**CES xxxx** **Compulsory**

**Ethiopian Standard**

**Second Edition 2020**

# Medium Clinic _ Requirement




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**CES xxxx**

## Foreword

This Ethiopian Standard has been prepared under the direction of the Technical Committee for Health service. (TC 198) and published by the Ethiopian Standards Agency (ESA).

This Compulsory Ethiopian Standard cancels and replaces ES 3613:2012.

Application of this standard is COMPULSORY with respect to health & safety

A Compulsory Ethiopian Standard shall have the same meaning, interpretation and application of a "Technical Regulation" as implied in the WTO-TBT Agreement.

Implementation of this standard shall be effective as of xxxxx October 20xxx

**ETHIOPIAN STANDARD** **CES xxxx**

# Medium Clinic _Requirement

## 1. Scope

This Ethiopian standard provides minimum requirements for the establishment and maintenance of medium clinic with respect to practices, premises, professionals and products or materials put into use for medium clinic.

## 2. Normative Reference

ES xx Part 1-Health services-Terms and definitions

CES xx-Part 2- Health services –General requirements

CES xx-part 3-Health Services –Physical Infrastructure Requirements

## 3. Terms and Definitions

For the purpose of this Standards the terms and definition in ES xx and the following definitions shall apply

### 3.1. Authority

Any

**3.2.**
**appropriate organ**
a state government organ authorized to implement and control activities at a state level;

**3.3.**
**person**
any physical or judicial person

**3.4.**
**authorized person**
Health centre staff who is responsible for a given

**3.5.**
**medium Clinic**
Shall mean the next level to primary level of the healthcare in ambulatory health service that provide mainly curative service and preventive and promotive services indicated in this standard.

## 4. General Requirement

### 4.1. outpatient Medical Service

#### 4.1.1. Practices

4.1.1.1. The medium clinic shall Provide outpatient care (diagnosis & treatment) for ambulatory patients.

4.1.1.2. Provide outpatient care for ambulatory patients: (diagnosis & treatment) of acute conditions;

4.1.1.3. Provide assessment, diagnosis, follow up & referral of ambulatory patients with common and chronic conditions including TB, HIV to appropriate level;

4.1.1.4. The medium clinic shall have clinical protocols for management of at least common disease entities like malaria, hypertension and locally significant diseases.

4.1.1.5. The medium clinic shall have clinical protocols for management of common dental, eye, ENT and mental health problems in line with the national and or international guidelines.

4.1.1.6. The service shall avail national guidelines for malaria, TB/Leprosy, VCT, trachoma, pain management, STI and other common illnesses.

4.1.1.7. The general medical service shall be based on the national referral system which includes at least:

a) Conditions indicative for urgent referral,
b) Procedure for selection of cases and referring patients directly to respective services.
c) List of potential referral sites with contact address (referral directory) with regular update.
d) referral forms.
e) Referral tracing mechanism (linkage).
f) Feedback providing mechanism.
g) Documentation of referred clients

4.1.1.8. The medium clinic shall have a system to report diseases under national surveillance to the sub-city/woreda/town health offices.

4.1.1.9. Specific public health program related service/intervention packages may be delivered in medium clinic upon approval if supported with additional trainings with recorded certificate

## 4.2. Minor Surgical service

### 4.2.1. Practices

4.2.1.1. The Medium clinic shall provide minor surgical services for the following conditions:

a) Circumcisions,

b) Lipoma and simple cyst excisions,

c) abscess drainages,

d) suturing of lacerated wounds,

e) external immobilization of closed and open fractures,

f) foreign body removal and

g) other minor interventions under local anesthesia

4.2.1.2. The medium clinic shall have clear protocol for minor surgical procedures to be done at outpatient level.

4.2.1.3. Surgical interventions shall be recorded for each patient and documentation shall be integrated with the patient's medical record.

4.2.1.4. The preoperative diagnosis shall be recorded in the medical record for all patients prior to minor surgery.

4.2.1.5. The general medical practitioner shall explain the disease condition, minor surgical procedure and outcome possibilities in clear, simple and understandable terms to the patient and/or next of kin or family.

4.2.1.6. There shall be processes and procedures that ensure that minor surgical procedures shall be done under aseptic technique.

4.2.1.7. The medium clinic shall have a copy of management protocols at least for the following:

a) Acute burn management

b) pain management

c) emergency or acute trauma management

d) emergency resuscitation (CPR)

4.2.1.8. The minor surgical procedure room shall be kept clean at all times

4.2.1.9. There shall be a written protocol about administration of local anesthesia in the medium clinic.

4.2.1.10. During and after a minor surgical procedure pain shall be assessed and controlled by GP or HO or Nurse practitioner or BSc nurse.

## 4.3. Nursing care service

### 4.3.1. practices

4.3.1.1. Nursing care shall be availed for patients unable to support themselves, and other clients who need the care.

4.3.1.2. Written copies of nursing procedure manual shall be available to the nursing staff. The manual shall be used at least to:

a) Provide a basis for induction of newly employed nurse(s),

b) Standardize procedure and practice.

c) Provide a basis for continued professional development in nursing procedures/techniques

d) There shall be a procedure for standardized, safe and proper administration of medications by nurses or designated clinical staff including proper documentation.

4.3.1.3. The medium clinic shall established system for verbal and written communication about patient care that involves nurses.

4.3.1.4. All patients kept for observation/resuscitation shall be under the supervised care of a licensed nurse at all times.

4.3.1.5. Copies of Nurses' code of professional practice shall be available and nurses shall abide by their code of professional practice

relevant to their professional role.

4.3.1.6. Allergies shall be listed on the front cover of the patient's chart or in a computerized system, highlighted on the screen.

4.3.1.7. Nursing personnel shall administer medications prescribed by physician and/ or authorized independent practitioner in accordance with order prescribed and Codes of Professional Conduct and Ethics.

## 4.4. Emergency service

### 4.4.1. Practices

4.4.1.1. The emergency service shall be available during 24 hours

4.4.1.2. Lifesaving management of emergency cases shall be provided without any prerequisite and discrimination.

4.4.1.3. The emergency service shall provide basic life support as indicated for any emergency cases, which may include at least the followings:

a) Airway management,
b) Bleeding control
c) Fluid resuscitation
d) Cardiopulmonary resuscitation (CPR)

4.4.1.4. There shall be a written protocol for emergency services and the provision of this service shall be done in accordance with the clinical protocols of the service.

4.4.1.5. Protocols for initial management of at least the following emergency cases:

a) Shock
b) Severe Bleeding
c) Fracture and injuries

d)Coma

e)Burn

f) Poisoning

g)Seizure disorder

h)Hypertension emergencies

i) Cerebrovascular accident

j) Acute diarrhea (Severe dehydration)

k)Acute abdomen

l) Tetanus

m) Meningitis

n)Severe & complicated malaria

**4.4.1.6.** Infection prevention standards shall be implemented in the emergency/ procedure room as per the IP standards.

**4.4.1.7.** If referral is needed it shall be done after providing initial stabilization and after confirmation of the required service availability in the facility where the patient is to be referred to.

**4.4.1.8.** If the patient to be referred needs to be attended by a health professional during the transfer process, the Medium clinic has the responsibility of assigning the accompanying professional.

**4.4.1.9.** Every procedure, medication and clinical condition shall be communicated to the patient or family member or next of kin after responding for urgent resuscitation measures.

**4.4.1.10.** There shall be a mechanism of quality improvement for the service at least by collecting feedback from clients and having a formal administrative channel through which clients lodge their

complaints and present their grievances.

## 4.5. Delivery Service (optional)

### 4.5.1. practices

4.5.1.1. The medium clinic shall provide delivery service for spontaneous normal deliveries.

4.5.1.2. There shall be a reliable referral system for high-risk mothers and complicated deliveries.

4.5.1.3. Assisted deliveries are prohibited in medium clinic

**MCH service**

4.5.1.4. The medium clinic shall provide MCH services that include ANC, PNC, Family Planning, Growth monitoring, VCT and PMTCT services being compliant with the current guidelines prepared for the respective services.

4.5.1.5. The medium clinic comprehensive abortion care may provide less than 12weeks

4.5.1.6. The medium clinic shall follow the national protocol to management of MCH service.

## 4.6. Pharmaceutical service

### 4.6.1. practices

4.6.1.1. Medium clinics shall have emergency medicines at all times. List of these medicines shall be according to the EFDA Emergency Medicines List specific to these type of facilities

4.6.1.2. The medium clinic shall get emergency medicines from suppliers licensed by EFDA

4.6.1.3. It is prohibited to hold or dispense emergency medicines which are not registered and included in the emergency medicines list by the Authority

4.6.1.4. It is prohibited to hold or dispense non-emergency medicines in these health facilities at any time.

4.6.1.5. These health facilities are not allowed to hold or dispense any donated medications without prior permission of the Authority

4.6.1.6. Emergency medications shall be prescribed by an authorized prescriber and administered by nursing personnel with adequate information and counseling to the patient or care giver.

4.6.1.7. The health facility shall be responsible to report suspected ADR cases to the Authority and all adverse medication effects shall be noted in the patient's medication record.

4.6.1.8. These health facilities shall keep documentation which shows medicines source, date of purchase and receipt, inventory records, medicines waste disposal records and other relevant information

4.6.1.9. These health facilities shall keep medication records for emergency medicines which contains at least

a) Name of patient, sex, age and medical record number,
b) Diagnosis and allergy, if any,
c) Name of the drug, strength, dosage form and total dose given and route of administration,
d) Date dispensed,
e) Prescriber's name, qualification and signature,
f) Prescriber's address (name and address of health facility).

4.6.1.10. Any clinical trial without the permission of the Authority is prohibited in these health facilities

4.6.1.11. Disinfectants and other chemicals shall be stored separately from emergency medicines.

4.6.1.12. The storage condition shall provide adequate protection to the medicines and supplies from all environmental factors until time of use.

4.6.1.13. Medicines shall be kept in a secured, clean, ventilated cabinet and in accordance with the manufacturers' recommendation for storage conditions.

4.6.1.14. These health facilities shall manage and dispose medicines waste in accordance with the directive issued by the Authority.

4.6.1.15. These health facilities shall be accessible to authorized inspector of an appropriate regulatory body.

## 4.6.2. PREMISES

4.6.2.1. The medium clinic shall have a minimum of - rooms.

a) Reception, recording and Waiting area with guest chairs, 16 sq. m

b) Patient examination room(s), 12 sq. m

c) Treatment/ Procedure/ Emergency room, 16

- Cabinet with lock for medical supplies in Treatment/ Procedure/ Emergency room,

d) Delivery rooms #3: Delivery 16 sq. m, Laboring 8 sq. m & Postnatal 8sq. m

e) Emergency resuscitation room with two beds 16 sq. m

f) Instrument processing room 12 sq.m

g) MCH room 9 sq. m

h) Laboratory room, 20 sq. m

- The laboratory shall have wall mount cabinet for reagents,

i) Staff room 9 sq. m,

j) Toilet room with hand washing basin, (male & female), 8 sq. m

k) X-ray room as per ERPA requirements(optional)

l) Incinerator (mobile/fixed).

m) Placental pit (at least a secured area for burial pit).

**4.6.2.2.** The medium clinic facility shall have dedicated territory or compound with entrances and secured from stray animals.

**4.6.2.3.** All rooms shall have adequate light, water and ventilation.

**4.6.2.4.** The examination rooms shall promote patient dignity and privacy.

**4.6.2.5.** The arrangement of rooms shall consider proximity between related services.

**4.6.2.6.** The medium clinic facilities shall be well marked and easily accessible for persons with disability.

**4.6.2.7.** The medium clinic shall have IEC and entertaining materials in the waiting area.

**4.6.2.8.** The medium clinic may have fire extinguisher placed in visible area (Optional).

**4.6.2.9.** The medium clinic premises shall have ceilings.

**4.6.2.10.** The medium clinic shall have hand washing basin at patient care rooms (Examination room(s), treatment room, Laboratory, toilet

room, Delivery room if any)

4.6.2.11. The Internal surfaces of the clinic, i.e. of floors, walls, and ceilings shall be:

a) Smooth, impervious, free from cracks, recesses, projecting ledges and other features that could harbor dust or spillage

b) Easy to clean and decontaminate effectively

c) Constructed of materials that are non-combustible or have high fire-resistance and low flame-spread characteristics

4.6.2.12. Glass doors shall be marked to avoid accidental collision.

4.6.2.13. Potential source of accidents shall be identified and acted upon (slippery floors, misfit in doorways and footsteps etc).

4.6.2.14. The medium clinic premise shall be low traffic area and shall reserve parking place for emergency car/ ambulances.

4.6.2.15. The corridor to examination rooms shall not be less than 1.2m, to allow easy transport of
emergency patients.

4.6.2.16. The medium clinic shall have a minimum of the following premises set up:

| **premises required** | **No. of rooms required** | **Area Required** |
|---|---|---|
| Reception, Registration/ Recording & Waiting area | 1 | 16 sq.m |
| Examination room | 1 | 12 |
| Laboring room(optional) | 1 | 12 |

| | | |
|---|---|---|
| Delivery room(optional) | 1 | 16 |
| Postnatal rooms(optional) | 1 | 12 |
| Shower room and toilet if have delivery service (optional) | 1 | 8 |
| Duty room if the emergency service is 24hs | 1 | 8 |
| MCH room | 1 | 12 |
| Ultrasound room(optional) | 1 | 12 |
| Treatment/ procedure/ injection room | 1 | 12 |
| Laboratory room | 1 | 24 |
| Sample collection room | 1 | 4 include in 24 |
| X-ray room as per ERPA (optional ) | | |
| • Conventional X-ray room | 1 | 24 |
| • Dark room (if necessary) | 1 | 6 |
| • Toilet with hand washing basin | 2 | 8 |
| • Patient dressing cubicle inside x-ray room | 1 | 4 |
| • sub waiting area | 1 | 12 |
| Emergency resuscitation room with two beds | 1 | 16 |
| Instrument processing room | 1 | 12 |
| Staff room | 1 | 9 |
| Toilet (Male &Female) | 2 | 8 |
| Incinerator | | |
| Staff toilet with shower | 1 | 4 |
| Area for placenta pit | | |

### 4.6.3. professionals

4.6.3.1. The medium clinic shall be directed by a licensed

a) General Practitioner with a minimum of 3 years of experience or

b) Generic Health officer or generic BSc Nurse with a minimum of 5 years of experience or

d) Nurse Practitioner or Post basic BSc nurse or Post Basic Health Officer with a minimum work experience of 3 years. These professionals shall have 2 years' relevant work experience before joining the post basic BSc program

4.6.3.2. Where a medium clinic is run by a GP or HO or Nurse Practitioner or BSc Nurse, the service available shall be limited to the scope of work of the respective professional provided by the appropriate regulatory body.

4.6.3.3. The medium clinic shall have at a minimum the following staff:

| **Staffs required** | Number Required |
|---|---|
| GP/HO/Nurse Practitioner/BSc Nurse | 1 |
| Nurse, Diploma | 1 |
| HO or GP | 1 |
| Midwife | 1 |
| If delivery service available BSC midwife | 1 |
| Lab technician or lab technologist | 2 |

| | |
|---|---|
| Radiology technologist if ultrasound service are available | 1 |
| Radiology technologist/Radiographer | 1 |
| Receptionist | 1 |
| Cleaner | 1 |

4.6.3.4. There shall be written discrete job descriptions that detail the roles and responsibilities of all clinic personnel.

4.6.3.5. The medium clinic If the license holder is BSc nurse shall have one HO or GP

### 4.6.4. products

4.6.4.1. Medium clinic shall have the following equipment and supplies:

a) Diagnostic Equipment

- Stethoscope
- Sphygmomanometer
- Thermometer
- Weighing scale
- Infanto-meter and height scale
- Otoscope
- Ophthalmoscope
- Reflex hammer
- Fetosthetoscope
- Snellen`s Chart
- Tuning fork, 500 Hz

b) Medical Equipment

- Mobile examination lamp
- Examination couches
- steam Sterilizer
- Refrigerator #2, (LAB & Treatment room)

c) Delivery Equipment

- Neonatal resuscitation
- Delivery coach

d) Instruments

- Dressing set
- Minor surgical set
- Delivery set
- Enema set
- Specula of different sizes
- Pickup forceps with jar
- Sterilization drums
- Kidney dishes
- Instrument tray
- Instrument trolley
- Ear irrigation syringe
- Packing nasal forceps,
- Steri-strip for steam autoclave
- Lumbar puncture set (optional)
- IV Infusion stand

e) Others

- Tourniquet
- Drapes
- Surgical cape
- Surgical mask
- Kick buckets
- Tongue depressors
- Cabinets and shelves
- Time clock

4.6.4.2. Emergency medicines shall be available as per emergency medicine list prepared by EFDA.

## 4.7. Laboratory service

### 4.7.1. practices

4.7.1.1. Medium clinic shall have a laboratory service during working hours.

4.7.1.2. . The following list of lab tests shall be available in the medium clinic:

**a) HEMATOLOGY**

- **COMPLETE BLOOD COUNT**

- White blood cell count
- Hemoglobin
- Hematocrit
- Differential count
- Hemoparasite
- Platelet
- Erythrocytic Sedimentation Rate (ESR)
- Blood group & Rh

b) **CLINICAL CHEMISTRY**

- Glucose
- Uric Acid
- Creatinine
- Urea/ BUN
- Alkaline Phosphatase
- Aspartate Aminotransferase(AST)
- Alanine Aminotransferase (ALT)
- Bilirubin, Direct
- Bilirubin, Total

c) **URINE**

- Urine chemical test
- Urine Microscopy
- Pregnancy test

d) **PARASITOLOGY**

- Direct Stool Examination

e) **BACTERIOLOGICAL/ FUNGAL EXAMINATION**

- Gram Stain
- AFB Stain
- Indian ink
- KOH
- Wet mount

f) **SEROLOGICAL TESTS**

- HBsAg
- HCV
- H.pylori
- RPR/ VDRL (syphilis)
- HIV Ab test (According to the national algorithm)

**4.7.1.3.** All equipment in the laboratory of medium clinic shall be in good working order, routinely quality controlled, and precise in terms of calibration.

**4.7.1.4.** The laboratory shall have written policies and procedures and include at least the followings:

a) Standard Operating Procedure (SOP) or guidelines for all tests and equipments,

b) Report times for results (Established turnaround time),

c) Quality assurance and control processes,

d) Inspection, maintenance, calibration, and testing of all equipment,

e) Management of reagents: including availability, storage, and testing for accuracy,

f) Procedures for identifying, collecting, processing and disposing of specimens,

g) All normal ranges for all tests shall be stated,

h) Laboratory safety program: including infection control, preventive maintenance,

i) Documentation of quality control data: calibration report, internal and external quality control, refrigerator readings

j) Sample collection manual

**4.7.1.5.** The medium clinic laboratory shall maintain documentations for the implementation of the above-mentioned policies/ procedures

**4.7.1.6.** Requests for testing shall provide:

a. The name of the ordering physician or other person authorized to order testing,

b. Address of the clinic and name of clinic

c. Type of sample collected,

d. The anatomic site where appropriate

e. The test requested

f. Patient ID, name, age and sex

g. Clinical Diagnosis: Pertinent clinical information as appropriate for purposes of test interpretation

h. Date and time of sample collection and receipt in the laboratory,

4.7.1.7. There shall be SOP or criteria developed for acceptance or rejection of clinical samples.

4.7.1.8. The laboratory shall maintain a record of all samples received.

4.7.1.9. . Laboratory shall have a SOP for storage of clinical samples if it is not immediately examined.

4.7.1.10. Laboratory report

a) All laboratory test result/reports shall have reference (normal) ranges specific for age and sex.

b) Documentation or Transcription files of reported results shall be retained by the laboratory for retrieval of the information when needed.

c) In the case of laboratory tests performed by an outside laboratory, the original report from such laboratory shall be contained in the medical record.

d) Quality assured test results shall be reported on standard forms to the physician with the following minimum information:

- Patient identification (patient name, age, sex)
- Date and time of specimen collection
- The test performed and date of report.
- The reference or normal range.
- The laboratory interpretation where appropriate,
- The name and initial of the person who performed the test and released the result.

- Facility address and name

e) Laboratory results shall be legible, without transcription mistakes and reported only to persons authorized to receive them such as the ordering physician or the nursing staff.

4.7.1.11. Safe disposal of samples shall be after decontamination in line with standards prescribed under infection prevention.

4.7.1.12. Wearing of protective clothing of an approved design (splash proof), always fastened, within the laboratory work area and removed before leaving the laboratory work area

4.7.1.13. Where services are provided by an outside laboratory, the conditions, procedures, and availability of services offered shall be available in writing in the medium clinic.

4.7.2. **premises**

4.7.2.1. The medium clinic shall have 1 room with 20 sq. m for basic laboratory service with the necessary space, facilities and equipment to perform tests.

a) Reception desk with patient waiting area (5 sq. m)
b) Bacteriology, Parasitological and urinalysis section (5 sq. m)
c) Hematology, serology section (5 sq. m)
d) Working area (5 sq. m)

4.7.2.2. The laboratory shall provide safety, adequate lighting, ventilation, waste and refuse disposal system.

4.7.2.3. Work areas shall be clean and well maintained.

4.7.2.4. The laboratory shall have controlled temperature of refrigerator

for reagents, blood sample, calibrator, control materials.

4.7.2.5. There shall be cupboard for reagents that shall be kept at room temperature.

4.7.2.6. The laboratory facilities shall meet at least the following:

a) The laboratory shall have a reliable supply of running water. At least two sinks in separate area shall be provided in the room, one for general laboratory use and the other reserved for hand washing (and at least 1000L reserve tank in case of interruption).

b) Continuous power supply

c) Working surface/ Bench tops shall be covered with appropriate water and corrosive resistance materials

d) Internal surfaces, i.e. of floors, walls, and ceilings shall be:

- Smooth, impervious, free from cracks, recesses, projecting ledges and other features that could harbor dust or spillage

- Easy to clean and decontaminate effectively Constructed of materials that are non-combustible or have high fire- resistance and low flame-spread characteristics.

e) Lockable doors and cupboards

f) Closed drainage from laboratory sinks

4.7.3. **professionals**

4.7.3.1. The laboratory of medium clinic shall be directed by a licensed medical Laboratory Technician with 3 years of relevant experience.

4.7.3.2. All lab tests performed in medium clinic shall be done by Medical Laboratory technician.

4.7.3.3. The Medical Laboratory technician shall have a written job description,

4.7.3.4. The medical Laboratory technician shall, at all times, perform his/ her functions with adherence to the highest ethical and professional standards of the laboratory profession

4.7.4. **products**

4.7.4.1. The following minimum equipment's shall be available:

a) Binocular Microscope #1,
b) Chamber #1,
c) Differential counter #1
d) Tally counter #1,
e) Centrifuge #1,
f) Timer #2
g) Refrigerator with thermometer #1,
h) Test tube rack #5,
i) ESR rack of five #2,
j) ESR tubes #12,
k) Spirit lamp #1,
l) Slides,
m) Cover Slides,
n) Reagents,
o) Dry oven/ autoclave (can be shared with general clinic service)
p) Spectrophotometer (semi-automated)
q) Fully automated hematology machine
r) Shacker #1
s) Roller #1(optional)

## 4.8. Radiography IMAGING SERVICES, Optional

### 4.8.1. practice

4.8.1.1. The medium clinic may have X-Ray and /or/ ultrasound service.

4.8.1.2. The X-Ray service shall have written policies and procedures which shall include at least:

a) X-Ray Safety practices;
b) Management of the critically ill patient during imaging procedures;
c) Emergency patient
d) Infection control, including patients in isolation;
e) Timeliness of the availability of diagnostic imaging procedures and the results;
f) Quality control program covering the inspection, maintenance, and calibration of all equipment.

4.8.1.3. The X-Ray service unit shall be free of hazards to patients and personnel.

4.8.1.4. Proper safety precautions shall be maintained against fire and explosion hazards, electrical hazards, and radiation hazards.

4.8.1.5. The Medium clinic shall post in easily accessible place all the necessary signs & the approval certificate from the Ethiopian Radiation Protection Authority through periodic inspection.

4.8.1.6. The medium clinic X-Ray unit shall keep documentation of the report for periodic readings of employee's exposure for radiation by the use of exposure meters or badge tests.

4.8.1.7. The medium clinic shall make sure that the radiographer(s) put on personal TLD whenever on operating the radiation emitting

machines.

4.8.1.8. Requests for X-Ray examination shall contain a concise statement of reason for the examination.

4.8.1.9. X-Ray results films shall be labeled with minimum information that includes: date, patient's name, age, sex, location marks (L/R), name of institute and name of radiology professional /radiographer.

4.8.2. **premises**

4.8.2.1. The X-Ray unit for medium clinic shall fulfill the design requirements of ERPA guidelines.

4.8.2.2. The premise for X-Ray service shall fulfill the ERPA requirements & be functional only if licensed/ certified by ERPA.

4.8.3. **professional**

4.8.3.1. The medium clinic shall have a radiology technologist /Radiographer.

4.8.4. **products**

4.8.4.1. Imaging equipment which shall be available for x-Ray services at Medium clinic are indicated below:

a) Standard conventional x-ray machine,

b) X-Ray viewing boxes,

c) Ultrasound

d) Radiation protection equipment's:

- lead gloves,
- lead apron
- lead goggle,

- gonad shields

e) Dark room film processing baths if necessary

f) Drier (optional),

**4.8.4.2.** The X-Ray machine shall be regularly inspected, maintained, and calibrated by licensed organ or ERPA; appropriate records of maintenance shall be maintained.

**4.8.4.3.** All radiation generating equipment's shall be installed within a room/ building with wall thickness that protects radiation to the surroundings, i.e., the minimum criteria set by the Ethiopian Radiation Protection Authority / International Atomic Energy Agency (IAEA).

**4.8.4.4.** Installation and un-installation of radiation emitting machines like X-Ray shall follow the safety procedures set by the Ethiopian Radiation Protection Authority during all procedures.

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Ethiopian Standards Agency

## *Organization and Objectives*

The Ethiopian Standards Agency (ESA) is the national standards body of Ethiopia established in 2010 based on regulation No. 193/2010.ESA is established due to the restructuring of Quality and Standards Authority of Ethiopia (QSAE) which was established in 1998.

***ESA's objectives are:-***

- ❖ Develop Ethiopian standards and establish a system that enable to check whether goods and services are in compliance with the required standards,
- ❖ Facilitate the country's technology transfer through the use of standards,
- ❖ Develop national standards for local products and services so as to make them competitive in the international market.

## Ethiopian Standards

The Ethiopian Standards are developed by national technical committees which are composed of different stakeholders consisting of educational Institutions, research institutes, government organizations, certification, inspection, and testing organizations, regulatory bodies, consumer association etc. The requirements and/ or recommendations contained in Ethiopian Standards are consensus based that reflects the interest of the TC representatives and also of comments received from the public and other sources. Ethiopian Standards are approved by the National Standardization Council and are kept under continuous review after publication and updated regularly to take account of latest scientific and technological changes. Orders for all Ethiopian Standards, International Standard and ASTM standards, including electronic versions, should be addressed to the Documentation and Publication Team at the Head office and Branch (Liaisons) offices. A catalogue of Ethiopian Standards is also available freely and can be accessed in from our website.



International Involvement

ESA, representing Ethiopia, is a member of the International Organization for Standardization (ISO), and Codex Alimentarius Commission (CODEX). It also maintains close working relations with the international Electro-technical Commission (IEC) and American Society for Testing and Materials (ASTM).It is a founding member of the African Regional Organization for standardization (ARSO).

***<u>More Information</u>?***
***Contact us at the following address.***
***The Head Office of ESA is at Addis Ababa.***

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**Standard Mark**