### PARTICULARS OF TOPIC

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CODE OF PROFESSIONAL CONDUCT FOR LABORATORY PERSONALS

1. Place the well-being and service of the sick above your own interests.
2. Be loyal to your medical laboratory profession by maintaining high standard of work and striving to improve your professional skill and knowledge.
3. Work scientifically and with complete honesty.
4. Do not misuse your professional skill and knowledge for personal gain.
5. Never take anything from your place of work that does not belong to you.
6. Treat with strict confidentiality any personnel information that you may learn about the investigation.
7. Respect and work in harmony with the other members of your hospital staff or health centre team.
8. Be at all times courteous, patient, and considerate to the owners and field officers.
10. Follow safety procedures and know how to apply first aid.
11. Do not drink alcohol during laboratory working hours or when on emergency stand-by.
12. Use equipment and laboratory ware correctly and with care.
13. Do not waste reagents or other laboratory supplies.
14. Fulfill reliably and completely the terms and conditions of your employment.
SAFE LABORATORY DESIGN AND ORGANISATION

Features

Lab with adequate floor, bench and storage space for staff to work safely.

1. A floor that is well constructed with a surface that is non-slip, impermeable to liquids, and resistance to those chemicals used in the laboratory.

2. The wall and the entire floor should be assessable to washing.

3. Floor should not be heavily waxed or covered with matting, drains are recommended.

4. Walls that is smooth free from cracks, impermeable to the liquids.

5. A door at each end of laboratory so that laboratory staff not be trapped, should a fire breakout.

6. The doors should open outwards and exit roots must never be obstructed.

7. Internal door should be self-closing and contain upper viewing pens.

8. Adequate ventilation with windows that opened, the windows should be fitted with blinds and mosquito free screen.

9. Sectioning of laboratory in to separate room or working area with definite places for visitors and reception of the specimens, these should also be easily accessible, and suitable equipped first aid area in the laboratory.

10. The specimen reception area must be equipped with a table or hatchway, which has a surface that is impervious, washable, and resistant to the disinfectants.

11. Bench surfaces without cracks impervious, washable, and resistant to the disinfectants and chemicals.

12. Benches, shelving and cupboards needs well constructed and kept free of pests.

13. Bench tops need to kept as clear as possible to give maximum working area and to facilitated and encourage cleaning.

14. Suitable storage facilities that include a well ventilated, fire proof, locked store for the storage of flammable chemicals.

15. A gas supply that piped in to the laboratory with the gas cylinder stored in an out side locked store.

16. A room that is separate from the working area where refreshment taken, personal food, and other belongings store, safely.
17. Wall pegs should be provided in the laboratory on which to hang laboratory coats.

18. Near to the staff, room there should be separate room with toilet and hand washing facilities.

19. An adequate number of hand basins in the laboratory with running water operated by wrist levers or foot paddles.

20. Bars of soap should be provided and not soap dispensers.

21. Ideally, paper towels should use.

22. If this is not possible, small frequently laundered pieces of cloth provided.

23. Avoid the use of a single large towel laundered once or twice a week.


25. Provide sufficient supply of wall electric points to avoid the use of adaptors.

26. Fire extinguishers cited at accessible points this needs of the dry chemical type, if extinguishers are not available provide several buckets of sand.

27. Observe good illumination especially in the testing areas of the laboratory.

28. Provide adequate waste disposal area and safe disposal system.

29. There should be a system for making high-risk specimens discard container, and hazards chemicals and reagents.

30. Provide Suitably labeled separate containers for the disposal of infected material, lab animals, tissues, exudates, serum, needles, syringes and broken glassware.

31. A simple warning symbol such as a red triangle used to mark containers in which infected material is placed.

LABORATORY POLICIES

WORKING LABORATORY HOURS AND EMERGENCY.

As far as possible, there should be definite laboratory working hours.

Outside of normal working hours, each laboratory should organize a system for testing urgent specimens. Written details of the emergency lab service (on call service) should be circulated to all those concerned. Lab staff that participates in the emergency service must be able to work efficiently and reliably without supervision.
RANGE OF TESTS PERFORMED AND THE REFERRAL OF THE SPECIMENS:

In decide and do which tests under taken in a Regional Laboratory, District Polyclinics and Block level minipolyclinics, hospital, and state / national labs.

COLLECTION OF SPECIMENS

The correct collection of specimens is essential for reliable test results. Lab must issue instructions regarding the collection of routine and urgent specimens to all those responsible for the collection of specimens from inpatient /private/ co-operative farm animals / birds and out break patient.

There should be an organized system for the collection of routine specimens from grade II dispensaries, Taluka minipolyclinics, district polyclinics, regional laboratories and I. Specimens for urgent analysis delivered to the lab as soon as possible to have a correct and specific bacterial cultural isolation, biological testing, drug sensitivity, poison / toxicological detection, virological testing and biological factors involved in disease condition of livestock or poultry.

A request letter must accompany every specimen this should provide essential animal patient information, and a clinical, note regarding diagnosis and treatment. Those responsible for collecting samples must check that every specimen properly and clearly labeled with the species /owners name and hospital place/ taluka (block) / district, date and time of collection and certify about the name and number agree with what is written on the request form.

Any specimen found to be unsuitable must not accept by the lab for testing. When an error of collection made, a note indicating how to correct the fault should accompany the returned form.

If the investigation is required urgently, every effort must make by both the lab and field staff to obtain repeat specimen from livestock/poultry as soon as possible. Lab staff should encourage, field staff to seek advice if they are uncertain about the collection of specimens for particular investigations.

WORK LOAD CAPACITY OF THE LABORATORY.

The workload capacity of a lab must match to the number of qualifying staff / subject specialization and to level of training, and to the size of lab and its facilities.
If the amount of work requested is beyond the capabilities of lab, this must brought to the attention of the officer with overall responsibility for the lab.

When workload is excessive, the testing of specimens become unreliable and safety measures tend to be ignored.

Too little work can also lead to unreliable test results due to lack of concentration.

**DELIBERATION REPORTS**

The most experienced member of lab technical staff must check all results. Any unexpected result should be investigated and repeated if necessary. It is important for lab workers to understand the clinical significance and accepted reference values (‘normal range’) of the test they perform.

A clinically serious abnormal result should bring to the attention of the I/C officer concerned as soon as possible. When a result phoned, it is advisable to request the person /officer receiving the report to repeat back the name of owner / species / area/ strength of susceptible population in that area / zoonotic disease and test results, to make sure that the report has been heard correctly. A written report should follow as soon as possible.

There should be an organized system for the delivery of the reports to clinics and from referral lab to peripheral veterinary hospitals and animal health center private farmers. To avoid any loss of reports, all results should be placed in marked envelopes or in closed folders, which can be returned to lab for re-use.

**REPORTING LABORATORY TESTS AND KEEPING RECORDS**

Standardization in the reporting of lab tests contributes to the efficiency of lab service and is of great value when patients/ species / owner are referred from one hospital to another.

Whenever possible, request forms and other lab printed stationery should be prepared and issued by a central store section.

**USE OF RUBBER STAMP**

Standardization in presenting and reporting results can be achieved by the use of rubber stamps. Adequate ink must be used and the stamp must be positioned carefully.

**KEEPING RECORD IN LABORATORY**

The lab should keep a record of all tests as carbon copies, work sheets, or in simple exercise books. Whichever system is used, it must enable patient /
species / owners / institutes results to be found quickly. Records of tests are also required when preparing work reports and estimating the workload of the lab.

If carbon copies or worksheets are used there must be dated and filed systematically each day.

If exercise books are used, backing cards, which are headed and ruled, can be placed under pages to avoid having to rule and head each page separately. The cards must be heavily ruled so that the lines can be seen through the pages of book. Separate books each with its own cards can be prepared to record of hematological / histopathological / biopsy, bacteriological, clinical chemistry, urine, fecal and all other time to time improved tests. Recoding laboratory results in owner's / institutes name along with necessary details.

PREVENTING LABORATORY INFECTION

All specimens received in the laboratory should be regarded as potentially pathogenic

The following are the main ways that laboratory workers can prevent lab-acquired infections. Practicing personal hygiene and reducing contact with infected material.

Handling all specimens and infected materials with care.

Never use mouth pipetting, Disposing safely of specimens and contaminated material. Immunized against highly infectious pathogens.

ROLE OF THE LABORATORY IN HEALTH CARE AND TRAINING OF THE LABORATORY PERSONNEL'S

1. - Training of the laboratory workers.
2. - Professional code of conduct.
3. - Upgrading and continuing education.

CENTRAL AND PUBLIC LABORATORY

This laboratory is responsible for the planning, finance and co ordination of the National / State laboratory service. It has equally important roles in ensuring the reliability of the service, the appropriateness of its technology and training and motivation of its work force and ensuring that the service extends in to areas of animal/ birds health needs and its facilities are made available to as many as livestock owners / institutes possible.
The central and public laboratory is also responsible for the prompt laboratory investigation of epidemics of serious illness among livestock. In addition, poultry birds.

**STAFF**

A central laboratory is staffed by a Bacteriologist, Virologist, pathologist, senior coordinating officer, several senior technologists and technician, senior safety officer, laboratory tutors, finance officer, a store officer, clerical staff, and several aids according to the size and work load of the laboratory.

**FUNCTIONS**

The main functions of a central and animal health lab are as follows:

1. To formulate a professional code of conduct for veterinary lab
2. To perform a range of specialist tests not normally undertaken in the Regional laboratories, such as viral, histopathological, mycological, bacteriological, nutritional, metabolic, toxicological and other necessary investigations.
3. To carry out appropriate observations in to important State / National Livestock Health problems
4. To evaluate new technologies, standardize techniques, and test the appropriateness of new equipments
5. To purchase supplies and equipments for the State / National lab service. And to organize an efficient system of requisition, distribution and maintenance of equipments
6. To communicate and collaborate with National / International Organization in promoting laboratory standards and code of safety for indigenous laboratories
7. To train specialist technician and to organize laboratory-technical seminars
8. To prepare, and where required, translate appropriate training manual for different laboratory training programme.
9. To prepare lab request forms, record sheets, order forms, and other essential stationery, this requires standardization.
10. To prepare and distribute an Annual Report on the activities of the State / National lab service within the National Livestock health programme. In addition, to prepare a budget for presentation to the livestock and birds health authorities.
10. To support the work of the Regional Laboratories by providing control sera, certain standard reagents, chemicals, and bacteriological media constitutes and ready prepared complex media, standard stationary, specimen containers, and other essential laboratory supplies.

11. Visiting each Regional lab every six months to discuss with the technical staff the work and needs of all the labs in the Region to check the records and the quality control measure, service major equipment, install and demonstrate any new complex equipment, and ensure that the safety measures in each department are being followed.

12. Coordinating an external quality assessment programme in parasitological, bacteriology, and clinical chemistry etc.

**EFFECTIVE COMMUNICATION IN LABORATORY**

If a laboratory service is to function smoothly, reliably and effectively lab workers must be able to communicate well. Communication - By definition, communication is the accurate passing on or sharing of information. In communicating, it is important to consider the nature of the information being communicated to the officer/institute or the officers /institutes to whom the information is being communicated. The most effective way of communicating the information. In laboratory work, there are three main ways of communicating information by:

**WRITING**

Writing communication to be effective written communication needs to be presented legibly and neatly. Expressed clearly and simply.

**WRITING LEGIBLY AND NEATLY.**

Lab work, serious consequence may result when hand written figures or words are read incorrectly because of poor handwriting or untidy correction. An eligibly written report may result in a species-owner / institute / farm / flock receiving incorrect message / treatment.

The presentation of well-written and neat reports not only avoids errors, misunderstanding and frustrations, but also inspires confidence in those using the laboratory. Before issue, the most senior member of the staff should check all reports.

To promote standardization and neatness of reporting, the use of rubber stamp is recommended but care must be taken to ensure the stamp is positioned. Well and sufficient ink is used.
WRITING CLEARLY AND SIMPLY

Opportunities for laboratory personnel to develop writing skill should provide during training. A trained lab technologist needs to know how to write clear reports and instructions with regard to test methods, use of equipments preparation of reagents, safety measures, collection of specimens, lab policies, noticed, agendas for meeting, budget, work report, and requisition for lab supplies. Lab person should be encouraged to contribute to newsletters and journals.

SPOKEN COMMUNICATION

Important aspect of spoken (verbal) communication include

CLARITY OF SPEECH -

The main requirement of spoken communication is that the person to whom they are addressed can hear the words spoken distinctly. The barrier to the effective spoken is background noise. Noise should therefore be kept to a minimum when speaking e.g. reduces the speed of the centrifuge.

It is particularly important to speak clearly when addressing owner/ officer. Hesitant and mumbled instructions lead to misunderstandings and a lack of confidence by owner/ officer.

TONE OF VOICE -

A kind and understanding tone of voice may greatly help an officer. A laboratory worker always tries to receiver / owners by explaining simply the procedure of the test and, without disclosing professional information, sick to answer quires. It is essential for the lab worker not only to function rapidly and reliably but also to reply calmly and patiently anxious owners in cases of out breaks / poisoning / natural disaster occasions etc..

Spoken communication is influenced by temperament and fatigue, but a courteous response based on a respect for all owners / officers should always be possible.

ABILITY TO SPEAK INFORMATIVELY -

This is particularly important when giving the results of tests by telephone or directly to field officer. An understanding of the clinical significance of investigation is required. If a laboratory worker does not have sufficient information to answer a question about report, the questioner should be referred to a more experienced member of staff / officer. If unable to reply and no other person is available the laboratory person must advice that he/ she is unable to assist. Inaccurate information must never be communicated. The ability to speak informatively is also required when attending laboratory, inter departmental meeting to discuss laboratory policies.
ACTION COMMUNICATION

A smile and caring look and action can inspire trust.

Action communication is also important among staff members if a pleasant working environment is to be maintained.

GUIDE LINES FOR EFFECTIVE COMMUNICATION

The following are the guidelines for effective communication, which Shirley Poll presented at a congress of the International Association of Medical Laboratory Technology.

Seek to clarify your ideas before communicating.

Consider total physical and human sitting when you communicate. More than words alone convey meaning and intent. When you communicate by mindful of the overtone as well as the basic content of your message. Take the opportunity when it arises, to convey some thing of help or value to the receiver. Follow-up of your communication. Be sure your action supports your communications. Seek not only to be understood but to understand and may be a good listener. Communicate for tomorrow as well as today. Clarity of speech

Books referred –
Special thanks to,
1. Medical Laboratory Manual For Tropical Countries – vol. 1
Second Edition - Monica Cheesbrough