

## Blanchard Valley Health System Laboratory Services

Blanchard Valley Hospital 1900 South Main Street Findlay, OH 45840

Bluffton Community Hospital 139 Garau Street, Bluffton, OH 45817

Armes Family Cancer Care Center 15990 Medical Drive S, Findlay, OH 45840

### Transportation of Laboratory Specimens (LTR27428)

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## Transportation of Laboratory Specimens

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### PRINCIPLE

A specimen is defined as any bodily substance taken from a person for the purpose of analysis, such as blood, urine, stool, tissue and fluid. Specimens can therefore pose a health risk to all staff having contact with them including laboratory couriers and laboratory employees.

### POLICY

All transport personnel must be trained in the proper safety and packaging procedures for specimens transported. They must be knowledgeable of the regulations for the transport of biohazardous specimens. All specimens must be handled in a manner in which the safety of the handler and the environment are protected while preserving the integrity of the specimens.

### PROCEDURE

#### **Specimen Preparation for Transportation**

1. All specimens must be placed into a primary container labeled with at least two patient identifiers. Primary containers include blood tubes, urine cups, formalin containers, blood culture bottles or any other suitable sealed container which safely contains the specimen for testing.
2. The specimen is then placed into a secondary leak proof container labeled biohazard. The purpose of the secondary container is to contain the specimen if the primary container breaks or leaks in transit to the laboratory. Secondary containers include small biohazard specimen bags, large red hospital designated biohazard bags or any other suitable leak proof container which has a biohazard label on it. Once the specimen has been sealed in a secondary container it may be handled without gloves.
3. Any paperwork which must accompany the specimen to the laboratory must be protected from contamination and separate from the primary specimen.
4. If specimens are held in a refrigerator or freezer prior to transport, that appliance must be labeled as containing a biohazard and be located in an area with restricted access.
5. When appropriate, the specimen is then placed into a third rigid container which is also a climate controlled environment. This helps to protect the integrity of the specimen until it reaches the laboratory.

#### **Transportation of Specimens Within the Hospital**

##### **Pneumatic Tube System**

Once the specimen is properly prepared for transport, it may be delivered to the laboratory for testing. The hospital wide pneumatic tube system may be used to send small specimens to the laboratory.

NOTE: The following specimens **should not be sent in the tube system**.

- Heavy specimens are NOT to be sent in the tube system.
- Specimens which have glass primary containers are NOT to be sent via the pneumatic tube system with one exception; blood culture bottles. The following

requirements must be followed when blood culture bottles are sent via the tube the system;

- A maximum of 2-3 blood culture bottles to be placed in one pneumatic tube at a time.
  - No other specimens should be transported within the same pneumatic tube as the blood culture bottles.
  - Each bottle should be individually placed in a biohazard bag and sealed completely.
  - The pneumatic tube must contain foam padding on each side of the tube. Using alternate materials to protect the bottles during transportation is not recommended.
- Specimens which may be compromised by the tube system and interfere with testing such as platelet function analysis, special coagulation testing, semen analysis, or irreplaceable specimens such as CSF, bone marrow, body tissue/parts. This is not an all inclusive list. The collection manual should be consulted if a specimen is in question or for any necessary special transport instructions.

#### **Outpatient Laboratory to the Main Laboratory**

Specimens may be transported from the outpatient laboratory to the main laboratory using the pneumatic tube system. This is often necessary when transporting STAT specimens or a small quantity of specimens to the main laboratory. When transporting a larger portion of samples from the outpatient laboratory to the main laboratory, the secondary container will consist of a large plastic receptacle which holds the primary containers. Care should be taken to keep laboratory specimen paperwork separate from the primary specimens and free of contamination.

#### **Transportation of Specimens Outside the Hospital**

All specimens being transported to the laboratory from outside the hospital must be properly prepared for transportation and also must have a biohazard label so all workers will be alerted to follow Universal Precautions. In order to protect specimen integrity, special attention must be taken to protect the specimens from temperature fluctuations by using a rigid third container (such as a cooler).

Documentation of laboratory courier training is accomplished using the Courier Service Hazardous Materials Documentation form. The completed forms are kept electronically.

#### **Accidents or Spills**

In case of an accident or spill, the laboratory should be notified immediately. Laboratory personnel will then take any necessary action to contain the spill or notify the appropriate officials.

#### **Receiving Specimens in the Main Laboratory**

All specimens should be examined for visual contamination or breakage before removal from the secondary container. Gloves are to be worn to remove specimens from the secondary container and for all manipulations of the primary container.

#### **REFERENCES**

Department of Transportation. Research and Special Programs Administration. Hazardous Materials General Requirements for packaging and packages 173.24.

Beckala HR. Regulations for packaging and shipping laboratory specimens. *Lab Med.* 1999;30:663-667.

