# *Bordetella pertussis / parapertussis* PCR Specimen Handling and Storage

PURPOSE

* This procedure provides instructions for specimen acceptability, handling and storage
* Refer to the Laboratory Services web page for test specific patient preparation and specimen collection information.

## SAMPLE

1. Acceptable specimens and transport container

|  |  |  |  |
| --- | --- | --- | --- |
| Specimen type | **Specimen code** | **Volume** | **Transport Containers** |
| 1 Nasopharyngeal swab  | NP | 1 wire NP swab | * NP CultureSwab™ Rayon wire mini-tip swab in Liquid Stuart’s, green top
* NP CultureSwab™ Rayon wire mini-tip swab in Amies Charcoal, blue top
 |
| Nasal aspirate | NASP | 1 – 2 mL (0.5 ml minimum) | * Sterile, plastic leak proof container
 |
| Nasal washing | NW |
| Bronchoscopy  | BR |
| Bronchial Alveolar Lavage | BAL |
| Bronchial Aspirate | BASP |
| Bronchial Wash | BRW |

1. Unacceptable specimens: Calcium alginate swabs, nose swabs, sputum, throat swabs
2. Transport and Storage: For additional information refer to [Laboratory Services](http://khan.childrensmn.org/Communities/Lab.asp) web page

|  |  |
| --- | --- |
| Temperature | Sample Stability  |
| Room temperature |  |
| * Bronch specimens
 | * 4 hours
 |
| * NP swabs
 | * 5 days
 |
| * Nasal wash
 | * 5 days
 |
| Refrigerated , 2 - 8° C* Bronch specimens
* NP swabs
* Nasal apirates/washes
 | * 5 days
 |

## SAFETY CONSIDERATIONS

* Standard precautions. Refer to MB 2.02 Biohazard Containment
* Use of engineering controls: Refer to MB 3.01 Engineering Controls to Prevent Nucleic Acid Contamination

#### MATERIALS REQUIRED

|  |  |  |
| --- | --- | --- |
| **Equipment** | **Media** | **Supplies** |
| Refrigerator, 2 - 8° C | BBL CultureSwab™ Liquid Stuart’s | Nitrile gloves |
| Storage bin | BBL CultureSwab™ Amies Charcoal | 2.0 ml cryovials |
|  | Sterile , plastic leak proof container |  |

**PROCEDURE A:** Follow the activity below for sample handling

| Activity | Step | **Action** | **Related Doc** |
| --- | --- | --- | --- |
| ID  | 1 | Verify that the patient identification on the primary container corresponds to the accompanying order | MB 1.01 Specimen Management |
| Location: Microbiology | 2 | Receive sample in Sunquest and generate label* Sunquest location: MC
* Sunquest code: BORDP
 | Organizational policy 630.00 Laboratory Specimen Labeling |
|  | 3 | Confirm the name on the label is the same as the name on primary container |  |
|  | 4 | Affix LIS accession label to corresponding primary container |  |
| Quality | 4 | Evaluate the quality of the specimen. | MB 1.02 Specimen Rejection Criteria |
| Store | 5 | Store specimen refrigerated at 2 - 8° C  |  |
|  | 6 | Place specimen and label in molecular designated area |  |

**PROCEDURE B:** Follow the activity below for aliquoting samples and preventing cross-contamination

**Sample Aliquots**

|  |  |  |  |
| --- | --- | --- | --- |
| **Activity** | **Step** | **Action** | **Related Doc** |
|  | 1 | Sample identification of all aliquots must be traceable to the primary specimen  | Organizational policy 630.00 Laboratory Specimen Labeling |
| Identification of secondary container | 2 | Confirm the name and accession number on the aliquot label is the same as on the primary container |
|  | 3 | Affix LIS aliquot label with corresponding accession number on secondary container |
| Avoiding cross-contamination | 4 | Handle specimens to avoid cross contamination of primary sample and aliquots as follows:

|  |  |
| --- | --- |
| Step | Action |
| a | Deliver primary specimens unopened to the molecular laboratory when possible or perform the following steps |
| b | Properly label secondary container with patient aliquot label  |
| c | Verify name on primary and secondary container before transfer |
| d | Use sterile pipettes and technique when transferring samples |
| e | Aliquot one specimen at a time with only one tube open at a time |
| f | Never return the aliquot to the original container |

 | Refer to assay specific procedures for additional information |

**REFERENCES**

* + - 1. *B. pertussis/parapertussis* Clinical Verification and Validation Study performed at Children’s Hospitals and Clinics of MN 2015
1. Andrea J. Linscott, Section editor, *Specimen Collection, Transport, and Acceptability,* 2.1. InLynne S. Garcia (ed) *Clinical Microbiology Procedures Handbook,* Third edition2010, American Society for Microbiology, Washington, D.C.
2. J. Michael Miller, A guide to *Specimen Management in Clinical Microbiology*, 1999, ASM Press, 1325 Massachusetts Ave NW, Washington, DC

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| Historical Record |  |
|   | **Version** | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** |
|  | 1 | P. Ackerman | 1.23.16 | Initial Version |
|  | 2 | P. Ackerman | 07.19.16 | Reformatted for CMS upload |
|  | 3 | J. Laramie/M. Meyer | 08.21.18 | Biennial review: 08.06.2018 JL/MMUpdated sample type collection container – changed amies charcoal from green top to blue top |