



SOP for Clinical Diagnostic Services

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NVH-P-U8-01	01/01/2019	31/12/2021	001

Document Approval

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Revision History

Revision	Revision Date	Reason for Revision	Revised by

Prepared by	Reviewed by	Authorized by
NVH	Review Committee	DoL



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**1. Purpose**

1.1 This standard operating procedure describes the procedures for diagnostic services.

**2. Scope**


2.1 This procedure is to be followed by staff designated for providing diagnostic services.

**3. Responsibilities**

3.1 All designated staff for diagnostic services should follow this procedure.

<b>Sl.N o.</b>	<b>Diagnostic equipment</b>	<b>Official Designation</b>	<b>Responsibilities</b>
1.	X-ray	X-ray technician	To take X-ray and upload on LAN
2.	Ultrasonography	Ultrasound technician	To perform ultrasound, generate report and upload on LAN
3.	Endoscopy	Endoscopy technician	To perform endoscopy, generate report and upload on LAN
4.	Ophthalmoscope	Veterinarian	Examine and note the observations
5.	Otoscope	Veterinarian	Examine and note the observations
6.	Tonometer	Veterinarian	Examine and note the observations

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#### 4. Definitions

- 4.1 **AHD:** It refers to Animal Health Division under the Department of Livestock.
- 4.2 **Animal attendant:** It refers to a person who helps in restraining of animals and ensures the well being of the animals during the treatment procedures.
- 4.3 **Anesthesia:** It refers to insensitivity to pain, especially as artificially induced by the administration of gases or the injection of drugs before surgical operation.
- 4.4 **DoL:** It refers to Department of Livestock.
- 4.5 **DRA:** It refers to Drug Regulatory Authority.
- 4.6 **DVH:** It refers to Dzongkhag Veterinary Hospital.
- 4.7 **Diagnostic services:** It refers to the imaging and laboratory capabilities available for determining the cause of an illness.
- 4.8 **Diagnostic Procedure:** The process of identifying or determining the nature and cause of a disease or injury through evaluation of patient history, examination and review of laboratory data.
- 4.9 **Effective Date:** It is the date that a document becomes effective for use.
- 4.10 **Endoscopy:** It is a process of examining the internal organs by introducing endoscope into the body.
- 4.11 **LAN:** It refers to local area network.
- 4.12 **Muzzle:** It refers to a device used to cover the animal's snout.
- 4.13 **NVH:** It refers to National Veterinary Hospital, Thimphu.
- 4.14 **Ophthalmoscope:** It refers to an instrument for inspecting the retina and other parts of eye.
- 4.15 **Otoscope:** It refers to an instrument for visual examination of eardrum.
- 4.16 **Para-veterinarian:** It refers to a person with diploma in Animal Science and is authorized to provide treatment to the animals.
- 4.17 **Restrain:** It refers to application of any procedure designed to restrict its movements in order to facilitate examination of patient.
- 4.18 **SOP:** It refers to Standard Operating Procedure.
- 4.19 **Staff:** It refers to veterinarians, para-veterinarians and animal attendants.
- 4.20 **TVH:** It refers to Thomde Veterinary Hospital.
- 4.21 **Technician:** It refers to technical staff involved in diagnostic procedure.
- 4.22 **Tonometer:** It refers to an instrument to measure eye pressure.
- 4.23 **Ultrasonography:** It is a technique using echoes of ultrasound pulses to delineate objects or areas of different density in the body.
- 4.24 **Veterinarian:** It refers to a person holding a bachelors degree in Veterinary Science and Animal Husbandry and is authorized to practice veterinary medicine.
- 4.25 **X-ray:** It refers to an electromagnetic wave of high energy and very short wavelength (between ultraviolet light and gamma rays), which is able to pass through many materials opaque to light.

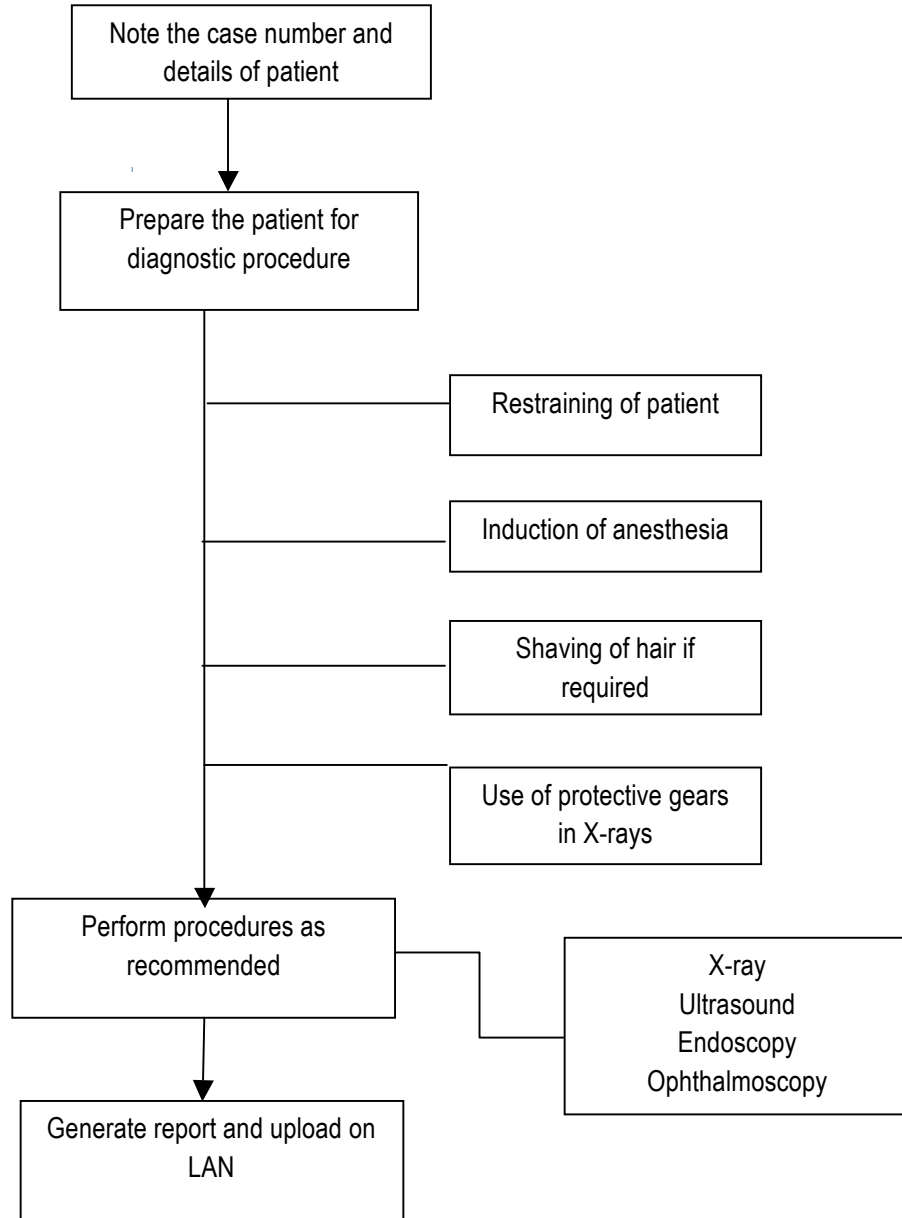
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**5. Process Map in Flow Chart**



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## 6. Procedure

- 6.1 The technical staff should wear clinical dress (blue) or white lab coat (properly buttoned) with nametag.
- 6.2 Note down the case number and the details of the patient in the register.
- 6.3 Prepare the patient for the diagnostic procedure.
- 6.4 Restraining of patient.
- 6.5 Ask the owner to put dog muzzle to prevent from biting.
- 6.6 Advise the owner to hold the patient properly to carry out the procedures.
- 6.7 Make friend or get familiar with the patient to ease handling by calling their names with gentle patting of head and body.
- 6.8 Induction of anesthesia if necessary.
  - 6.8.1 Inform and give awareness to the owner about the risk of anesthesia and let them sign the consent form to carry out the procedure.
  - 6.8.2 Prepare line of anesthesia as per the body weight of the patient.
  - 6.8.3 Locate the vein by clipping the hairs either on cephalic or saphenous vein.
  - 6.8.4 Disinfect the site and connect IV line for injecting anesthesia.
  - 6.8.5 Inject the anesthesia by monitoring the patient or as per the calculated doses.
- 6.9 Shaving of hair if necessary.
- 6.10 Use of protective gears such as lead jackets and gloves in case of X-ray.
- 6.11 Perform the procedures as recommended by the veterinarians.
  - 6.11.1 X-ray
  - 6.11.2 Ultrasonography
  - 6.11.3 Endoscopy
  - 6.11.4 Ophthalmoscopy
  - 6.11.5 Otoscope
  - 6.11.6 Tonometer
- 6.12 Generate report of the procedure performed and upload on LAN.
- 6.13 Clean the equipment and machinery after the procedures.
- 6.14 Use rectified spirit to clean the equipment and make sterile for next use.

## 7. Related forms or Work Instructions.

- 7.1 SOP for Anesthesia.
- 7.2 SOP for Consultation.
- 7.3 SOP for Case registration.
- 7.4 SOP for Treatment.
- 7.5 SOP for Surgery.
- 7.6 Laboratory Sample examination form.

## 8. References.

- 8.1 SOP on SOP of Drug Regulatory Authority of Bhutan.
- 8.2 Black's Veterinary dictionary.

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