NETEC COVID-19 Webinar Series:

A Balance of Safety and Efficiency: Pearls & Pitfalls for COVID-19 Testing Strategies
Welcome

Amanda Grindle, MSN, RN, CNL, CPN, CCRN
Welcome: Amanda Grindle, MSN, RN, CNL, CPN, CCRN

COVID-19 Testing Strategies: Perspectives from a Southern, Urban Emergency Department: Anna Quay Yaffee, MD, MPH

COVID-19 Testing Strategy at Mass General: Josh Baugh, MD, MPP

NETEC Resources: Amanda Grindle, MSN, RN, CNL, CPN, CCRN

Questions and Answers with NETEC
Welcome

National Emerging Special Pathogens Training and Education Center

Mission Statement
To increase the capability of the United States public health and health care systems to safely and effectively manage individuals with suspected and confirmed special pathogens

For more information
Please visit us at www.netec.org
or email us at info@netec.org
<table>
<thead>
<tr>
<th>NETEC Overview</th>
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<table>
<thead>
<tr>
<th>Assessment</th>
<th>Education</th>
<th>Technical Assistance</th>
<th>Research Network</th>
</tr>
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</table>
| Empower hospitals to gauge their readiness using **Self-Assessment** | Provide self-paced education through **Online Trainings** | Compile **Online Repository** of tools and resources | Online Repository  
Built for rapid implementation of clinical research protocols |
| Measure facility and healthcare worker readiness using **Metrics** | Deliver didactic and hands-on simulation training via **In-Person Courses** | Develop customizable **Exercise Templates**  
Based on the HSEEP model | Develop Policies, Procedures and Data Capture Tools to facilitate research |
| Provide direct feedback to hospitals via **On-Site Assessment** | COVID-19 focused **Webinars** | Provide **Emergency On-Call Mobilization** | Create infrastructure for a **Specimen Biorepository** |

**Cross-Cutting, Supportive Activities**

- **NETEC COVID-19** focused webinars
COVID-19 Testing Strategies: Perspectives from a Southern, Urban Emergency Department

Anna Quay Yaffee, MD, MPH
# COVID-19 Testing Strategies: Perspectives from a Southern, Urban Emergency Department

## Testing at Emory Healthcare

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td><strong>Who</strong></td>
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</tr>
<tr>
<td><strong>What</strong></td>
<td>What type of test should be used?</td>
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<tr>
<td><strong>When</strong></td>
<td>When should testing occur?</td>
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## COVID-19 Testing Strategies: Perspectives from a Southern, Urban Emergency Department

### Testing at Emory Healthcare

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Why should a patient be tested?

If patient is symptomatic
- For risk stratification, infection control precautions, and management
- For public health mitigation
  - Isolation
  - Contact tracing and quarantine
  - Accurate data

If patient is asymptomatic
- Understand community prevalence
- Public health investigation
- Risk mitigation
  - Preprocedural
  - High risk comorbidities
Who gets tested:

- All symptomatic patients (persons under investigation – PUI)
- All inpatient and observation admissions
- Pre-procedural testing
- Symptomatic healthcare workers
- Special circumstances
Who gets tested?

Pre-procedural testing

- Patients having anesthesia services
- Patients with likely inpatient admission following procedure
- Interventional Oncology procedures
- Procedures in airway, mouth, lungs, ENT
  - Bronchoscopy, PFTs, Tracheostomy
  - Electroconvulsive therapy
  - Oral/maxillofacial, ENT procedures
  - Sleep studies (CPAP)
  - GI procedures
- TEE, Cardiac stress, scheduled caths
- Prostate biopsy
- Ophthalmologic surgeries
- Orthopedic surgeries
What type of test?

Rapid test availability limited

Regular, batched testing
- All admitted patients
- Pre-procedural patients
- Healthcare workers

Rapid testing
- Patients preparing for immediate organ transplantation
- If additional availability:
  - Patients who can be discharged to congregate settings
  - Patients who are low risk for COVID-19 and need emergent BiPAP
  - Patients who could be admitted to the observation unit if negative (asthma/COPD, CHF pathways)
When should testing occur?

- As soon as patient is considered likely for admission or procedure
- For elective procedures, ideally within 72 hours of procedure
  - Some exceptions within 96 hours (colonoscopy, and Tuesday cases)
  - Self quarantine after testing and before procedure
- Immediately before organ transplantation
Where should testing occur?

In Emergency Department
- Symptomatic patients requiring emergency care
- Patients admitted through the ED

In testing clinic
- For pre-procedural testing
  - Preferred as a result from our facility
  - Some exceptions
- For symptomatic patients not requiring emergency care
Testing Pearls and Pitfalls

Patient and family perspective
COVID-19 Testing Strategies: Perspectives from a Southern, Urban Emergency Department

Testing Pearls and Pitfalls

- Patient and family perspective
- Patient refusal
- Limitations of testing availability
- Rapid versus regular batched test
Testing Pearls and Pitfalls

- Patient and family perspective
- Patient refusal
- Limitations of testing availability
- Rapid versus regular batched test
- Impact on hospital operations (e.g. cohorting, PPE use)
Impact on Hospital Operations

Masks are required at all Emory locations
## Testing Pearls and Pitfalls

- Patient and family perspective
- Patient refusal
- Limitations of testing availability
- Rapid versus regular batched test
- Impact on hospital operations (e.g. cohorting, PPE use)
- Changing guidelines
Managing Changing Guidelines

Emory Healthcare ED COVID-19 Standard Operating Procedures

This document is a work in progress, meant for internal EHC ED use, only. This is updated often with evolving information. Please submit feedback HERE.

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Updates March 30, 2020:
- Isolation orders
- COVID Critical Care Guidance
- Where to find COVID results in EMR

Updates April 1, 2020:
- EHC Mask Policy Updates
- ACE PPE for ANY COVID PUI

Updates April 5, 2020:
- Out of Hospital Cardiac Arrest Guidance
- ED Mask Guidelines
COVID-19 Testing Strategy at Mass General

Josh Baugh, MD, MPP
COVID-19 Testing Strategy at Mass General

Massachusetts Department of Public Health COVID-19 Dashboard - Friday, June 26, 2020

Daily and Cumulative Confirmed and Probable Cases

Total COVID-19 Cases To Date by Date Individual Tested or Date of Symptom Onset

- New Confirmed Cases
- New Probable Cases
- Cumulative Total Cases

Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences; Tables and Figures created by the Office of Population Health.

Note: all data are current as of 1000am on the date at the top of the page; *Excludes unknown values. Data previously shown according to date report received; data now presented according to date the individual was tested. Due to lag in reporting by laboratories, counts for most recent dates are likely to be incomplete. Includes both confirmed and probable cases.
### Testing in the Emergency Department

**Three key questions:**

1. **Who**
   - Who gets a COVID-19?

2. **Who**
   - Who receives full COVID-19 respiratory precautions?

3. **Who**
   - Who gets a rapid versus a routine test?
COVID-19 Testing Strategy at Mass General

Who gets a COVID-19?

- Anyone our clinicians think might have COVID-19
- All admissions to the hospital or our observation unit
- All patients being discharged to a congregate living facility
Who receives full COVID-19 respiratory precautions?

- All patients who have *any* COVID-19 symptom(s)
- Asymptomatic patients with the following high-risk features:
  - Undomiciled
  - Receives hemodialysis
  - Coming from a congregate living setting
  - Known exposure to a COVID-19 patient in past two weeks
  - Cannot provide a full history
COVID-19 Testing Strategy at Mass General

Who gets a rapid versus a routine test?

- Rapid test turnaround time = 2-3 hours
- Routine test turnaround time = 6-8 hours
- We currently have enough rapids for ~60% of our ED tests
- How we use them has major operational impact
## COVID-19 Testing Strategy at Mass General

### Who gets a rapid versus a routine test?

<table>
<thead>
<tr>
<th><strong>Rapid test used:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Patients being admitted with respiratory precautions</td>
</tr>
<tr>
<td>✓ Patients needing a test result for other disposition</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Routine test used:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Patients being admitted without respiratory precautions</td>
</tr>
<tr>
<td>✓ Patients being discharged</td>
</tr>
</tbody>
</table>
COVID-19 Testing Strategy at Mass General

Admitting Patients with Respiratory Precautions

- Test results needed before admission order placed (except ICU)
- We have built a tool for ED clinicians to assess whether patients can be cleared after a single negative test
- The tool uses symptoms, risk factors, and imaging results
# COVID-19 Testing Strategy at Mass General

## COvid Risk cALculator

**Epidemiology**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Cannot obtain History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has the patient been in close contact (≤ 6 ft) with a person with confirmed COVID-19 for more than 10 minutes within the last 14 days?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: HCWs meaning appropriate PPE caring for COVID-19 patients are not considered exposed.*

<table>
<thead>
<tr>
<th>Setting</th>
<th>Private home</th>
<th>Congregate setting</th>
<th>Undomesticated/experiencing homelessness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Symptoms**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myalgia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headache</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sore Throat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss of smell</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Cough**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortness of Breath</td>
<td></td>
<td></td>
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</tbody>
</table>

**Chest Imaging**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest imaging has the patient had in the prior 24 hours?</td>
<td>CT Chest</td>
<td>CXR</td>
</tr>
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</table>

**Recommendation**

**Sign this note to discontinue COVID-19 isolation status.** OK to remove enhanced respiratory isolation precautions.

If not the attending of record, confirm that I have discussed these criteria with the attending of record who agrees and will sign this note within 24 hours.

Yes | No
COVID-19 Testing Strategy at Mass General

Special Cases

- Patients who have recovered from COVID-19
- Patients with a recent negative test
COVID-19 Testing Strategy at Mass General

Keeping Clinicians Current

- Adherence to the most up-to-date protocol is challenging
- We are trying to simplify and limit changes as much as possible
- Clinical decision support through the EHR is essential
COVID-19 Testing Strategy at Mass General

We know our COVID protocols are changing a lot.

That's why we summarized the latest info here.

Scan this QR code with your phone to see the latest.
COVID-19 Testing Strategy at Mass General

Pre-procedural Testing

- Patients must receive COVID-19 test within three days of procedures
- Scheduled by the procedural service, occurs at local testing site
- Patients advised to self-quarantine after the test
COVID-19 Testing Strategy at Mass General

Pre-procedural Testing

- If test and screening are negative, regular precautions used
- If test or screen positive, clinical discretion regarding urgency
- The process is very labor-intensive
  - EHR support would help
NETEC Resources

Amanda Grindle, MSN, RN, CNL, CPN, CCRN
NETEC will continue to build resources, develop online education, and deliver technical training to meet the needs of our partners.

**NETEC is Here to Help**

**Ask for help!**

Send questions to [info@netec.org](mailto:info@netec.org) - they will be answered by NETEC SMEs

Submit a Technical Assistance request at [NETEC.org](http://NETEC.org)
Questions and Answers