



University of South Alabama
Research Compliance News

5th Edition of the BMBL

The Biosafety in Microbiological and Biomedical Laboratories (BMBL) is a CDC/NIH publication which upon its first publication in 1984 became the cornerstone of biosafety practices and policy in the US. The BMBL was updated in February 2007. The 5th Edition has been modified to include additional chapters on the principles and practices of biosafety and on risk assessment, in addition all agent summary statements and appendices were revised. Due to the changes in the way we manage and conduct work in research labs where biohazards are used because of past and potential bioterrorist attacks, new topics have been added such as occupational medicine/immunization, decontamination, lab security and risk assessment and biological toxins.

The Office of Research Compliance and Assurance in conjunction with a representative from the Institutional Biosafety Committee will present an educational session in the fall on new and current topics outlined in the new edition of the BMBL. The BMBL 5th edition is available online at:
<http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm>

Are You Using Human Materials?

Many researchers are under the assumption that human cells in culture like HeLa, human embryonic cells or human tissue explants are harmless and therefore do not require registration for biosafety approval. Biosafety Level 2 (BL-2) practices and procedures must be followed when handling human blood, blood products, body fluids and tissues because of the infectious agents they may contain. BL-2 practices and procedures are consistent with the concept of "Universal Precautions" which requires all specimens of human blood, blood products, body fluids and tissues to be treated as if they are infectious. The federal regulation, Occupational Exposure to Bloodborne Pathogens, mandates a combination of engineering and work practice controls, training and hepatitis B vaccination to help control the health risk to employees resulting from occupational exposure to human blood and other potentially infectious materials which may contain human pathogens.

The Institutional Biosafety Committee (IBC) has approved a new policy of the use of human cell lines and cell cultures for research lab personnel. This information is located on the Biosafety website and can be viewed at:
<http://www.southalabama.edu/com/research/biosafety.shtml>

The policy states that all cell and organ cultures of human origin, including well established cell lines, shall be handled in accordance with OSHA BBP Standard and under BL-2 containment. All research using human or non-human primate blood, body fluids, tissues must register for use and approval with the IBC.

Inside This Issue

PAGE

Biosafety

| | |
|-------------------------------|---|
| BMBL, 5 th Edition | 1 |
| Use of Human Materials | 1 |
| Cross-contaminated cell lines | 2 |
| Principles of Biosafety | 2 |

Human Subjects:

| | |
|---|---|
| FDA's draft guidance on Adverse Event Reporting | 3 |
| CMS Clinical Research Policy | 3 |
| FDA's draft guidance on Investigators Responsibilities | 3 |

Animal Care and Use:

| | |
|-----------------------|---|
| IACUC training update | 4 |
|-----------------------|---|

Articles on Research Ethics: 4

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Cross-Contaminated Cell Lines

Alternatives to bleach:

Vital-1 is a product consisting of a solid material which you shake and pour on a spill (such as blood) and forms a gel like consistency making cleanup easier.

The Office of Research Integrity at DHHS posted on its website an article on cross-contaminated cell lines. A researcher who has used cell lines as a research tool for more than 40 years calls attention to the high and increasing level of cross-contaminated cell lines in cancer and other biomedical research that may have tainted up to 20% of publications and proposes a plan of action. For more information see <http://ori.hhs.gov/education/CellContamination.shtml>



Principals of Biosafety

The CDC/NIH identifies three basic principles of Biosafety:

1. **RISK ASSESSMENT:** It is the responsibility of the Investigator to assess the risk which the research poses to the health and well being of lab personnel and the environment. Based on this risk assessment, the Investigator should ensure that adequate precautions as indicated in the CDC/NIH publication Biosafety in Microbiology and Biomedical Laboratories (BMBL), 5th Edition are adhered to
2. **CONTAINMENT:** Containment is used to describe safe methods for managing infectious materials in the lab. The purpose of containment is to minimize or eliminate exposure of lab personnel, other persons, and the external environment to potentially hazardous agents.
3. **BIOSAFETY LEVELS:** There are various elements of containment in order to ensure a safe lab environment when working with biohazardous or infectious agents. These are indicated by varying biosafety levels (BSL):

BSL1: least amount of protection and is used with well-characterized agents not known to consistently cause disease in healthy adults. Example: E. coli {non-pathogenic strain} At least BSL-1 lab practices should be used with all recombinant DNA work, even if the work is exempt from the NIH Guidelines

BSL2: Suitable for work involving agents of moderate potential hazard to personnel and the environment. Example: human tissues/blood/cell lines, adenoviruses, HIV.

BSL3: Infectious agents that may cause serious or potentially lethal disease as a result of exposure by the inhalation route. Example: M. tuberculosis



Reducing Unnecessary Adverse Event Reports to IRBs: FDA Proposes New Guidance

On April 9, 2007, the FDA posted proposed guidance to assist researchers and others determine which events should be reported to IRBs, with intentions of reducing their workload. The new guidance acknowledges that FDA has received substantial input about IRB related problems. "IRBs have expressed concern that the way in which investigators and sponsors for IND studies typically interpret the regulatory requirement to inform IRBs of all unanticipated problems does not yield information about adverse events that is useful to IRBs. IRBs note that they receive increasingly large volumes of individual adverse event reports often lacking in context and detail that are inhibiting their ability to assume the protection of human subjects". FDA's view on reports that lack such evaluation of their relevance and significance to the study should not be provided to the IRB, as the IRB will be unable to assess the significance from the perspective of protecting the rights and welfare of study participants. More information on this topic will follow when the new guidance is released and review and recommendations have been carried out by the IRB Office. The draft guidance is available online at: <http://www.fda.gov/OHRMS/DOCKETS/98fr/07d-0106-qdl0001.pdf>

Revised CMS Clinical Research Policy: Expands Study Eligibility

The Centers for Medicare & Medicaid Services (CMS) issued a draft revision on April 10, reflecting recommendations to expand the types of clinical trials that are eligible for Medicare reimbursement. The policy proposes to replace the term "clinical trial" with "clinical research" to signal the broader approach to coverage. The policy provides a listing of various types of clinical studies that might be eligible for Medicare reimbursement under the new definition. CMS plans to publish a final policy no later than 60 days after which a 30 day comment period is provided, which ended on May 9, 2007. The proposed policy changes are available on the DHHS CMS site at: <http://www.cms.hhs.gov/mcd/viewdraftdecisionmemo.asp?id=186>

Source: Report on Research Compliance

Investigator Responsibilities Conducting Clinical Investigation of a Drug/Biological/Medical Device

The Food and Drug Administration (FDA) has recently issued a draft guidance to help investigators carry out their responsibilities with regards to protection of human subjects and ensuring integrity of data collected. The draft guidance also clarifies FDA's expectations concerning the investigator's responsibility for supervising a clinical study in which some study tasks are delegated to employees of the investigator or to outside parties. The guidance states that "in assessing the adequacy of supervision by an investigator, FDA focuses on four major issues: (1) whether delegated individuals were qualified to perform such tasks, (2) whether study staff received adequate training on how to conduct the delegated tasks and were provided with an adequate understanding of the study, (3) whether there was adequate supervision and involvement in the ongoing conduct of the study, and (4) whether there was adequate supervision or oversight of any third party involved in the conduct of a study to the extent such supervision or oversight was reasonably possible". The guidance document discusses each issue in detail. In addition, other topics are discussed such as reasonable medical care necessitated by participation in a clinical trial, reasonable access to medical care and protocol violations that present unreasonable risks. The guidance document is available at: <http://www.fda.gov/cber/gdlns/studysub.pdf> Investigators conducting clinical investigations are encouraged to review the complete document. If you wish to provide written or electronic comments on the draft guidance they should be submitted by July 9, 2007.



IACUC Training Update:

The researchtraining.org website which hosted our online training for animal care and use has been discontinued. The training modules have been relocated to the AALAS Learning Library located at: <https://www.aalaslearninglibrary.org/> We will continue to use the site during this transition period until a final decision has been made regarding the use of alternative training providers. If you need access to this site and do not remember your password or are new staff and need a password, please contact the IACUC office at 460-6863 or email mdesv@usouthal.edu Other training materials can be obtained from the IACUC office as usual.

Articles on Research Ethics / Links of Interest

- "Truth and Consequences", **Science**, Vol. 313, no. 5791, pp. 1222-1226, September, 2006
(The impact on graduate students who accused their lab director of research misconduct.)
- "Cases of Mistaken Identity", **Science**, Vol. 315, no. 5814, pp. 928-931, February, 2007.
(Contaminated or Misidentified Cell Lines)
- Responsible Literature Searching, Source: Association of Health Science Libraries
(A instructional tool to assist researchers in the fundamentals of responsible literature searching for research practice). The module is available at: <http://www.hsls.pitt.edu/about/news/newsimages/rls.html>
- "HHS Inspector General to Reopen NIH Conflict-of-Interest Cases," **Committee on Energy and Commerce**, March 20, 2007
(The Inspector General of the DHHS says his office is reviewing the activities of 103 scientists who may have had links to pharmaceutical companies while they were employed at the National Institutes of Health, apparently resurrecting a conflict of interest inquiry that many thought was closed. These individuals were identified as part of the Trey Sunderland investigation. The IG said his office also is reviewing whether NIH is adequately monitoring potential conflicts of interest among its thousands of extramural grant recipients).
- "15 Misconduct Findings, 35 Cases Closed in 2006," **ORI Newsletter**, March 2007.
(The Office of Research Integrity is reporting that it made 15 research misconduct findings and closed 35 cases in 2006, the highest number of misconduct findings and closed cases since 1996. Exclusions or debarments were instituted in ten cases and administrative actions were taken against the remaining five researchers).

Newsletter archives are available through the Office of Research Compliance website at:
<http://www.southalabama.edu/com/research/>