University of California, San Francisco – Department of Laboratory Medicine
Zuckerberg San Francisco General Hospital and Trauma Center
1001 Potrero Avenue, San Francisco, CA 94110

Clinical Laboratory – Barbara Haller, MD, PhD, Laboratory Director

TRANSPORT OF LABORATORY SPECIMENS USING THE PNEUMATIC TUBE SYSTEM

I. PRINCIPLE:

A. The Pneumatic Tube System (PTS) is computer-controlled and automated to provide efficient, rapid and secure interdepartmental transport of approved items, including blood and urine specimens, supplies, and documents (such as laboratory requisitions).

B. This procedure provides guidelines for optimal use of the system in the Clinical Laboratory.

II. PROCEDURE:

A. Specimens must be placed in a zip lock biohazard bag with the requisition in the outside pocket. All specimens must be **DOUBLE** bagged.

B. Paperwork sent by itself does not have to be contained in a zip lock biohazard bag.

C. Make sure that all specimen caps/lids (especially on urine containers) are securely tightened and specimen bags are completely contained inside the carrier.

NOTE: Even one small corner of **plastic or any paper** protruding from the pneumatic tube carrier (PT) **WILL** cause the system to shut down.

D. Make sure latches at both ends of the carrier are securely fastened before sending the carrier.

E. Only items listed in Appendix A can be sent through the pneumatic tube system.

F. PTS Operating Instructions:

SENDING PT CARRIER

a. The message “STATION READY” indicates station is ready for sending a carrier.
b. Place items to be sent in an empty carrier.
c. Close carrier and be sure that both latches are engaged.
d. Place carrier in dispatcher.
e. Select destination address and enter this number using the keypad.
f. Press SEND.

RECEIVING PT CARRIER

a. Remove PT carriers promptly as they arrive.
b. If PT carriers are damaged, remove and call Facilities at x68522 to return damaged PT carrier and request for replacement.

III. DOWNTIME:

A. Scheduled: The tube system may be down at scheduled times for preventive maintenance and/or decontamination.

a. Facilities will notify users prior to a scheduled downtime.
b. Couriers will be used for transport of specimens during downtime.

B. Unscheduled: The system may be shut down due to unexpected system problems.

a. Immediately report system problems to Facilities at x68522.
b. Couriers will be used for transport of specimens during downtime.
c. Any extended downtime (over 1 hour) must be reported to the Administrator On Duty (AOD).

IV. CLEAN UP:

A. Use gloves and standard precautions when removing specimens from carriers.

B. On approval of a laboratory supervisor, leaking specimens will be discarded into the biohazard waste containers. Notify nursing unit to recollect the specimen.

NOTE: If the specimen is irreplaceable and must be processed, gloves must be worn. The inner and outside of the container must be cleaned with a 1:16 dilution of sodium hypochlorite (household bleach) and the requisition, if contaminated, must be rewritten.

C. Discard biohazardous zip lock bag and its contents in a red biohazard garbage container. If there is broken glass, place contents in a sharps container.

D. Air-dry the PT container completely before placing it back into use.

V. DISTRIBUTION:

A. Laboratory Administration Policy and Procedure Manual
B. Lab Director approval is documented in https://www.medialab.com

APPENDIX A

Clinical Laboratory Pneumatic Tube Stations

Specimen Type	PT Station
Specimens for Microbiology Testing with Paper Requisitions	23
Blood Specimens for General Laboratory Testing	21
Blood Specimens for Blood Bank with Paper Requisitions	100

SPECIMENS that **CAN** be sent through the pneumatic tube include:

- Most blood specimens (except for specimens for PTH, specimens on ice and the specimens below.)
- Only urine specimens collected in a special urine collection tube (example below):

- Blood cultures except for AFB/Fungal (see below) - send to PT station #23
- Sputum in CUPS except those collected in ET tubes (see below) - send to PT station #23
- Swabs – send to PT station #23
- Lavender specimen for Malaria- send immediately to PT station #23
- Vaginal Wet Mount in the appropriate collection tube- send to PT station #21

SPECIMENS that **CANNOT** be sent through the pneumatic tube include:

- Respiratory specimens in viral transport medium (i.e., specimen for CoVid19 or FluA/B testing, etc.)
- Urine specimens in **Urine CUPS**
- Any specimens **ON ICE**
- Any specimens in an endotracheal tube (ET)
- Any specimens transported in a syringe
- Any specimens requiring special handling; e.g., kept at 37°C.
- Any samples in pediatric bullets, i.e. infant heel sticks
- Blood gases/ Co-ox tests
- AFB/Fungal blood cultures (collected in yellow **glass** SPS tubes)
- Stool specimens
- Body fluids (CSF, synovial, pleural, peritoneal, pericardial, gastric and ascitic fluids, aspirates, bronchoalveolar lavage, washes, drainage, etc.)
- Blood specimens from a difficult stick