

SASWH acknowledges the Roy Romanow Provincial Laboratory for providing these scenarios.

### **Shipping Class 6.2 Diagnostic Samples**

For the following shipping scenarios, participants would explain:

- Classification (Category A, Category B or Exempt Human Specimen)
- Packaging required
- Labelling
- Documentation required

Scenario 1-5 are for ground shipments; Scenario 6-8 are for air shipments.

#### **Scenario 1:**

You have received an order to collect a specimen for a Viral Load for Human Immunodeficiency Virus (HIV) to be shipped to Roy Romanow Laboratory in Regina from your laboratory by ground/road. Specimen Handling Note: Specimens for Viral Load for HIV are frozen for transport.

#### **Scenario 1 Answers:**

**Classification:** Category B

**Labelling:** UN3373 Biological Substance, Category B

**Packaging:** Type P650 packaging (insulated certified packaging) and shipped on dry ice. Do not seal Styrofoam layer to ensure carbon dioxide gas can release as the dry ice sublimates.

**TDG Shipping Document:** Not Required

*Rationale: We have "reason to believe" that a viral load as a diagnostic sample contains HIV since viral load testing measures the amount of the virus.*

*HIV is listed on Appendix 3: guide to Category A and Category B Assignment; as Category A (Item 12 under UN2814 Virus) however this is a patient sample which can be shipped as a Category B under Part 2 Classification: 2.36 Infectious Substances (2).*

#### **Scenario 2:**

A physician has ordered a Prenatal Screen which consists of Syphilis IgG, Rubella IgG, Hepatitis B surface antigen, Hepatitis C antibody and HIV Antibody/Antigen combo for shipment by ground to RRPL. Specimen Handling Note: all samples are shipped at ambient temperature.

#### **Scenario 2 Answers:**

**Classification:** Exempt

**Labelling:** Exempt Human Specimen

**Packaging:** Packaging consisting of a leak-proof secondary container and a rigid outer container.

**TDG Shipping Document:** Exempt

*Rationale: Prenatal Screens are ordered on all expecting mothers as a screen for infectious diseases that could potentially affect their baby. Since this is a screen it is sent as an exempt human specimen unless there is a "reason to believe" that the patient may have an infectious disease.*

## TDG 6.2 - Infectious Substances - Scenarios for Ground and Air Shipments

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### Scenario 3:

The Microbiology laboratory has asked you to ship a culture of Escherichia coli verotoxigenic (ETEC) by ground to Roy Romanow Provincial Laboratory.

### Scenario 3 Answers:

**Classification:** Category A

**Labelling:** UN2814 Infectious Substance, Affecting Humans

**Packaging:** Type P620

**TDG Shipping Document:** Yes

*Rationale: E.coli verotoxigenic is found in Appendix 3: UN2814 Bacteria item (8). Bacteria are always shipped as cultures. The shipping document must also include the technical name in parenthesis as Escherichia coli verotoxigenic – ETEC since there are other forms of Escherichia coli which ship as Category B: see Appendix 3 UN3373 Bacteria item (41).*

### Scenario 4:

You are shipping samples from a patient who is a known positive for Mycobacterium tuberculosis for further testing at Roy Romanow Provincial Laboratory. Explain how the sample is shipped by ground.

### Scenario 4 Answers:

**Classification:** Category B

**Labelling:** UN3373 Biological Substance, Category B

**Packaging:** Type P650

**TDG Shipping Document:** No - Exempt

*Rationale: Mycobacterium tuberculosis (TB) as a culture is a Category A in Appendix 3: item (10), however, this is a patient sample therefore the risk is lower and it can be shipped as a Category B.*

### Scenario 5:

You are shipping blood from a remote collection site to St. Paul's Hospital Specimen Management Centre by ground. The tests are a CBC, Urea, Creatinine and Electrolytes.

### Scenario 5 Answers:

**Classification:** Exempt

**Labelling:** Exempt Human Specimen

**Packaging:** Packaging consisting of a leak-proof secondary container and a rigid outer container.

**TDG Shipping Document:** Exempt – None

*Rationale: The testing ordered is exempt since they are diagnostic samples that measure a patient's health rather than the presence of an infectious disease. However, if a test for an infectious disease is collected at the same time (e.g. HIV Viral Load) then the diagnostic samples also need to be shipped as Class 6.2 (HIV Viral Load = Category B – see scenario #1).*

## TDG 6.2 - Infectious Substances - Scenarios for Ground and Air Shipments

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### Scenario 6:

Mycology is required to ship a fungal culture of *Coccidioides immitis* to Edmonton for verification by air. The shipment is ambient.

### Scenario 6 Answers:

**Classification:** Category A

**Labelling:** UN2814 Infectious Substance, Affecting Humans

**Packaging:** Type P620

**TDG Shipping Document:** Shipper's Declaration for Air Shipments

*Rationale: Coccidioides immitis is a dangerous dimorphic fungi that is listed in Appendix 3: UN2814 Bacteria as item (6). Shipments by air require a Shipper's Declaration (red hashed border) and the Packing Instruction: PI 620 and the technical name must be included on the document only.*

### Scenario 7:

The physician has order a specialized testing for Hepatitis C NS3 NS5A NS5B which is performed at the BC Centre for Excellence in HIV/Aids located in Vancouver, British Columbia. The collection and shipping instructions are included on the requisition and state the shipment is to be shipped frozen on dry ice according to IATA Dangerous Goods Regulations.

### Scenario 7 Answers:

**Classification:** Exempt – testing

**Labeling:** UN3373 Biological Substance, Category B and Class 9 label and UN1845 for Dry Ice; include the weight of the dry ice.

**Packaging:** Type P650 – must follow Packing Instruction 650 in IATA Dangerous Goods Regulations.

**TDG Shipping Document:** None – include dry ice and amount on air waybill and check off Shipper's Declaration NOT Required.

*Rationale: Hepatitis C in a diagnostic sample may be classified as Category B therefore a Shipper's Declaration is not required. Dry Ice used as a refrigerant does not require a Shipper's Declaration however the shipment does need to be labeled and packaged appropriately.*

### Scenario 8:

Testing has been ordered for Herpes B virus after a researcher had been exposed to saliva from a Macaque Monkey. Specimens have been collected from both the researcher and the monkey for investigation. The shipment will go by air to National Microbiology Laboratory in Winnipeg by air and the shipment is ambient.

### Scenario 8 Answers:

**Classification:** Category A

**Labelling:** UN2814 Infectious Substance, Affecting Humans

**Packaging:** Type P620, following Packing Instruction 620 in the IATA Dangerous Goods Regulations.

**TDG Shipping Document:** Shipper's Declaration

**NOTE:** This organism requires an ERAP activation prior to shipment. The ERAP number must be indicated on the Shipper's Declaration.

*Rationale: Herpes B virus is a highly infectious Risk Group 4 virus that requires the activation of an Emergency Assistance Response Plan prior to the shipment taking place. Activation of ERAP ensures that there are strategies in place in the case of a spill or theft and that the appropriate authorities are notified in these cases.*