Laboratory Management (Laboratory Safety; Biosafety etc.)

27 Jan (Fri.). 2017 14:00〜

Cases with laboratory accident, near miss, and incident in your (or other) lab

Non-disclosures	Name	Case	Background/factors	Action taken and the outcome	Potential hazards	Comments
Afghanistan (1)	1: VDPV2 isolates lost.	2 vials of VDPV2 isolate lost when inventory has done for 2017 it revealed, that two vials of VDPV2 isolates are not available.	Virology II – NIID of Japan.	Inventory repeated. Case Reported to the NIID BS & BS officer and NIID director Director said appropriate action must be taken. Cameras also reviewed. No one stolen or discarded the isolates vials recently. Finally one of the scientists remembered that, He discarded the isolates before inventory. Appropriate inventory system must be applied.	Sometimes such mismanagements can make numerous problems especially for intentional release of infections. As everyone knows better such pathogens can spread to many people easily.	It indicates administrative problem because there was improper documentation. For each action or activity all the steps must be recorded. Proper inventory and existence of accountability can easily solve these issues and can prevent facility from its occurring.
	2: Anthrax detected in one of Lab scientists.	In one of vaccine production laboratories one of the scientists diagnosed with	Vaccine preparation department of CVDRL – Kabul, AFG.	When he came to the clinic for his hand wound, the doctor advised him wound C/S, after few days it diagnosed, that his hand wound caused by bacillus Anthraces. When doctor investigated he found, that the	Infected of a scientist. Chance of transmission to the other people.	Unauthorized access. Lack of awareness of lab scientist from characteristics of

		Anthrax in his hand.		patient works in a BSL II facility on vaccine strain of Bacillus Anthraces. Investigations found, that he went to a BSL III lab of Pathogenic Anthrax diagnosis to meet his friend. There he has just helped him, in labeling of samples. He first wiped the samples well with 70% ethanol, but he has not donned gloves.		pathogen that he works on. No gloves it means he does not know GLWP. Training on GLWP, BS & BS must be conducted. SOP must be revised.
Afghanistan (2)	Diphteria	inficuse diphteria culture plates broken in the room surface	NPHL Microbiolgy Deparment	Room closed Door closed sign attach to the bacteriology Lab main door	case reported to biosafty and biosecurty officer Cleaning proceduer done successfuly	Selected PEP and SOP used
	fire accident	autocluve electericty cable fire	NPHL Virolgy deportment	Alarm activeted Case reported to the biosafty and biosecurty afficer by telephone Fire Extenguisher used Fire coverd	Spreading to other sections	SOP used
Indonesia	Lights off	Freezer thaw	Environment and public health laboratory	SOP of the electric function established	Specimen thawing	
	Container Burst Accident	Dry ice in the container	Virology laboratory, NIHRD	Guideline established SOP arranged	Injury staff, destroyed equipment, leakage of the specimen	

Kenya (1)	Loose electrical extension cable accident.	Lab staff carrying specimens on a tray from reception to lab for processing.	TB Central reference lab.	SOP established for specimen handling. CME conducted on safe spill management. Introduced break proof (plastic) containers. All electrical cables fitted on wall.	leakage of infectious material.	
Kenya (2)	Blood sample fell on laboratory floor.	Blood sample of suspected measles case was received in the lab packaged in a syringe inside a cool box carrier.	Suspected cases of measles in Kenya are mostly shipped from the health facilities to national measles lab at KEMRI, Kenya through courier service.	• Local disease surveillance officer and hospital personnel were contacted and informed of the incident. They were asked to ensure proper packaging and transportation of blood samples and other clinical samples to the lab. • The disease surveillance officer was asked to guide the health workers within his locality on the proper way of packaging and shipment of blood specimen. • Emphasis on proper sample packaging and shipment during disease surveillance review meeting at national level. • Continued onsite trainings on sample collection packaging and transportation at local levels .	•Blood specimen transported in syringe has a potential hazard of the cool box falling on the way and the syringe may then fall and injure handler. • Again, on arrival to the laboratory the blood sample in a syringe poses a great risk of injury to the laboratory personnel while handling it.	Blood samples should be transported in proper tubes and the transportation box properly sealed in order to prevent potential risk of the syringe injury to people handling the sample during transportation or to the laboratory personnel.
Pakistan (1)	Fire	Spirit lamp fell down on working bench	Microbiology Research laboratory QAU, Islamabad	Urgently fire extinguisher was used to fight fire, SOPS were applied and arrangements were made to prevent any such mishap in future	Injury of students working in lab, lab wares were damaged and samples were burnt	Preventory measures should always be strictly observed to avoid any accidents in

						labs
Pakistan (2)	Hot water	Autoclave cage was drooped	At the autoclave room of virology department,	SOP established to handle the autoclave	First aid was given to the minor injured person, work time line delayed	Told about safety measures at early stages
Philippines	Cryobox Burst Accident	Dry ice inside the cryobox	Annex I - Virology Department, RITM	Incident report submitted SOP on proper handling of Liquid Nitrogen tank Re-orientation of proper revival, utilizing and handling of Liquid Nitrogen Tank	Injury of staffs, leakage of biological material	Accomplished
	Slight Burnt Accident	Opening the -80 freezer using latex gloves rather than cryogloves	Biobank facility - RITM	Incident report submitted Dedicated cryogloves in placed Availability of the first-aid kit SOP on Proper handling of equipments like freezer	Major injury of staffs	Accomplished
Vietnam (1)	Breakage of glass bottle	Glass bottle in minus freezer	Rabies virus lab	Chloramine disinfection	Leakage of infectious rabies vaccine strains, Possible Injury to staff upon clean-up	It's lucky that all lab staff were vaccinated with Rabies vaccine
	Miss the biologicals	Rotavirus primer sent by WHO missing in freezer	Enterovirus Lab	Inventory check up	Loss of important reagents for molecular testing; quarrels among staff	Will be further discussed as it's complicated!
Vietnam (2)	Staff	Cell container explosion	Respiratory lab	SOP available Training	Infection Injured from the debris Chemical stick the skin	Following the SOP