Introduction
Infectious Substances Shipping & Terminologies

2020

Overview

- Introduction
- Terms Used for Shipping
- Classification of Infectious Substances
- Packaging of Infectious Substances

Who regulates the transport of infectious substances?

Shipping Regulations

- United Nations (UN) - Committee of Experts (UNCETDG)
- Different transport modes (air, sea, rail, road)
- International Civil Aviation Organization (ICAO)
- International Air Transport Association (IATA)
- International Maritime Organization (IMO)
- Universal Postal Union (UPU)
- Others (ADR/RID)
- Compliance with national and international regulations

Does someone have to be IATA-trained to ship infectious substances?

Training to Ship Infectious Substances

- Individuals must be trained
- Individuals do not have to be IATA-trained
- Partnering with IATA and others (ICAO, UPU, etc.) for a global solution
- IATA focuses on air transport
- Other modes must be considered
- Follow national and international regulations (when appropriate)

Why is this training important?

Background

- Global impact (safety of our communities)
- Training is a requirement (international and national regulations)
- Shipping consistency with other countries and modes
- Improper packaging will not be accepted
- Properly packaging and shipping is a skill
- This training course is recognized by IATA and ICAO

What are the risks of improper packaging and shipping?

Improper Packaging and Shipping

- Exposure to infectious substances
- Failed or delayed package delivery
- Inability to find a courier/carrier
- Panic in case of incident or accident
- Shipments stopped at customs
- Prosecution and/or civil penalties

What are the benefits of proper packaging and shipping?

Proper Packaging and Shipping

- Protection of staff, public and environment
- Timely package delivery
- Increased ability to find a courier/carrier
- Emergency response in place (if something happens)
- Compliance with national and international regulations

What are dangerous goods?

Dangerous Goods

- Dangerous goods pose a risk during transport
- There are nine classes of dangerous goods
- Three are important to shippers of infectious substances
  - Class 3: Flammable liquids
  - **Class 6: Toxic and infectious substances**
  - Class 9: Miscellaneous dangerous goods

What are infectious substances?

Infectious Substances (Class 6.2)

- Under the dangerous goods classification – class 6.2
- Class 6.2 addresses:

1. Infectious substances (Category A)
2. Biological substances (Category B)
3. Biological products
4. Genetically modified microorganisms and organisms
5. Medical and clinical waste
6. Infected live animals
7. Exempt human/animal patient specimens
8. Other exemptions

Category A – Infectious Substances

An infectious substance which is transported in a form that, when exposure to it occurs, is capable of causing permanent disability, life-threatening or fatal disease in otherwise healthy humans or animals.

Category B – Biological Substances

An infectious substance which does not meet the criteria for inclusion in Category A and has not been determined by a medical professional to have a minimal likelihood that pathogens are present.

What is the difference between cultures and patient specimens?

Cultures and Patient Specimens

- Cultures are incubated samples (with purpose of multiplying pathogens)
- Patient specimens are collected directly from humans/animals
- These differences are important for the classification of infectious substances
- This classification will affect the choice of packaging

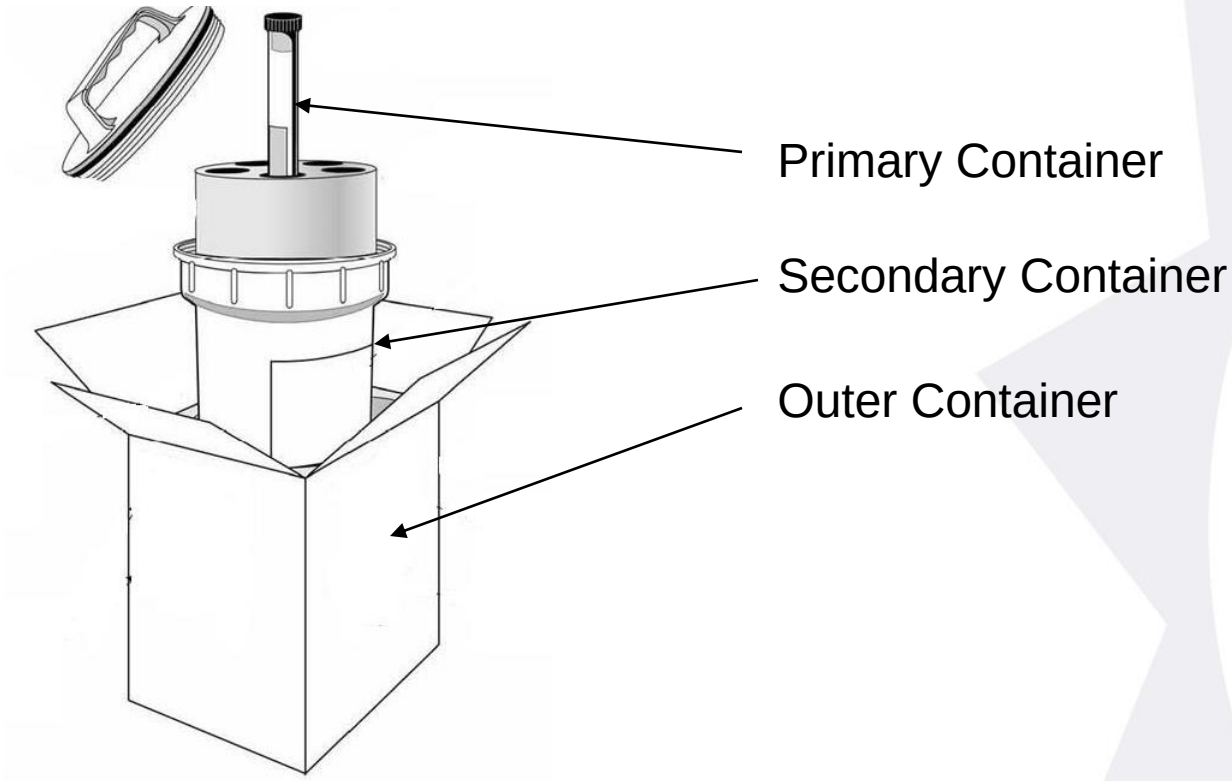
What are some terms you have heard related to packaging of infectious substances?

Packaging Terms

- Triple packaging
- Primary, secondary and outer containers
- Packing Instruction 620 (PI620)
- Packing Instruction 650 (PI650)
- UN approved packaging
- Overpacks

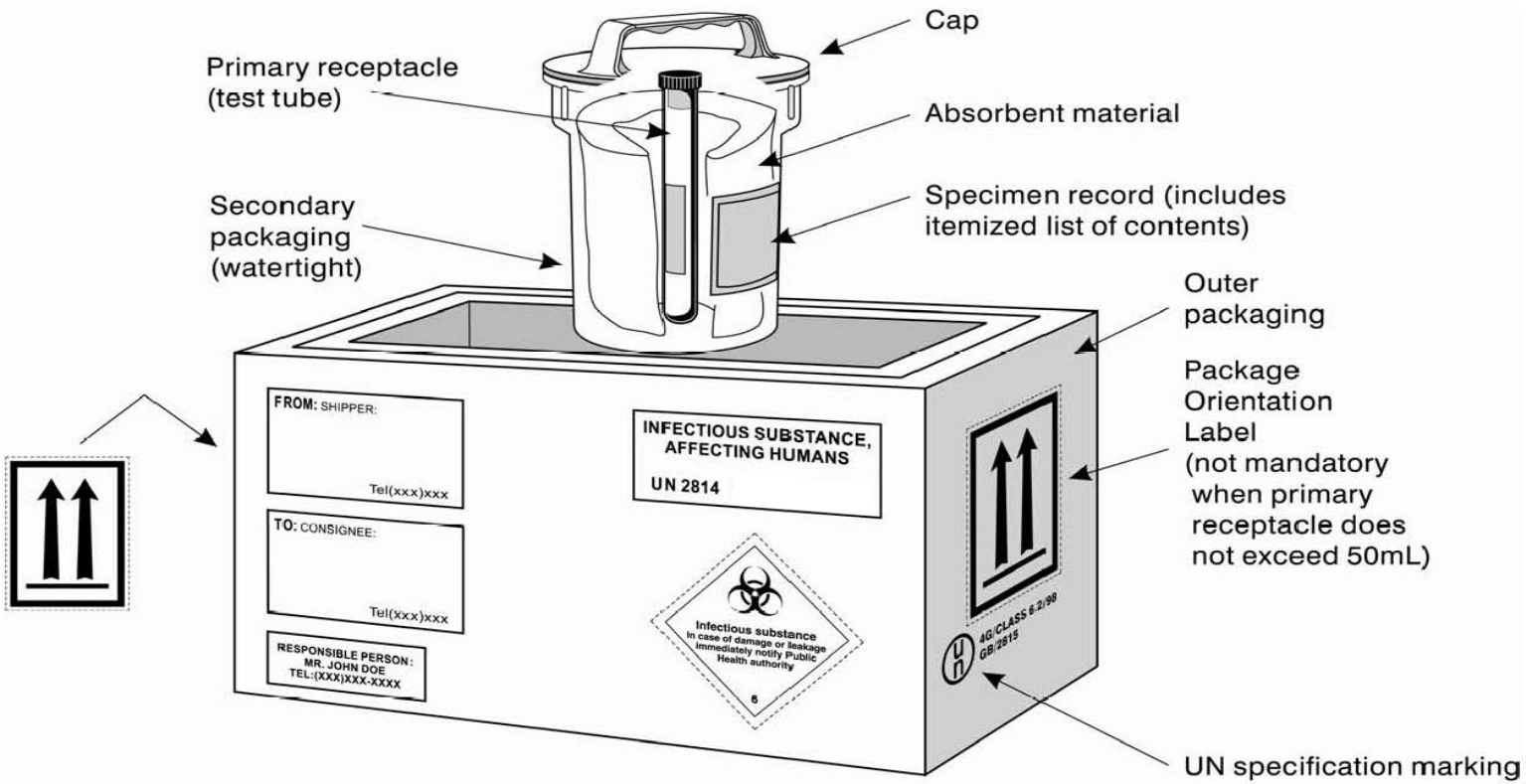
Triple Packaging

(primary, secondary, and outer containers)



Packing Instruction 620 (PI620)

This packaging is used for Category A infectious substances



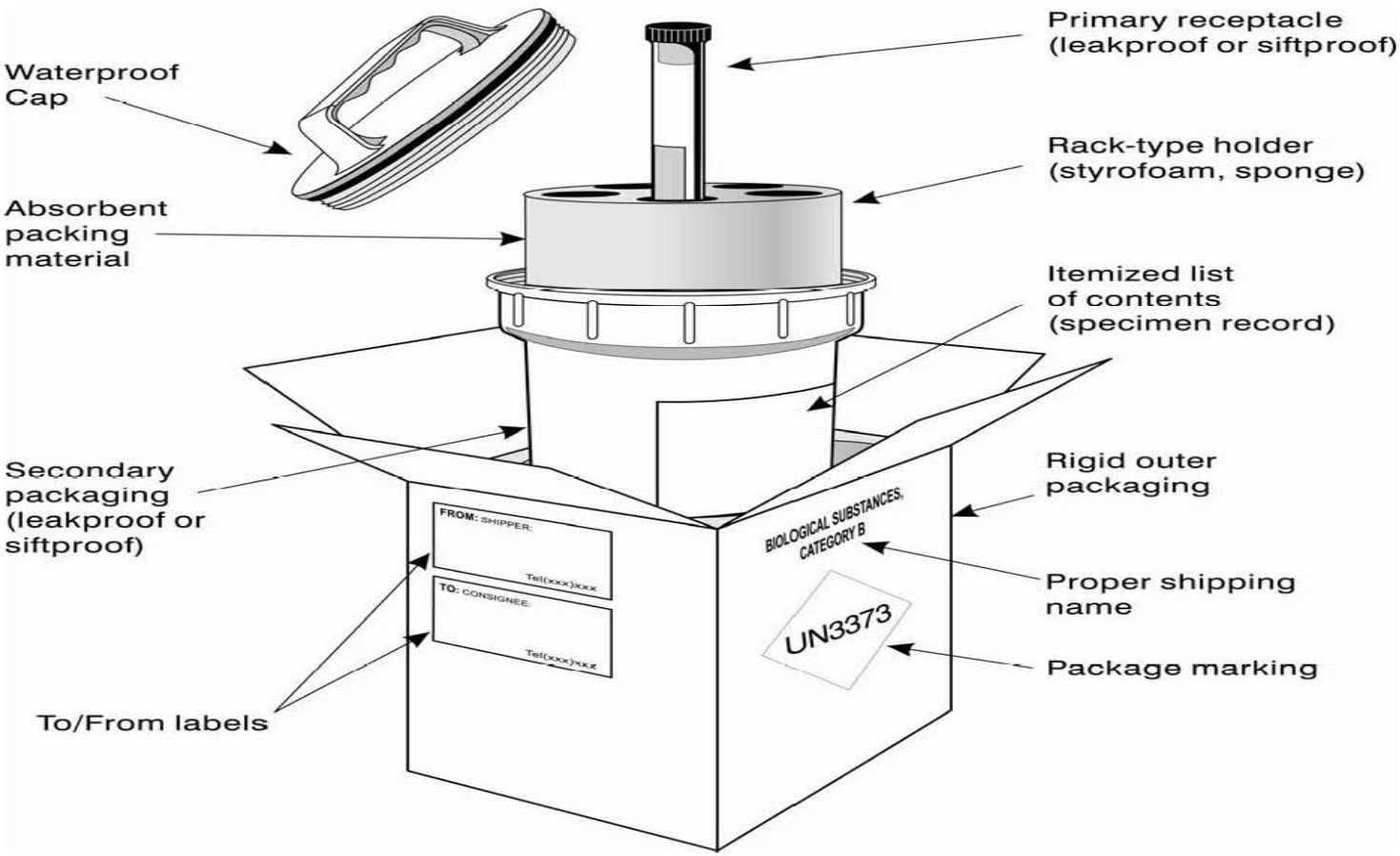
UN Specification Marking

This symbol means the packaging has passed a series of tests.
UN approved packaging is required for PI620.

4G/CLASS 6.2/05
GB/2470

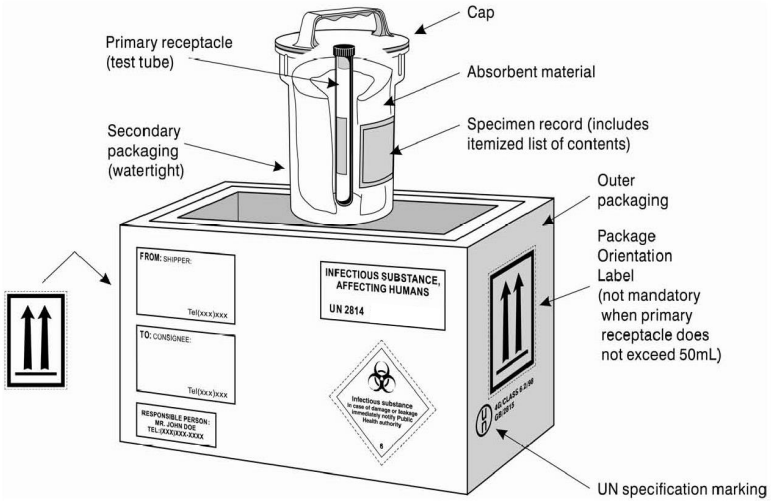
Packing Instruction 650 (PI650)

This packaging is used for Category B biological materials



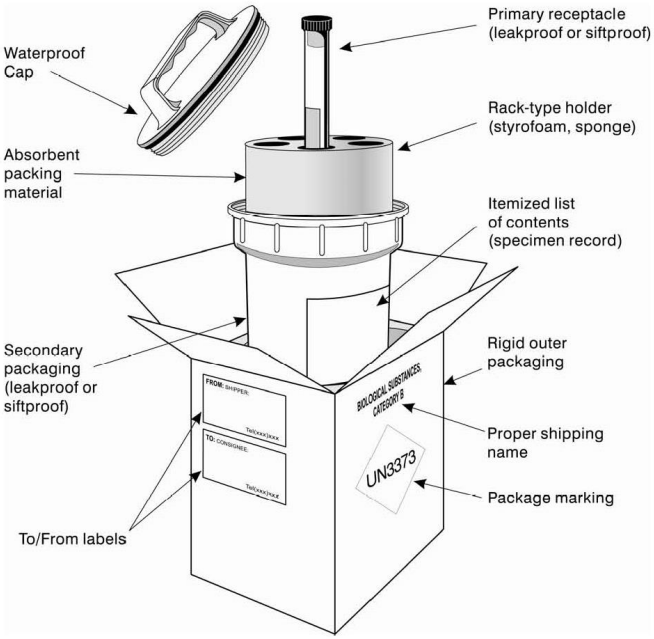
Exercise I
Differences between PI620 and PI650

Exercise I: PI620 vs. PI650



PI620
Category A

PI650
Category B



Exercise I: PI620 vs. PI650

Please identify three features found in PI620 and in PI650. Then compare the two packages and identify three differences between the two packages.

PI620	PI650	Differences

Acknowledgement

- World Health Organization- Shippers programme

Questions and Comments