

National Academies ILAR

Occupational Health during a Pandemic

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EMORY | YERKES NATIONAL PRIMATE RESEARCH CENTER



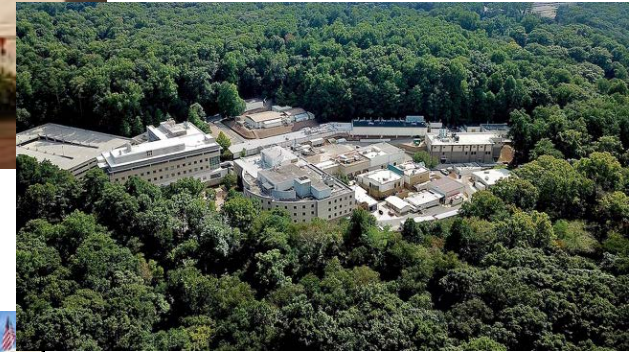
Background

Academic, Healthcare and Research University

- 31,217 employees,
 - 24,129 healthcare employees
 - 80% are healthcare employees

Yerkes National Primate Research Center

- Approximately 600 employees

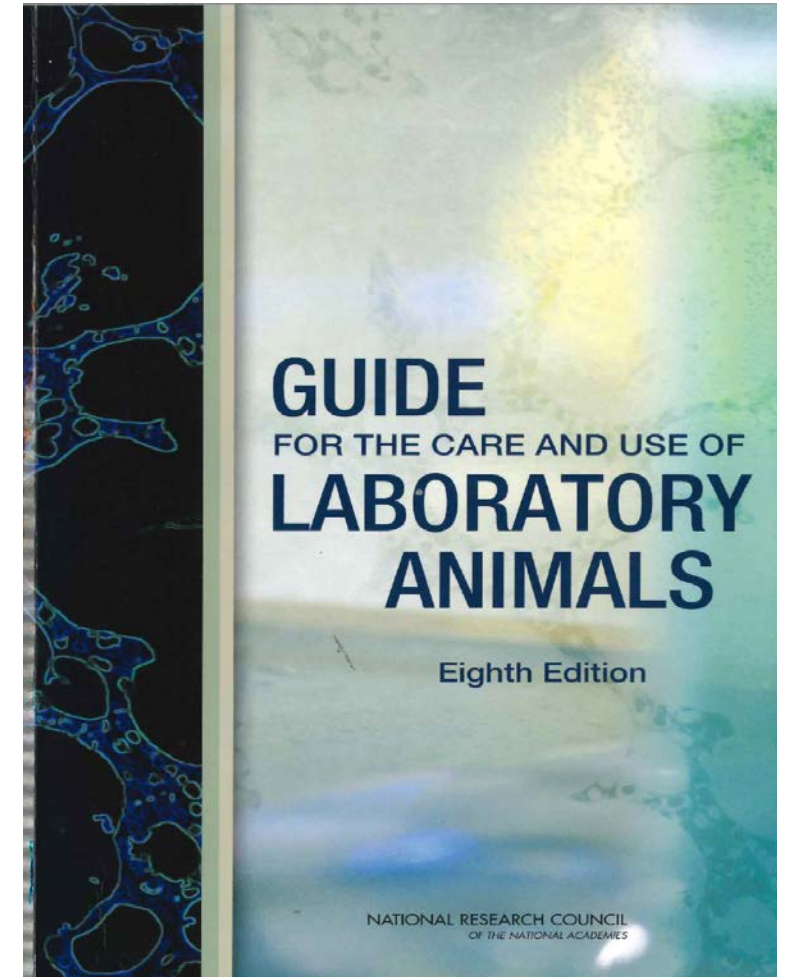


Occupational Health Program

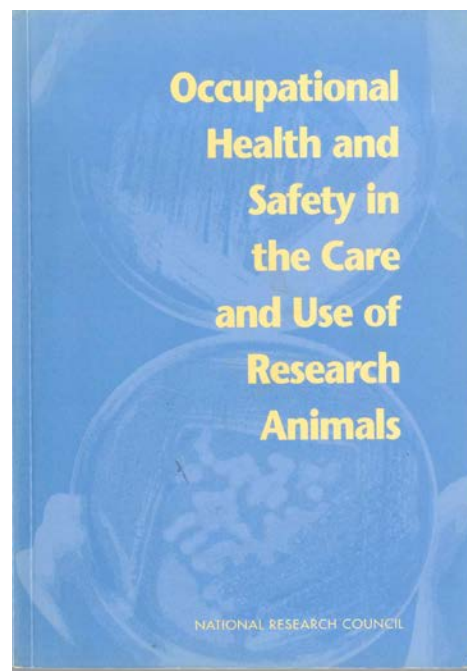


Occupational Health Program

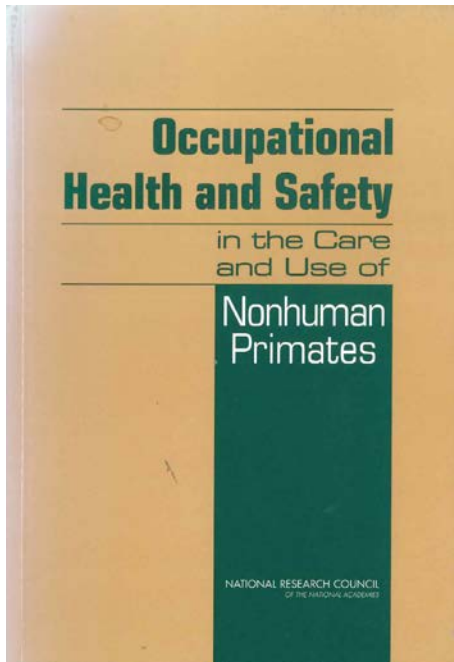
- National Research Council:
 - Guide for the care and use of Laboratory Animals 8th edition (2010)
 - Each institution must establish an occupational health and safety program as an essential part of the overall Program of the animal care and use.



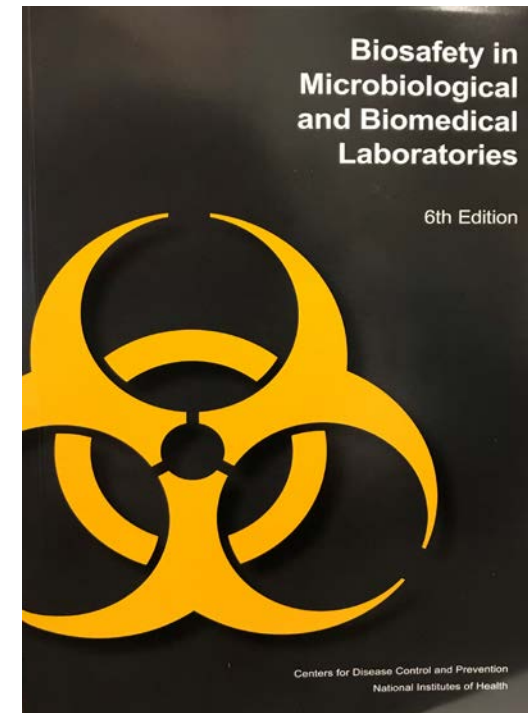
Occupational health and safety in the care and use of research animals, (1997)



Biosafety in Microbiological and Biomedical Laboratories 6th edition (2020)



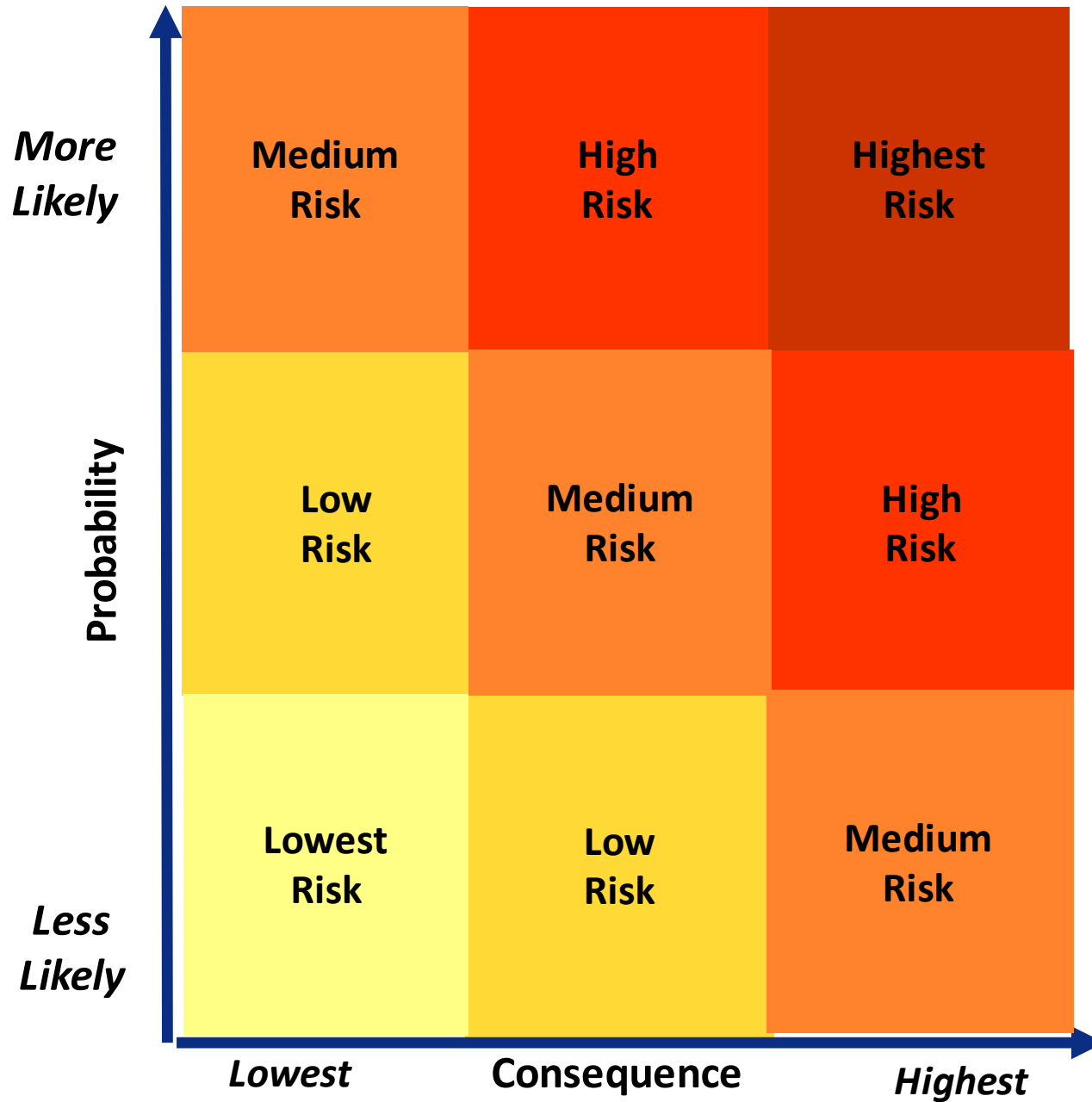
Occupational Health and Safety in the care and use of nonhuman primates, (2003)



Occupational Health and SARS CoV-2

- Identify Hazards
- Comprehensive assessment of hazards, team
- Identify the hazards through, review of literature, subject matter experts, proactive audits, professional associations, organizational resources, evaluation of near misses, illness and injury logs.





Occupational Health and SARS CoV-2

- Risk Assessment
 - “Novel” virus
 - Droplet, airborne, contact ?
- Identify animal models
 - Development of vaccines, therapeutics understanding disease transmission and progression



Occupational Health and SARS CoV-2

- The demand for research A/BSL-3
 - Occ health clearances,
 - Respirator clearance
- Potential exposure
 - Quarantine
 - Testing
 - Determined before start research



Occupational Health and SARS CoV-2

- Quick ramp up of NHP ABSL-3 for COVID work.
 - Expand the team
 - 30 employees medically cleared and trained to work in the NHP-ABSL-3.
 - 30 days



Research in the BSL-3 lab spaces

Expand the team

20 additional researches medically cleared and trained to work in the BSL-3 Laboratories



Occupational Health and SARS CoV-2

- Develop/revise health questionnaires and processes
 - Reviewed by Occupational Health MD
 - All interactions virtual
 - Serum banking employees working in A/BSL-3
 - Agent awareness training
 - Worker anxiety

Criteria to Guide Evaluation of PUI for COVID -19	
CDC guidelines for general population	Emory guidelines for researcher working with COVID-19
Fever AND symptoms of lower respiratory illness (e.g., cough, shortness of breath)	Fever AND symptoms of lower respiratory illness (e.g., cough, shortness of breath)
<u>AND</u>	<u>AND</u>
Within in the last 14 days before symptom onset, • Travel from Wuhan City, China	Within in the last 14 days before symptom onset, • Worked with the virus
-or-	or-
• Close contact with a person who is under investigation for 2019-nCoV while that person was ill.	• Close contact with a person who is under investigation for COVID-19 while that person was ill.



Occupational Health and SARS CoV-2

- Protocols for those working with COVID in ABSL-3
 - Provide thermometer (non available)
 - Provide mask (face covering yes or no)
 - Quarantine guidelines
- Potential exposure guidelines
 - Work with infectious disease MD
 - Establish algorithms
- Testing
 - Access and priority
 - Sequencing

Self-Monitoring Symptom and Temperature Log

Name _____

Day	Date	Temperature—Report if above 100° F		Symptoms—Report any symptoms immediately. If at work, immediately go home.							
		AM	PM	Cough	Fever	Congestion	Sore Throat	Shortness of Breath	Body Aches	Fatigue	Diarrhea
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											

Immediately report any symptoms (fever >100°F, cough, shortness of breath or difficulty breathing, sore throat, congestion, body aches, fatigue, diarrhea) to Matthew Thompson 404-712-6863 so you can be prioritized for COVID-19 testing.

If you develop a fever or symptom immediately don a procedure mask, notify your supervisor and go home.

COVID Hotline TIC-OVID (404-712-6863)



Resources



Occupational Health and SARS CoV-2

33,557 employees, 24,129 healthcare employees

- 80% are healthcare employees

Occupational Health services pivoted to address the over whelming needs of the healthcare providers.



Occupational Health and SARS CoV-2

- Resources become limited
 - Occupational Health resources reallocated to address COVID in Healthcare
 - Setting up hotline, scheduling for COVID Testing
 - Limited testing , results 3-5 days
 - Contact tracing
 - required to identify contacts
 - Return to work clearances post exposure, symptoms and infection
 - university vs healthcare
 - Asymptomatic testing
 - Who, how often
 - Coordination and Communication



EMORY UNIVERSITY

CEPAR
 Office of Critical Event
 Preparedness and Response

SCHOOLS LIBRARIES RESOURCES

Search

ABOUT CEPAR
 IN THE NEWS
 TRAINING
 EMORY SPOTLIGHT
 LIVESAFE
 AED PROGRAM
 THREAT ASSESSMENT
 JUST IN TIME

OUR VISION
 The Office of Critical Event Preparedness and Response (CEPAR) serves as the center for Emory enterprise-wide planning for and coordinated response to catastrophic events affecting Emory and the broader community. Emory CEPAR is recognized locally, nationally and globally as a leader in sustainable community disaster resilience.

UPCOMING EVENTS & NEWS
 Getting The Most Out Of Self-Triage Websites: Experiences With COVID-19 And Principles For The Future, Health Affairs / May 7, 2020
 CEPAR's Dr. Isakov quoted in the article How To Stay Healthy When Your Child, Spouse or Roommate Has COVID-19, NPR / April 16, 2020
 A new web tool can help you figure out if those symptoms might be COVID-19, Scientific American / April 10, 2020
 Oregon prepares for coronavirus surge: New online tool will help track its spread, direct sick to open hospital beds, OregonLive / April 8, 2020
 VIDEO: Emory developed COVID-19 Triage App, Youtube / April 1, 2020
 Emory launches a new online tool for COVID-19 screening, The

QUICK LINKS
 Emory "Just in Time" Guide to Campus Emergencies (PDF)
 Emory Emergency Notification System
 Preparedness Checklist for Students (PDF)
 Preparedness Checklist for Staff/Faculty (PDF)
 Emory Police Department
 Emory Preparedness and Emergency Response Research Center
 NETEC (The National Emerging Special Pathogen Training and Education Center)

Check your risk for COVID-19
 CHECK YOUR RISK FOR COVID-19

Coronavirus
 Click here for the latest news & announcements from Emory
 CORONAVIRUS - LATEST UPDATES

COVID-19 - RETURNING TO CAMPUS - CAMPUS TODAY - RESOURCES

EMORY UNIVERSITY

EMORY FORWARD

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Looking Ahead

COVID-19 Information for the Emory Community

Based on the current COVID-19 conditions in Atlanta, and in consultation with public health experts on and off campus, Emory University has developed guidelines and resources for a continued safe learning environment this spring.

Latest Updates

- Learn more about the **COVID-19** **vaccines** at Emory.
- COVID-19** **testing** is required for all students coming to campus.

INFORMATION FOR

- Undergraduate Students
- Graduate and Professional Students
- Faculty
- University Staff
- Health Care Staff
- Media



GATHERING RISK

BENEFITS - REWARDS - CAREER - LEARNING - WELLNESS - WORK LIFE - RESOURCES

Working Through COVID-19
 WORKING THROUGH COVID-19

HARDSHIP FUND

FACULTY STAFF ASSISTANCE PROGRAM

SELF-SERVICE LOG IN

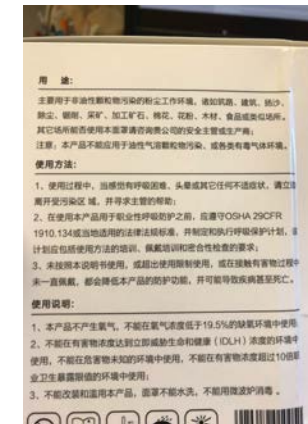
SEARCH JOBS

HEALTHY EMORY



Occupational Health and SARS CoV-2

- Resources PPE for training
 - No N95 to train
 - No PAPR supplies for training
- Not enough PPE for routine work
 - Mask
 - Face shields
 - Gloves



Impact



Occupational Health and SARS CoV-2

- Change in TB testing (skin test and IGRA)
 - Placing/ reading, move to surveillance
 - CDC recommendations 4 weeks post second dose
- N-95 medical clearances postponed
- Pulmonary function testing stopped
 - Outside contractors



Occupational Health and SARS CoV-2

- Routine on boarding health assessments
 - On site nurse no longer on site
 - Routine vaccination updates
- Clearance
 - Virtual , ZOOM
 - Health surveys, questionnaires
- Work force
 - Resiliency tested, stress, health, families



Preventing an Outbreak



Occupational health determination

- EHSO established guidelines for laboratory spaces
 - Space designations, markings, rotation of staff....
- 250-150 Square foot for each employee in lab and office space
 - Allow for 6 feet distancing
- Housekeeping assigned to clean frequently touched common surfaces through out the facility (doorknobs, elevator buttons, handrails)
- Setting up hand sanitization stations



Occupational health determination

- Room ventilation
 - Outside air
 - no recirculated air
- Lunch spaces and offices rearranged
 - Added plexiglass dividers
 - Limit the numbers
- Face covering
 - At all times



Occupational Health and SARS CoV-2

- Temperature checks for all staff
 - temperature checks entering the building
 - Who, why and how to react
- Daily symptoms check
- Limit number of employees gathering
 - Training
 - Standing meetings moved to virtual



Occupational Health and SARS CoV-2

- Staffing
 - stagger start times
 - Shift rotation, ½ , team works
- COVID “time”
 - Support staff to stay at home
 - Children
- Flu vaccination
 - Requirement



Hypothetical Outbreak



Scenario

- The facility has a strong occupational health and safety program
 - Supports good hygiene practices.
 - Provides locker rooms and shower facilities.
 - Encourage showering each day before leaving and at lunch breaks.
- Over the 4 days (8) employees called out sick with COVID symptoms
 - All tested positive, quarantine and contact tracing



Investigation

- What do they all have in common
 - **The same department**
 - **Shared the same locker room**
 - Some shared same work team
- 20 employees in total share the same locker room
 - 3 shift
- Testing completed on remaining employees
 - Additional 4 employees tested positive
 - 8 tested negative



Mitigation

- Departmental testing 60 + employee
 - No additional positive cases
- Locker room decontamination X 2
- Implemented changes in use of locker room
 - One person at a time, introduced a tagging system on locker room door
- Showers were no longer encouraged
- Added room air filtration units to the locker rooms
- Added face shield along with face covering for all members of department.
- Refocus on practices



Lessons Learned



Lessons Learned

- How to develop new supply chains
- There are some process that need to be centralized
 - Purchasing
- How to maximize PPE
 - Setting up limited distribution
 - Decontamination of PPE
- Work from home
 - It is possible
 - ½ of the team moved to work form home



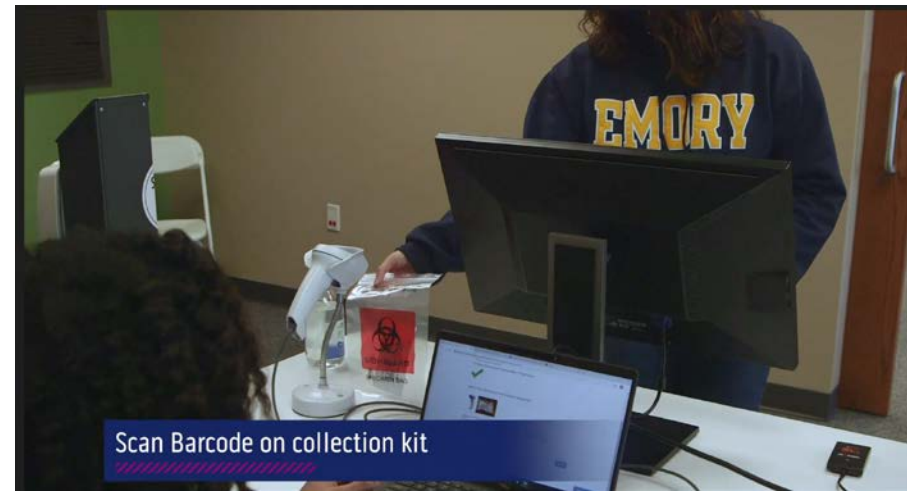
Lessons Learned

- Reallocating resources
 - In person health assessment move to virtual and questionnaire
- Know which spaces have outside air and how to change ventilation systems to provide outside air
- Changes in use of space
 - lunchrooms, meeting rooms, locker rooms, office space, lab space
- Importance of flexible HR policies
 - related to sick time, childcare



Lessons Learned

- Someone at the table where decisions are made
 - Unique requirements of the primate center
- Contact tracing and return to work clearances
 - Coordination and communication is critical
- Asymptomatic, routine testing



Conclusion

A successful occupational health program is developed on sound principles. Principles that are supported by the organization and focus on the health and safety of it's work force.

By Conducting ongoing, robust risk assessments, implementing appropriate risk mitigation that allows the program to remain agile to address whatever hazard that are awaiting around the next corner.



