REMESA
Mediterranean Animal Health Network

RELABSA workshop: implementation of biosecurity and biosafety measures in laboratories

Atelier RELABSA : mise en œuvre des mesures de biosécurité dans les laboratoires

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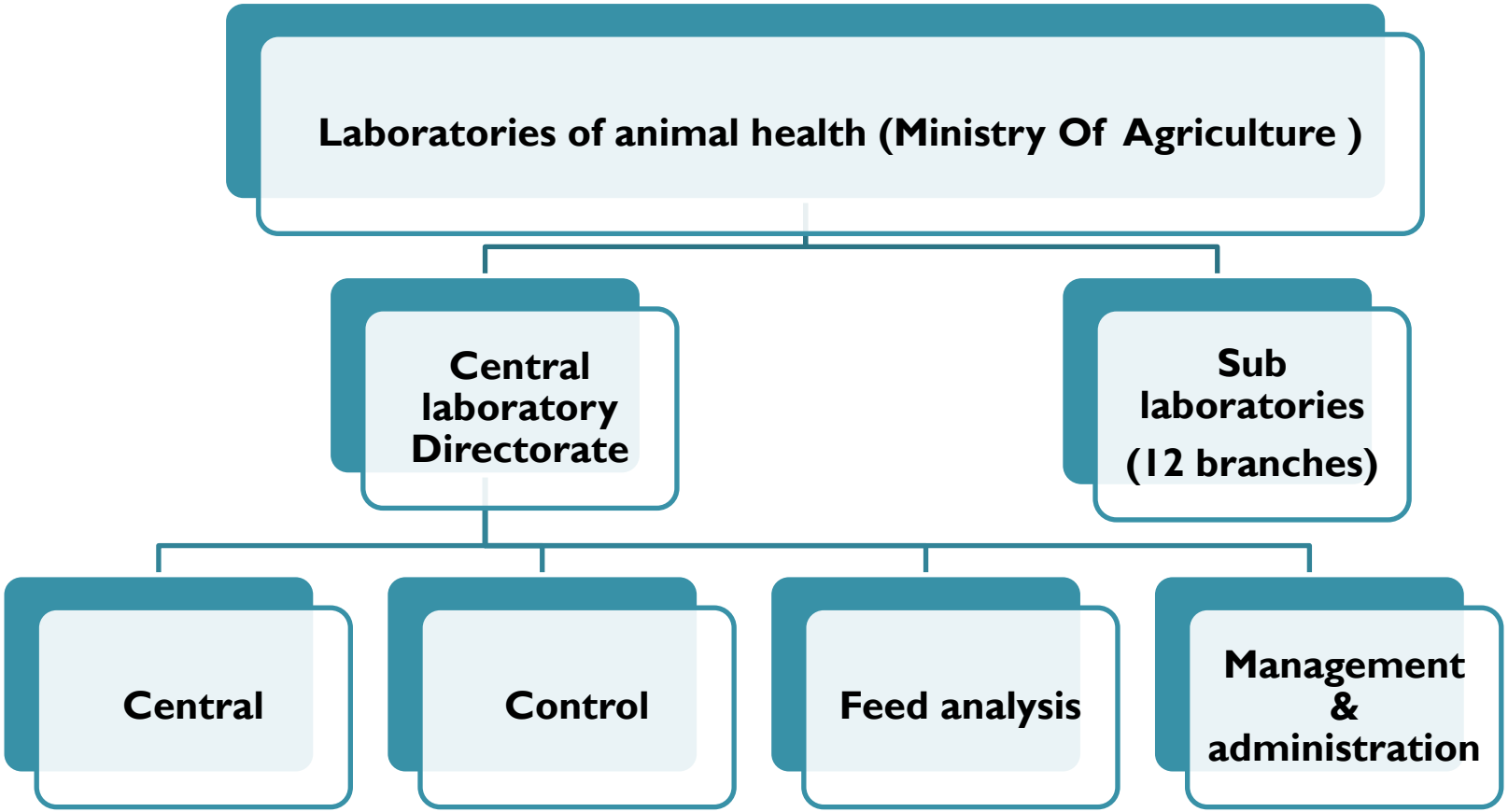
Structure Of Laboratories



Central Section

- Pathology unit (sample collection & necropsy of dead animals).
- Parasitological unit (Blood smear, fecal smear, serology).
- Bacteriology unit (Bacterial culture, sensitivity test, fungal isolation, serology).
- Bio-chemistry unit (blood film analysis).
- Virology unit (HI, ELISA, PCR).

Quality Section

- Drug analysis unit.
- Vaccine analysis unit.
- Food and feed analysis unit.

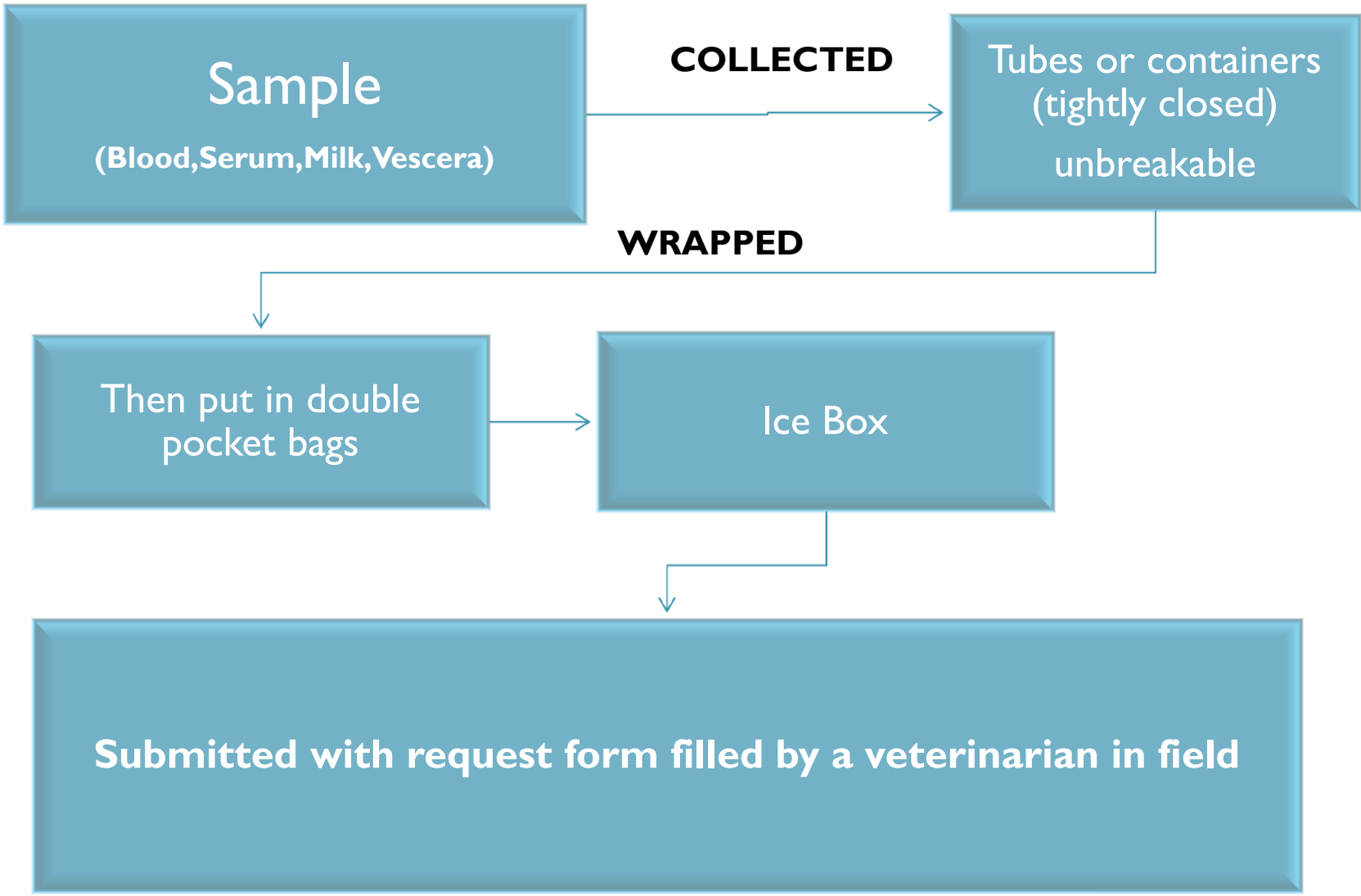
Feed Analysis Section

- Feed analysis Unit (Physical & Chemical).
- Aflatoxin Analysis Unit.

Management And Administration

- Media Preparation Unit.
- Washing And Sterilizing Unit.
- Management Unit (Training).

TRANSPORATION OF THE SAMPLES

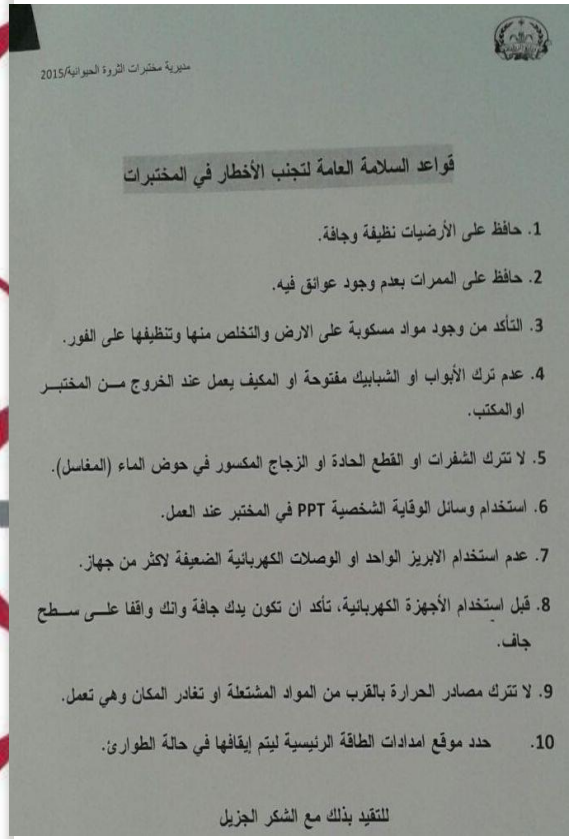


Biorisk Management:

- Laboratory Design.
- Safety Equipment.
- Decontamination & Waste management.
- Security.

Laboratory Design

- Signs are posted to notify workers and other entering the laboratory of potential hazard.


مديرية مختبرات الثروة الحيوانية/2015

قواعد السلامة العامة لتجنب الأخطار في المختبرات

1. حافظ على الأرضيات نظيفة وجافة.
2. حافظ على الممرات بعدم وجود عوائق فيه.
3. التأكد من وجود مواد مسكوبة على الارض والتخلص منها وتنظيفها على الفور.
4. عدم ترك الأبواب او الشبابيك مفتوحة او المكيف يعمل عند الخروج من المختبر او المكتب.
5. لا تترك الشفرات او القطع الحادة او الزجاج المكسور في حوض الماء (المغاسل).
6. استخدام وسائل الوقاية الشخصية PPT في المختبر عند العمل.
7. عدم استخدام الابريز الواحد او الوصلات الكهربائية الضعيفة لاكثر من جهاز.
8. قبل استخدام الأجهزة الكهربائية، تأكد ان تكون يدك جافة وانك واقفا على سطح جاف.
9. لا تترك مصادر الحرارة بالقرب من المواد المشتعلة او تغادر المكان وهي تعمل.
10. حدد موقع امدادات الطاقة الرئيسية ليتم إيقافها في حالة الطوارئ.

للتقيد بذلك مع الشكر الجزيل

- Sign shows each laboratory purpose.

- Biohazard labels are posted on equipment used for manipulation, storage, or transport of infectious material.

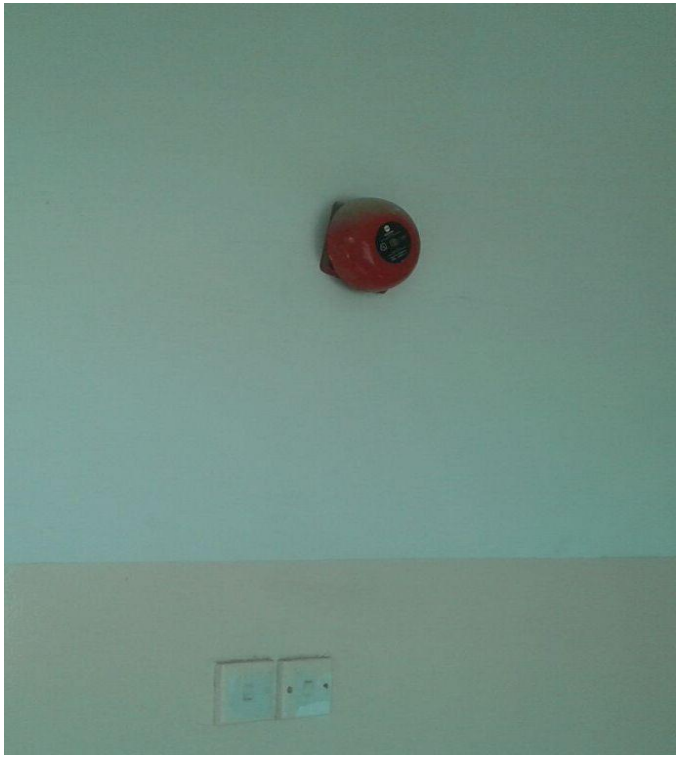
- Bench-tops are waterproof and resistant to acid, alkaline, organic solvent and heat.
- There is adequate storage space available and appropriately used.
- Facility and equipment are maintained regularly.
- Doors available to limit access control to laboratory areas.
- There is a sink available for hand washing.
- There is no eyewash sink available.
- The qualifications, experience and aptitudes relating to biorisk not considered as part of the recruitment process.
- There is no quality control &biorisk officer in the lab.

Safety Equipment

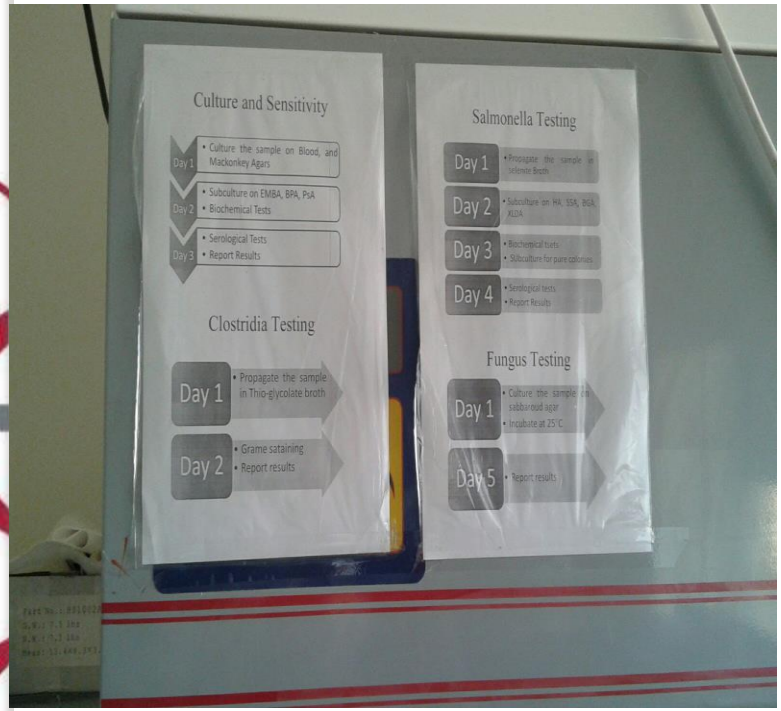
- There are Biosafety cabinets available for the manipulation of infectious material (BSC class 2 and 3).

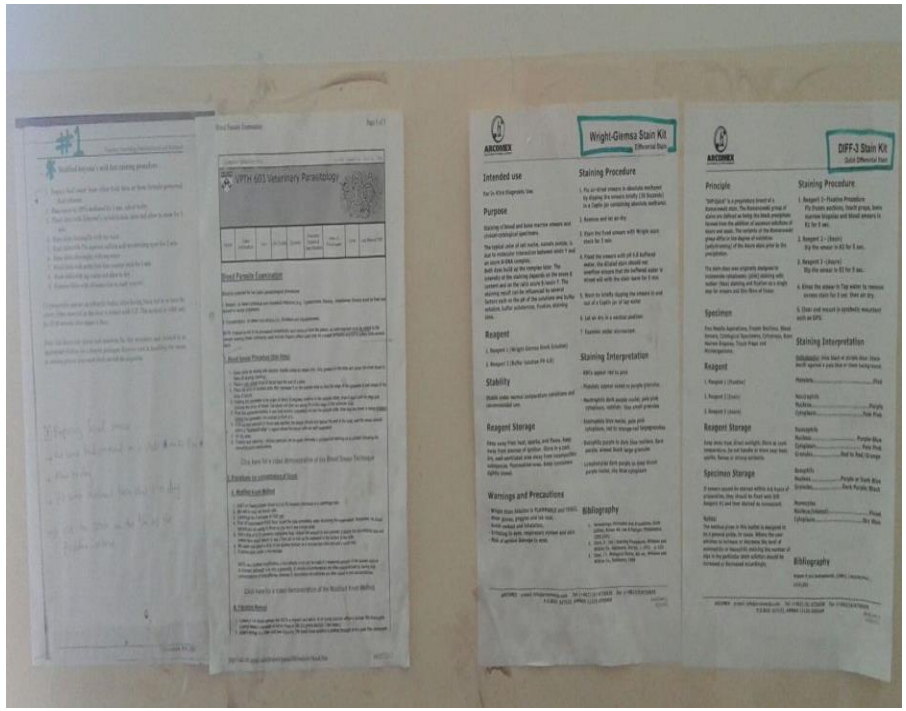
- There are suitable clothing and PPE are identified and made available according to the assessed risks (e.g. Lab coat, Gloves, Surgical mask, N95 mask, Goggles).

- Staff are supplied with correctly fitting (e.g. size, material) equipment and clothing and properly trained to ensure appropriate usage, disposal and maintained.
- Fire extinguishers and alarm are available



- There is a list of biological agents that may be manipulated.
- Procedure are established and maintained for sending and receiving any infectious contaminated material.





- Gloves are worn when handling infectious material or contaminated equipment.
- Gloves are removed prior to touching common areas such as door handles, computer, etc.
- All people exiting the laboratory wash their hand after handling contaminated materials, infectious agents, and after removing gloves.

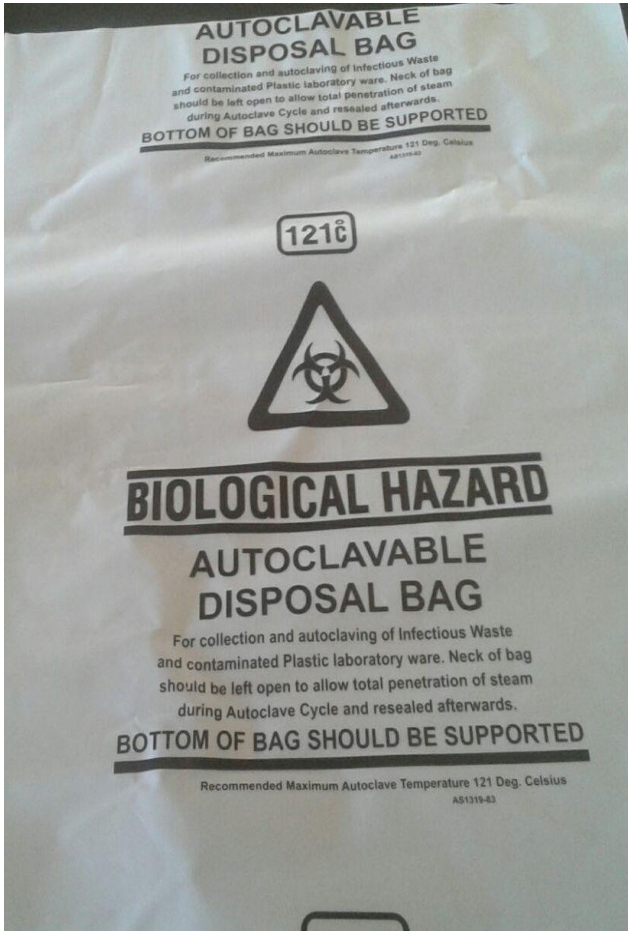
- Food and drinks prohibited in the laboratory areas.
- Mechanical pipetting devices are available for use.
- The biological agent and toxin inventory are up-to-date established and maintained.
- The equipments and elements certified and validated in line with the manufacturer or regulations requirements.
- The equipment not always correctly maintained, because the Biomed Engineering Department not always responding - they need to send the equipment to Bio Med Eng Department but they don't always come to the Lab. They only come if Equipment is too heavy.
- Not all laboratory procedure are performed to minimize splashes or aerosols.
- There face protection using face shield is not provided when working out side the BSC.

Decontamination and waste management

- The disinfection and decontamination procedures are implemented.

- Decontamination procedures in place and enforced for the work surfaces, spills involving hazardous material and waste generated that may contain potentially hazardous material.
- Waste segregated in proper containers.
- Chemical waste containers are labeled dated and kept close.
- Sharp containers used and disposed of properly.
- Container not overfilled.
- Culture stocks and other regulated waste properly decontaminated before disposable.
- There is a big and small incinerator.

- Biohazard waste containers are labeled and closed.



Security

- Access is limited and restricted to authorized personnel.
- A policy and a procedure is in place to identify sensitive information and to control access to such information.
- There are an appropriate security measures in place to minimize potential inappropriate removal or release of biological agents (e.g. emergency exit).
- The access to sensitive information (e.g. inventory of agents and toxins) is controlled by adequate policies and procedures.
- The facilities designed to allow working in a safe and secure but it should be more controlled.
- The procedures for a safe and secure transport of culture, specimens, samples and other contaminated materials partially established, written procedure is needed.

Biorisk Assessment and Control

- There is no regular review of the biorisk management system.
- The hazards associated with proposed work identified but not documented.

Implementation and Operation

- The roles and responsibilities related to biorisk management are defined but not documented.
- Not all biorisk control measures described in an action plan, some action plans are described such as rabies vaccine , tamflue … etc.
- The personnel not regularly trained on biorisk management.
- The lab has no written policy concerning the management of laboratory biorisk (biosafety & biosecurity).
- The emergency plans are available (e.g. in case of fire, flood, and worker exposure, accident or illness, major spillage).
- The contingency measures planned in the event of an emergency or unforeseen event (e.g. power Failure) we have an electrical generator.
- Accident/incident and nonconformities related to biorisk are not correctly managed (i.e. reported, recorded, investigated, and leading to preventive or corrective actions.

Training and project for Biorisk

- MOA is the one of the stickholder with different facilities in Jordan who participate in revising and approving the national biorisk management guide line (the implementation of this guideline would improve biosafety and biosecurity among different facility that handle biological agent and toxin).

- MOA had training for Laboratory Assessments-CDC Lab Team & Sandia Labs.
- MOA will have training with Jordan University of Science and Technology (JUST) as well in biorisk management in November 2015

- We start with Biosafety level III laboratory project (under construction and the expecting date to be ready APRIL 2016)

THANK YOU