



AIR SAMPLING REQUESTS AND REPORT FORM
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AIR SAMPLING REQUESTS AND REPORT FORM

Air sampling for mold counts is collected on an ongoing basis, regardless of construction activities, in high-risk units in the hospital. Air sampling for mold counts may be collected at strategically important locations during the demolition and construction phases of projects. The purpose of the air sampling is to assess dust mitigation at the project site. For lengthy projects, multiple air sampling may be required. If mold counts are found to be unacceptable, construction activities may be ordered stopped by HEIC. Air sampling for mold counts should be repeated and the project site must be evaluated and corrected for any breaks in dust mitigation that could contribute to the higher than acceptable mold count.

Department Responsibility

Department of Hospital Epidemiology and Infection Control (HEIC):

1. Performs patient surveillance by reviewing microbiology and autopsy reports, investigating nurse/physician reports, and performing chart review as needed.
2. Identifies areas requiring air sampling prior to construction utilizing a walk-through assessment with Design and Construction Project Manager.
3. Monitors and inspects construction projects (or delegates to trained Facilities personnel), and plans concurrent meetings as needed. Requests additional air sampling related to construction as needed.
4. Orders additional event-related air sampling (e.g. post water leakage in ceilings, ceiling tile collapse, etc.).

Office of Environmental Health and Safety (OEHS):

1. Performs a pre-sampling walk-through assessment and documentation of findings utilizing report form(s). (See Forms attached.)
2. Performs fungal sampling using the Biotest RCS Centrifugal Air Sampler, SAS-100 Sampler, or any other instrument deemed appropriate by the Industrial Hygiene (IH) team.
3. Obtains particle counts when appropriate or by request from HEIC.

Office of Design, Construction and Facilities:

1. Advises HEIC of upcoming construction or maintenance projects.

2. Advises HEIC of dates of specific construction and demolition phases to allow timely ordering of air sampling.

Monitoring Strategy:

Routine and Ad-hoc Air Sampling:

- a. **Routine sampling** will be performed on a monthly basis on the units providing care to our most at risk patient populations. Services designated for routine air sampling include adult and pediatric hematology/oncology, adult transplant services, and pediatric bone marrow transplant. A list of sites for routine sampling will be generated by HEIC and maintained in OEH&S. Changes or addition to these locations should be communicated using the MICROBIOLOGY REQUISITION FOR AIR SAMPLES form (see form at end of Appendix E).
- b. **Ad-hoc sampling** may be requested by HEIC as needed (i.e. in response to an identified case of healthcare-associated mycosis or a potential cluster of fungal disease, construction project – see below). Specific locations and requested date of sampling will be submitted to OEH&S via e-mail as described below using the “MICROBIOLOGY REQUISITION FOR AIR SAMPLES.”
- c. **Sampling** will be conducted and samples submitted to the microbiology laboratory by OEH&S personnel as described below.
 1. The completed “MICROBIOLOGY REQUISITION FOR AIR SAMPLES” form shall be returned via e-mail (preferred) or fax (353-4348) to HEIC within 3 days of sampling.
 2. The completed “MICROBIOLOGY REQUISITION FOR AIR SAMPLES” form shall be returned to the submitting staff person (preferred) or faxed (353-4348) to HEIC within 3 days of sampling.
- d. **Sampling Outside Air.** A sample of the outside ambient air (e.g. ER parking lot and/or loading dock) shall be collected with each routine or ad-hoc sampling as a control for the testing media and device.

Construction Projects:

- A. Air sampling shall be based upon a completed Infection Control Risk Assessment for each project.
 1. Design and Construction shall submit an Infection Control Risk Assessment for each project to HEIC during a pre-construction meeting, well in advance of initiation of the project.
 2. IC personnel will complete the air sampling request form and e-mail to personnel designated by OEH&S. OEH&S will notify HEIC of changes to designated personnel.

3. Should air sampling be needed on an emergent basis, the Director of OEH&S shall be paged in addition to the e-mail submission of the request.
 4. Completed "MICROBIOLOGY REQUISITION FOR AIR SAMPLES" form shall be returned to HEIC as described above.
- b. Locations for sampling will be decided during construction/maintenance project planning and site walk through. Those locations will be detailed on the MICROBIOLOGY REQUISITION FOR AIR SAMPLES form submitted to OEH&S. In general, air sampling is obtained outside the barriers.
 - c. Outside ambient air sampling a sample of the outside ambient air (ER parking lot and/or loading dock) will be collected with each routine sampling as a control for the testing media and device.
 - d. Timing of sampling:
 - routine sampling throughout the construction phase in accordance with the recommendations of HEIC
 - IC may arrange in advance with OEH&S the desired testing dates for specific locations when repeat sampling will be needed during a construction project. Such arrangements shall be made in writing to the designated certified industrial hygienist.
 - e. Submitting Samples:

Each sample or series of samples will be submitted to the microbiology laboratory and the completed request/report form returned via e-mail or fax (353-4348) to the HEIC office within three days of the sampling date.

Investigation of the air quality of room(s) of patient(s) diagnosed with or suspected of having a healthcare-associated fungal infection of the lower respiratory tract shall be requested by HEIC as follows:

- a single sample in the room(s) occupied by the patient at symptom onset
- inspection of fan room with filtration or any part of the mechanical ventilation system that supplies the involved patient care room(s).
 - a. HEIC will notify OEH&S of the area(s) to be sampled via the "AD-HOC AIR SAMPLING REQUEST FORM." Sampling shall be scheduled to meet the needs of the specific unit/department involved.
 - b. Each sample shall be submitted to the microbiology laboratory and the completed "AD-HOC AIR SAMPLING REQUEST FORM" returned via e-mail or fax to the HEIC office within three days of the sampling date.

Sampling Procedure:

1. The involved unit/department(s) shall be notified by OEH&S of approximate date/time to expect sampling to occur.
2. Items to be addressed in the "Observations" section of the request/report form by the OEH&S staff person include physical condition of the area, amount of traffic, time and weather conditions, open vs. closed windows and doors, etc. Observations should include factors associated with increased risk of the presence of fungal spores such as plants, holes in ceilings or walls, or obviously dusty conditions.
3. Sampling with the device designated by the IH team will be completed according to the manufacturer's instructions.
4. To assure proper result delivery, air sampling specimens submitted to the microbiology laboratory by OEH&S personnel will be accessioned under the physician code for OEH&S. HEIC will retrieve results directly from the laboratory information system.

Equipment for Sampling:

1. Biotest RCS Centrifugal Air Sampler: Two-minute sample using fungal media strip (Bengal Rose). An unopened "control" strip will be included with each sampling. In addition to collection of the Biotest RCS sample, OEH&S will also collect a second, higher volume sample on an MEA agar plate using an SAS-100 air sampler
2. SAS-100 Sampler may be requested by HEIC for areas that show "heavy" growth using the Biotest, to better define numbers of colonies and species of fungus. Media to enhance fungal growth will be used.
3. TSI's AEROTRAK™ Handheld Particle Counter.

Reporting of Results:

1. Microbiology will report culture results after 5 days of incubation to IC via routine laboratory resulting methods.
2. Ranges of Acceptability:
 - a. Bio-air sampling results of 0-10 CFU will be considered within the acceptable range.
 - b. Results of greater than 10 CFU will be considered above the acceptable range. Areas with results of greater than 10 CFU shall be sampled again by OEH&S and investigated by Infection Control for possible sources. OEH&S will be notified of the need for repeat sampling via the "Ad-hoc Air Sampling Request Form" as described above.
 - c. Should repeat air sampling again reveal elevated fungal counts, Infection Control, OEH&S, and Facilities will investigate for possible sources and determine what if any

interventions are to be taken. Elevated fungal counts and intervention strategies will be discussed at Environmental Infection Control committee meetings.

3. HEIC will compile a report of accumulated fungal counts and relevant information collected at the time of sampling for review by the Environmental Infection Control committee, a subcommittee of the Infection Control Committee.
4. Regular reports, including walk-through assessments/plans, culture results, interventions and written evaluations will be made to the Environmental Infection Control committee. As appropriate, these reports will be sent to the Infection Control Committee, Office of Environmental Health and Safety, or any other pertinent committee/ department.



**HOSPITAL EPIDEMIOLOGY AND
INFECTION CONTROL:
APPENDIX E**

POLICY 5.1E
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