 (30.6)	68/247 (27.5)	11/50 (22.0)
Pediatric					
Diagnostic	88/157 (56.1)	31/57 (54.4)	42/86 (48.8)	71/137 (51.8)	7/20 (35.0)
Titration	32/157 (20.4)	10/57 (17.5)	20/86 (23.3)	32/137 (23.4) [†]	0/20 (0.0)
Patient Characteristics					
Low-risk for severe COVID	36/265 (13.6)	25/107 (23.4)	39/160 (24.4)	62/247 (25.1)	9/50 (18.0)
COVID recovered	66/265 (24.9)	25/107 (23.4)	39/160 (24.4)	54/247 (22.1)	12/50 (24.0)
COVID PCR negative	109/265 (41.1)	38/107 (35.5)	63/160 (39.4)	93/247 (37.7)	16/50 (32.0)
Any willing patient	71/265 (26.8)	23/107 (21.5)	46/160 (28.8)	55/247 (22.3)	16/50 (32.0)

*Data presented as n/# respondents performing test type (%)

[†]Effect of US region on diagnostic testing: $p=0.001$; Effect of setting on urgent titration testing: $p=0.030$; Effect of setting on Pediatric titration: $p=0.014$

US: United States; NE: Northeast; SE: Southeast; MW: Midwest; SW: Southwest; The one respondent from Puerto Rico was not included in the regional US analysis.