MICROBIOLOGY
& IMMUNOLOGY
SAFETY COMMITTEE MEETING

December 6th 2018
UNOFFICIAL GUIDE TO ECOMS

Angela Reid, Biosafety
Creating a new COMS protocol

• The following are subject to COMS oversight:
  ❖ Recombinant or synthetic nucleic acids as defined in the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules (NIH Guidelines)
  ❖ Human or non-human primate blood, cells, tissues, fluids, and secretions
  ❖ Biological toxins subject to the National Select Agent Registry
  ❖ Bacteria, virus, fungi, yeast, parasites, and prions

• PIs or their designees can create a new COMS protocol by logging in to eCOMS at https://esupport.hms.harvard.edu/COMSIAC UC
• Once on the homepage, on the left hand side, there will be a button to create a “New COMS Study.”

• Enter all of the information required in each field. On the last page, clicking “Finish” will bring you back to the main page for the study. Once you are ready to submit the study for review, click “Submit New Study.”  **NOTE: Only the PI can submit new protocols and amendments.**
PI **Designees**

- Only PIs or their Designees can edit COMS protocols
- Who can do what?

<table>
<thead>
<tr>
<th>PI</th>
<th>PI Designee</th>
</tr>
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</table>
| - Create a protocol/amendment  
- Edit protocols  
- Submit protocols/amendments  
- Submit annual updates  
- Copy protocols  
- Withdraw protocols  
- Inactivate protocols | - Create a protocol/amendment  
- Edit protocols  
- Submit annual updates  
- Copy protocols |
Creating an Amendment

• Used to make changes to an approved, active COMS protocol
• Two types
  ❖ Administrative (changes to personnel ONLY)
  ❖ Scientific (anything else—changes to facilities, biological agents, etc.).
• How to create an amendment

1. Under the study, in the left hand navigation bar, click the button to create an amendment to the study.

2. A new study page should pop up, that looks like the original, with the exception of the protocol number, which is the parent protocol number with a “-AXX” for the amendment number.

3. Click “Edit Project.”

***All information from the parent protocol will be copied into the amendment. DO NOT DELETE anything in the amendment—it’s linked directly to the parent and you will delete information in the original study.
Copying a COMS protocol

- Whenever a study is about to expire or is up for its five year renewal, you can copy the data from the current COMS into a new protocol, if you wish the study to continue.

- All of the information should transfer if the protocol was originally written in the new COMS system.

*TIP: If you download and save a PDF copy of an old approval letter, you can right click on the saved document in the file and select to “Open with” Microsoft Office Word. This might convert the text to an editable Word document, making it easier to transfer the information.
Withdrawing a Protocol (pre-approval)

• Sometimes a PI will decide not to go through with a study or a BSO will determine the contents of the application do not fall under COMS purview. In these and other scenarios where a protocol has not been approved by COMS, but is no longer necessary or desired, it should be withdrawn.
**Requesting COMS Protocol Inactivation**

- Whenever a study has expired, has been replaced with a new protocol, or is otherwise no longer active, it should be inactivated in the eCOMS system.
- This process is NOT automatic—even if a protocol expired. The PI has to request inactivation.
What are your COMS questions?
Not all disinfectants are created equal...
**QUATs**

- Quaternary ammonium compounds
- Common Brands: Lysol® and Clorox® wipes (read labels!!)
- Low Biological Activity—effective against bacteria, enveloped viruses, yeasts. NOT spores, prions, tuberculoidal bacteria
- NOTES: DO NOT mix with chlorine compounds (bleach); use for non-critical surfaces only
Alcohols

• 70% ethanol, propanol, or isopropanol
• Common Brands: Lysol I.C. Disinfectant Spray
• Intermediate Biological Activity—effective against bacteria, enveloped viruses, fungi, yeasts. NOT spores, prions
• NOTES: Low contact time (rapid evaporation), flammable vapors
Sodium hypochlorite

• Bleach-1:10 dilution= 0.5%
• Common Brands: Clorox® bleach
• Intermediate/High Biological Activity—effective against bacteria, viruses, yeasts, fungi, spores (at higher concentrations/contact times). NOT prions.
• NOTES: No toxic residues, unaffected by water hardness, inexpensive, fast acting, remove dried organisms and biofilms from surfaces, low incidence of serious toxicity, corrosive overtime without proper rinsing
Hydrogen Peroxide

- Usually 0.5-10%; 3% is most common
- Common Brands: Oxivir, Clorox Healthcare® Hydrogen Peroxide Cleaner
- Intermediate/High Biological Activity—effective against bacteria, viruses, yeasts, fungi, spores (at higher concentrations/contact times). NOT prions.
- NOTES: No toxic residues, extremely stable when properly stored (e.g., in dark containers)
Iodophors

- Common Brands: Wescodyne
- Low/Intermediate Biological Activity—effective against bacteria and viruses. NOT always yeasts and fungi. NOT spores or prions.
- NOTES: Mostly antiseptic, should be used only for non-critical surfaces
**Phenolics**

- Common Brands: Wex-cide, ProSpray, and Birex
- Low/Intermediate Biological Activity—effective against bacteria and viruses (NOT ALL). Some yeasts and fungi. NOT spores or prions.
- NOTES: Reactive, toxic, long contact times needed. Phenol derivatives originate when a functional group (e.g., alkyl, phenyl, benzyl, halogen) replaces one of the hydrogen atoms on the aromatic ring.
Lesson: Check yourself before you wreck yourself

- Read labels!
- Buy only EPA registered disinfectants
- Pay attention to manufacturer recommended use and contact time
- Pick a disinfectant for what agents you are working with
- Consider if spore or biofilm formation is possible or if there will be a high organic load
- Disinfect surfaces before and after work
Not all disinfectants are created equal...

<table>
<thead>
<tr>
<th>Disinfectant type</th>
<th>QUATs (quaternary ammonium compounds)</th>
<th>70% ethanol, propanol, or isopropanol</th>
<th>Sodium hypochlorite (bleach-1:10 dilution= 0.5%)</th>
<th>Hydrogen peroxide (usually 0.5-10%; 3% is most common)</th>
<th>Iodophors</th>
<th>Phenolics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common brands</td>
<td>Lysol® and Clorox® wipes (read labels!!)</td>
<td>Lysol I.C. Disinfectant Spray</td>
<td>Clorox® bleach</td>
<td>Oxivir, Clorox Healthcare® Hydrogen Peroxide Cleaner</td>
<td>Wescodine</td>
<td>Wex-cide, ProSpray, and Birex</td>
</tr>
<tr>
<td>Activity level</td>
<td>Low</td>
<td>Intermediate</td>
<td>Intermediate/ high</td>
<td>Intermediate/ high</td>
<td>Low/intermediate</td>
<td>Low/intermediate</td>
</tr>
<tr>
<td>Effective against</td>
<td>Bacteria, enveloped viruses, yeasts. NOT spores, prions, tuberculoidal bacteria</td>
<td>Bacteria, enveloped viruses, fungi, yeasts. NOT spores, prions</td>
<td>Bacteria, viruses, yeasts, fungi, spores (at higher concentrations/ contact times)</td>
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<td>Notes</td>
<td>DO NOT mix with chlorine compounds, i.e. bleach, should be used only for non-critical surfaces</td>
<td>Low contact time (rapid evaporation), flammable vapors</td>
<td>Broad spectrum, no toxic residues, unaffected by water hardness, inexpensive, fast acting, remove dried organisms and biofilms from surfaces, low incidence of serious toxicity, corrosive overtime without rinse</td>
<td>Extremely stable when properly stored (e.g., in dark containers). Decomposition in small containers is less than 2% per year at ambient temperatures.</td>
<td>Mostly antiseptic, should be used only for non-critical surfaces</td>
<td>Reactive, toxic, long contact times needed. Phenol derivatives originate when a functional group (e.g., alkyl, phenyl, benzyl, halogen) replaces one of the hydrogen atoms on the aromatic ring.</td>
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</table>
Christmas Decorations

• NO LIVE VEGETATION

• Artificial trees have to have a fire retardant rating

• Do not hang lights off of sprinkler heads

• Do not hang decorations near heat sources
Lab 200

- Mid to late January we will be testing the Refresher training for Laboratory Safety
- If you would like to participate in this testing please put a check mark next to your name on the sign in sheet.
- You receive credit for the training module through HTP for attending this testing session
Lab Safety
Orientation
Checklists

Lab Member
Lab Safety Orientation Checklists

Your Role

William Ganzenmuller has requested evaluation of Test Lab - Physics.

If the checklist has a due date it will display here: 11-DEC-2018

Please visit your Message Center in the Harvard Training Portal, locate William Ganzenmuller’s request in those listed and select Evaluate.

Please note that this mailbox does not receive replies.

Harvard University welcomes faculty, students, staff and other Harvard community members to the Harvard Training Portal, the University’s system for compliance and professional development training. If you need a reasonable accommodation to access any part of this system, please contact us through email: or phone: 617-495-4895.

#CHK001-TEST
Lab Safety
Orientation
Checklists
Your Role
Biological Sharps Containers

- Issues with pickups – Meeting with Stericycle to discuss
- Issues going forward with Stericycle sharps pickups email HMSSharps@stericycle.com your request should include:
  - Building
  - Room Number
  - Contact Information
  - Sharps container size (either floor or bench container)
- Don’t move the containers around from room to room – if you need additional containers let us know.
- The only items that should be put in these containers are glass pipettes, biologically contaminated glass, scalpels, needles or needles with attached syringes, razor blades & glass cover slips. Please refer to our Biological Sharps Disposal Cut Sheet
- **DO NOT** place plastic pipette tips in these containers – plastic pipette tips belong in the grey biohazard bins.
Biological Sharps Disposal

Collect biologically-contaminated physical sharps in a red sharps container

- **Physical Sharp** - Any item capable of puncturing or cutting the skin that is biologically-contaminated goes into red sharps containers.

- For biological labs, place both biologically contaminated and clean sharps into red sharps containers.

- For non-biological labs refer to non-biological sharps disposal guidance.

**Single-Use Containers:**
Close when full and place in Biowaste Bin

**Reusable Containers (HMS/HSDM Only):**
Collected and replaced by waste vendor

Never Overfill. Replace container when 3/4 full.