

MAMNUAL OF RABIES REMOTE LABORATORY SITE INSPECTION

BACKGROUN D

Animal rabies surveillance is crucial to control rabies in an area. Surveillance data is necessary in establishing the local burden of disease necessary for planning and response. However, lack of proper diagnostic facilities often limits rabies surveillance particularly areas far from regional animal disease diagnostic laboratory (Mananggit et al. Tropical Medicine and Health 2021). To strengthen capacities of animal rabies surveillance and establish rapid outbreak control in the areas, decentralization of rabies diagnostic laboratory is necessary in the Philippines. An alternative to centralized or laboratory-based testing is the use of other technologies such as Lateral flow devices (LFDs). These are low-cost, simple, rapid, and portable detection devices. Rabies LFD developed by Oita University showed high diagnostic accuracy as a tool to diagnose rabies in post-mortem animals in the Philippines (Kimitsuki et al. PLOS NTD 2020). LFD combined with a straw sampling method is quicker, simpler, and less hazardous than the standard test. The method can be performed in the any laboratory. Now, Local government unit can perform rabies tests in their laboratory if they use LFDs with straw sampling method is used.

PURPOSE OF THIS MANUAL

Safety precautions are highly necessary when handling samples from animals suspected of having rabies. Regional Animal Disease Diagnostic Laboratory can play an important role to set up rabies remote laboratory, assess the biohazard risks, and safety precautions to improve surveillance of the disease. This site inspection manual is intended to provide guidance to perform a comprehensive laboratory capacity and safety assessments

This manual is intended for RADDL staff who will perform laboratory assessments prior to operation of remote rabies laboratory.

DEFINITION

1. Remote Rabies Laboratory – rabies laboratories that are located far from the RADDL will use LFD and straw sampling method as a means to collect brain sample, and utilizing LFD kits to test for rabies diagnosis in post-mortem animals.
2. LFDs – Lateral flow devices, also referred to rapid immunochromatographic test (ICT), are quick and easy in comparison with standard test, dFAT and can be used in areas where neither fluorescent microscopy nor light microscopy is available or practical.

Annex 1. Laboratory Inspection Checklist Form

Laboratory Site:	
Date of Inspection:	
Inspector/s:	
Name/s of Contact Persons:	

1 Laboratory Site		
1.1	Is the distance of the laboratory to the main office efficient / accessible for the technician who will be conducting LFD tests, and decapitation of animal head?	<input type="checkbox"/>
1.2	Is the laboratory site away from residential areas or public markets?	<input type="checkbox"/>
1.3	Is the laboratory site secure and safe for the workers to store equipment and other laboratory materials?	<input type="checkbox"/>
1.4	Is there a laboratory room with lavatory, source of water, a closed septic tank, and windows for good airflow?	<input type="checkbox"/>
1.5	Does the site have an area where animal carcasses can be buried? Is it fenced, where other animals cannot disturb the burial site?	<input type="checkbox"/>
Comments		
Suggestions		
Date Accomplished		
2 Laboratory Set-Up		
2.1	Does the proposed laboratory room have sufficient ventilation, with grilled windows?	<input type="checkbox"/>
2.2	Does the proposed laboratory room have a faucet and sink, with a working plumbing system?	<input type="checkbox"/>
2.3	Does the proposed laboratory room have a provisional space for a working surgical table?	<input type="checkbox"/>
2.4	Does the proposed laboratory room have a dedicated refrigerator (2-8°C) for LFD storage?	<input type="checkbox"/>
Comments		

Suggestions		
Date Accomplished		
3 Hazardous Wastes and Disposal		
3.1	Is the procedure for waste disposal available for person/s in charge of waste disposal?	<input type="checkbox"/>
3.2	Is there a biological waste container with an autoclavable bag?	
3.3	Is the chemical waste container labeled properly?	<input type="checkbox"/>
3.4	Is there an appropriate drainage system suited for disposal of hazardous fluids? (NOTE: Fluids from the sample should flow through a closed septic tank)	<input type="checkbox"/>
3.5	Is the person in charge of waste disposal trained how contain biological and chemical spill?	<input type="checkbox"/>
Comments		
Suggestions		
Date Accomplished		
4 Laboratory Personnel		
4.1	Is/are the person/s assigned to work in the remote rabies laboratory room fully vaccinated* against Rabies? *Completed PrEP with boosters	<input type="checkbox"/>
4.2	Is/are the person/s assigned to work in the remote rabies laboratory trained to conduct simple straw method collection?	<input type="checkbox"/>
4.3	Is/are the person/s assigned to work in the remote rabies laboratory trained to use LFD kit?	<input type="checkbox"/>
4.4	Is/are the person/s assigned to work in the remote rabies laboratory trained to properly decapitate a suspected animal?	<input type="checkbox"/>
4.5	Is/are the person/s assigned to work in the remote rabies laboratory with qualifications related to laboratory work?	<input type="checkbox"/>
4.6	Are pertinent documents such as vaccination card of trained staff, and training certificates available?	<input type="checkbox"/>
Comments		
Suggestions		

Date Accomplished		
5 Biosafety		
5.1	Is there a biohazard sign posted at the door of the laboratory?	<input type="checkbox"/>
5.2	Are there appropriate PPE available to perform the procedure?	<input type="checkbox"/>
5.3	Is the quantity of PPE enough to for all the staff to perform the procedures safely?	<input type="checkbox"/>
5.4	Are the staff trained in the proper use of PPE?	<input type="checkbox"/>
5.5	Do staff adhere to biosafety behaviors (No wearing of PPE outside the laboratory, no eating and drinking within the laboratory)	<input type="checkbox"/>
5.6	Is there a contingency plan in case of exposure or any other emergencies?	<input type="checkbox"/>
5.7	Are emergency contact numbers available in case of emergency?	<input type="checkbox"/>
Comments		
Suggestions		
Date Accomplished		
6 Specimen		
6.1	Does the proposed laboratory room have a dedicated freezer for sample storage before and after testing procedures?	<input type="checkbox"/>
6.2	Are specimens recorded in a worksheet, log book, computer, or any similar system?	<input type="checkbox"/>
6.3	Is there a test request form available?	<input type="checkbox"/>
6.4	Are collection and testing procedures available to personnel performing the task?	<input type="checkbox"/>
6.5	Are interview forms available providing details of the biting animal and bite victim for review? (Similar to RADDL)	<input type="checkbox"/>
6.6	Is a guideline/policy available regarding the retention and disposal of both samples and records?	<input type="checkbox"/>
Comments		
Suggestions		
Date Accomplished		