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| Microbiology Packing and Shipping Policy for Courier Transport | |
| **Policy Statement** | Children’s Hospitals and Clinics of Minnesota complies with the U.S. Department of Transportation (DOT) regulations regarding the transport of patient specimens and culture isolates. |
| **Purpose** | This policy documents and provides guidance for the processes and procedures used to package and ship Microbiology Diagnostic Specimens, and culture plates between the Minneapolis and St Paul campuses and for courier transport of isolates to the Minnesota Department of Health. |
| **Responsibility** | All Microbiology staff and all Send-out staff must abide by the following regulations.   1. Proper classification of specimens 2. Proper packaging of specimens. 3. Proper labeling of specimens and packages. 4. Proper documentation of specimens for transport. 5. Proper training of staff that handle specimens. |
| Procedure |  |
| Training  and  Competency | 1. Federal regulations require that anyone who packages and ships a potentially dangerous material receive documented packaging and shipping training from an approved training provider at least every three years, or whenever the regulations have been revised. 2. The Children’s Hospitals and Clinics of Minnesota Microbiology staff and all send-out staff are required to successfully complete the MML Transporting Dangerous Goods online training every two years. |
| Intra-Campus Shipping |  |
| * Cooler transport   Diagnostic Specimens   * Gray Box Transport   Plated/Tube Bacteriology Cultures  Biological Substance  Category B  UN 3373 | **Diagnostic specimens** are patient specimens that are directly collected, including, but not limited to, excreta, secreta, blood and its components, tissue and tissue fluid swabs, transported for purposes such as research, diagnosis, investigational activities, disease treatment and prevention and shipped before amplification or propagation by culture techniques. A diagnostic specimen may consist of a patient swab in culture transport system, swab in viral transport media, and body fluid specimens in sterile containers, fecal specimens in preservative or in a sterile container.   1. All diagnostic specimens require triple packaging for shipment:    1. Primary receptacle—the specimen container.    2. Secondary packaging—the biohazard bag and absorbent DRIMOP.    3. Rigid outer packaging—the cooler. 2. Tracking sheets to document the transport of specimens must be included.   **Cultures** are the result of a process by which pathogens are intentionally propagated in order to generate high concentrations. As such, the risk of infection is increased if exposure occurs.  Patient culture plates can be classified as **Biologic substance --Category B UN3373**.  1. All culture specimens require triple packaging for shipment:   * 1. **If** the primary receptacle is —the Petri plate      1. **Then** the secondary packaging is —metal Petri plate can with cover. **If** there is empty space above the plates **use** enough fill material (paper towel) above the top plate to keep cultures from shifting position during transport.   2. **If** the primary receptacle is—a THIO, SEL or GN. Place tubes in a rack (tubes must be rubber banded together so they do not break in transport).      1. **Then** the secondary packaging is the plastic bag, the grey box liner, a leak proof barrier.      2. The bottom of the bag must contain enough absorbent material (DRIMOP) to soak up the entire contents of the gray box in case of a spill.      3. The bag must be closed securely.   3. Gram stain slides should be sent in a slide box, which is closed securely.   4. Rigid outer packaging—the gray box.   2. Tracking sheets to document the transport of specimens must be included. |
| MDH Shipping |  |
|  | MDH shipments must be packaged in the **Category B, Biological UN3373** containers or the **Category A Infectious UN2814** containers. These are provided by MDH and can be ordered by faxing in the MDH request form. These include the primary, secondary, rigid outer container and absorbent material and are labeled accordingly.  It is the responsibility of the lab staff to classify the specimen as **Category B** or **Category A** (see list below)  Refer to [MCVI 3.51 Packaging Category B](file:///G:\LAB\Microbiology\micro%20forms\CATEGORY%20A%20and%20B%20FORMS%20and%20Packaging\INFECTIOUS%20SUBSTANCES%20PACKING%20AND%20SHIPPING\MCVI%203.51%20Packaging%20Category%20B%20Specimens.docx) and [MCVI 3.52 Packaging Category A](file:///G:\LAB\Microbiology\micro%20forms\CATEGORY%20A%20and%20B%20FORMS%20and%20Packaging\INFECTIOUS%20SUBSTANCES%20PACKING%20AND%20SHIPPING\MCVI%203.52%20Packaging%20Category%20A%20Specimens.docx) for detailed instructions.   1. **Virology or micro isolates in tubes** 2. Primary receptacle = the patient culture tube in a biohazard bag with absorbent DRIMOP 3. The secondary packaging = the plastic can 4. Rigid outer packaging= cardboard mailing can 5. **Culture plates**   a. Primary receptacle = the Petri dish in a biohazard bag with absorbent DRIMOP  b. The secondary packaging = Tyvek envelope  c. Rigid outer packaging= cardboard mailer  According to MDH: “If the specimen or referred cx is not on the A list, it is Category B”. 4  List of examples of Category A, Infectious substances:   1. *Bacillus anthracis* (cultures only) 2. *Brucella abortus* (cultures only) 3. *Brucella melitensis* (cultures only) 4. *Brucella suis* (cultures only) 5. Burkholderia mallei - Pseudomonas mallei - Glanders (cultures only) 6. Burkholderia pseudomallei - *Pseudomonas pseudomallei* (cultures only) 7. *Chlamydia psittaci* - avian strains (cultures only) 8. *Clostridium botulinum* (cultures only) 9. *Coccidioides immitis* (cultures only) 10. *Coxiella burnetii* (cultures only) 11. Crimean-Congo hemorrhagic fever virus 12. Dengue virus (cultures only) 13. Eastern equine encephalitis virus (cultures only) 14. *Escherichia coli*, verotoxigenic (cultures only) 15. Ebola virus 16. Flexal virus 17. *Francisella tularensis* (cultures only) 18. Guanarito virus 19. Hantaan virus 20. Hantaviruses causing hantavirus pulmonary syndrome 21. Hendra virus 22. Hepatitis B virus (cultures only) 23. Herpes B virus (cultures only) 24. Human immunodeficiency virus (cultures only) 25. Highly pathogenic avian influenza virus (cultures only) 26. Japanese Encephalitis virus (cultures only) 27. Junin virus 28. Kyasanur Forest disease virus 29. Lassa virus 30. Machupo virus 31. Marburg virus 32. Monkeypox virus 33. *Mycobacterium tuberculosis* (cultures only) 34. Nipah virus 35. Omsk hemorrhagic fever virus 36. *Poliovirus* (cultures only) 37. Rabies virus 38. *Rickettsia prowazekii* (cultures only) 39. *Rickettsia rickettsii* (cultures only) 40. Rift Valley fever virus 41. *Russian spring-summer encephalitis* virus (cultures only) 42. Sabia virus 43. *Shigella dyseteriae type 1* (cultures only) 44. *Tick-borne encephalitis virus* (cultures only) 45. Variola virus 46. Venezuelan equine encephalitis virus 47. *West Nile virus* (cultures only)   *Yellow fever virus* (cultures only) |
| References: | 1. Transporting Dangerous Goods Training document. Mayo Medical Laboratories. Sept 2014 2. MDH Healthcare System Preparedness Program (HSPP) March 30,2012 3. MDH Public Health Emergency Preparedness (PHEP) March 30, 2012 4. Nathan Kendrick, MS, M (ASCP). State Laboratory Training Coordinator. MDH. Public Health Laboratory Division. Emergency Preparedness & Response Unit. |
| Appendices | Ebola Standard Operating Procedure (SOP): Laboratory - Specimen transport to MDH  <http://khan.childrensmn.org/Web/Switchboards/209269.pdf> |

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| **Historical Record** |  |  |  |  |
|  | **Version** | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** |
| 1 | Becky Carlson | 5/1/2012 | Initial Version |
| 1.1 | Becky Carlson | 12/21/2012 | Removed QC organism shipping info |
| 2 | Becky Carlson | 4/3/2015 | Re-numbered from MC 205 |
|  | 3 | Helen Stefan | 4/8/2015 | Expanded MDH shipping section, added link to Ebola PUI specimen shipping information on intranet |  |  |
| 4 | Susan DeMeyere | 10/13/2017 | Update logo and add hyperlink to MCVI 3.51 and 3.52. Change wording for tubes in secondary container. |
| **Archived by:** |  | **Archived Date:** |  |