

# APPENDICES

## Visual inspection - A.E.R.B – categories

| <b>1. Personal Protective Equipments</b> |   |  |  |
|--|---|--|--|
| No.                                      | Policy  |  |  |
| 1.                                       | Only individuals required for the medical procedure, for training or for equipment maintenance shall be in the radiographic room during an exposure.  |  |  |
| 2.                                       | Individuals who are present in a radiographer room during any exposure shall wear protective aprons of at least 0.25 mm lead equivalent during every exposure.                              |  |  |
| 3.                                       | The co patient shall be protected with a lead apron and lead gloves of at least 0.25 mm lead equivalent   |  |  |
| 4.                                       | Radiographers not to hold the patient during a radiation exposure, except in a life-threatening situation.  |  |  |
| 5.                                       | No person shall be employed, routinely assigned, or required to hold a patient during radiographic and fluoroscopic procedures  |  |  |
| 6.                                       | Gonad shielding of not less than 0.5 mm lead equivalent shall be used on a patient during Radiographic procedure, except for cases in which this would interfere with Diagnostic procedure. |  |  |
| 7.                                       | The operator shall collimate x-ray beam limitation to ensure that the x-ray field does not extend beyond the Region of interest.  |  |  |
| 8.                                       | A method to observe the patient during the x-ray exposure (Lead glass) shall be provided for all units.   |  |  |
| 9.                                       | During radiographic exposure, the operator shall stand behind the protective barrier.   |  |  |
| 10.                                      | Report every injury, no matter how slight, to your in charge.   |  |  |
| 11.                                      | Take a special interest in the new or inexperienced persons and help them with the small details of the job.  |  |  |
| 12.                                      | Be sure to notify all persons of any dangerous situations that might affect   |  |  |

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|     | your work area.  |  |  |
| 13. | Remember the patient; never leave him/her unattended.      |  |  |
| 14. | Know your fire extinguishers, their locations and the use. |  |  |
| 15. | Use good housekeeping techniques at all times.             |  |  |
| 16. | Remember the unit security                                 |  |  |

| <b>2. General Radiation Protection</b> |  |  |  |
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| No.                                    | Policy   |  |  |
| 1.                                     | A qualified radiographer must only do all radiographic techniques and procedures. All radiographers must take necessary steps in reducing radiation dose to the patient. |  |  |
| 2.                                     | Check the correct patient for correct examination.   |  |  |
| 3.                                     | Plan your technique to reduce the radiation dose   |  |  |
| 4.                                     | Close the X-ray room door properly and tightly.  |  |  |
| 5.                                     | Provide the necessary radiation protection.  |  |  |
| 6.                                     | Collimate the radiation beam to necessary area only.   |  |  |
| 7.                                     | Give proper and correct instructions.  |  |  |
| 8.                                     | Select the appropriate exposure factor.  |  |  |
| 9.                                     | Place the correct ID Permanent Number for correct patient  |  |  |
| 10.                                    | For female patients check whether they are pregnant.   |  |  |
| 11.                                    | Limit number of people in the X-ray room while X-ray is being done.  |  |  |
| 12.                                    | All staffs must wear radiation-monitoring badge while in the radiology unit. TLD   |  |  |
| 13.                                    | Use only high-speed cassette (Green Sensitive) - to reduce exposure.   |  |  |
| 14.                                    | Everybody should be 6 feet away from x-ray tube during Mobile x-ray  |  |  |

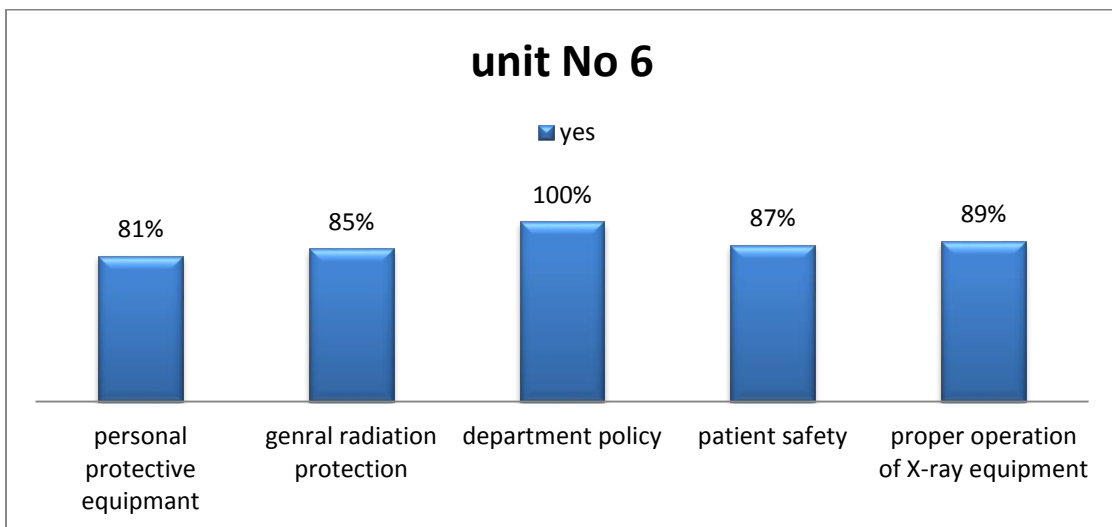
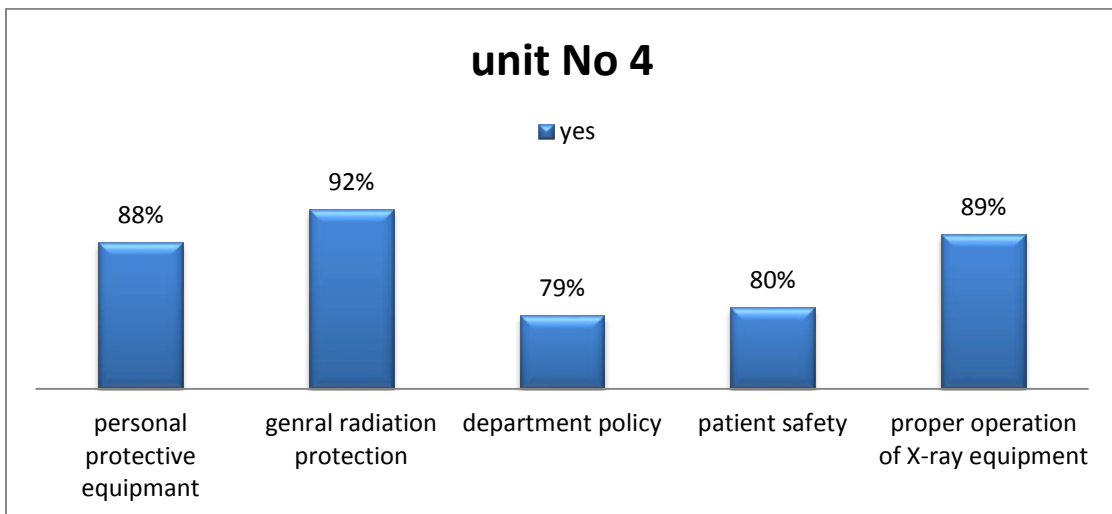
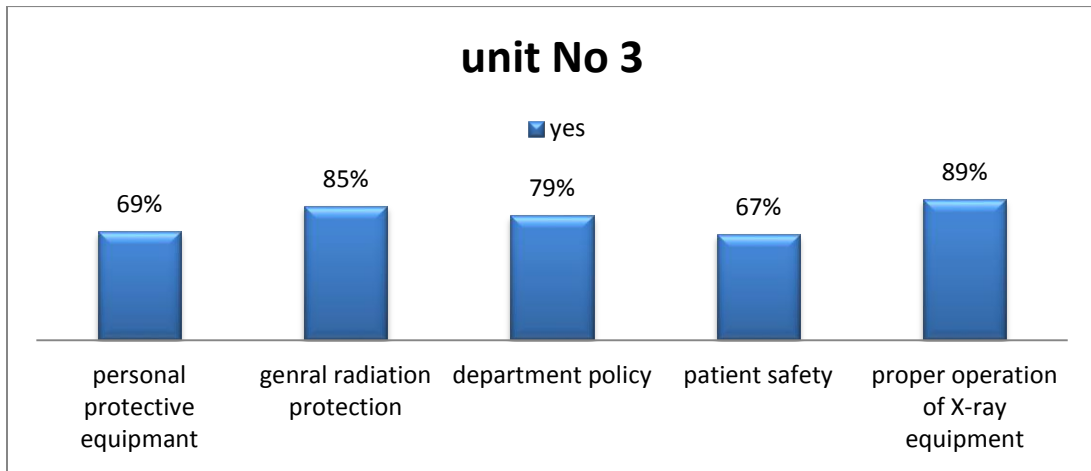
### 3. Unital Policy

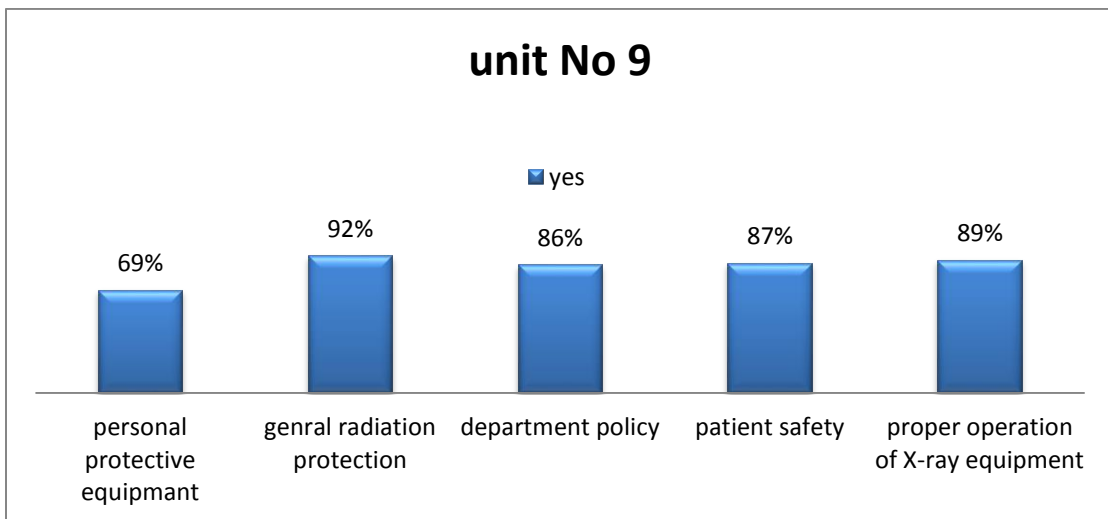
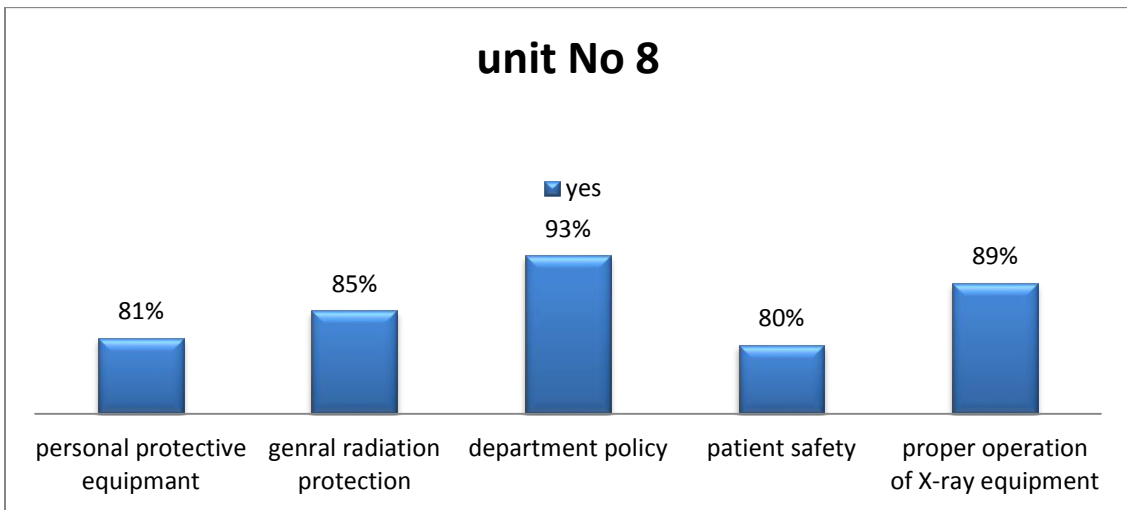
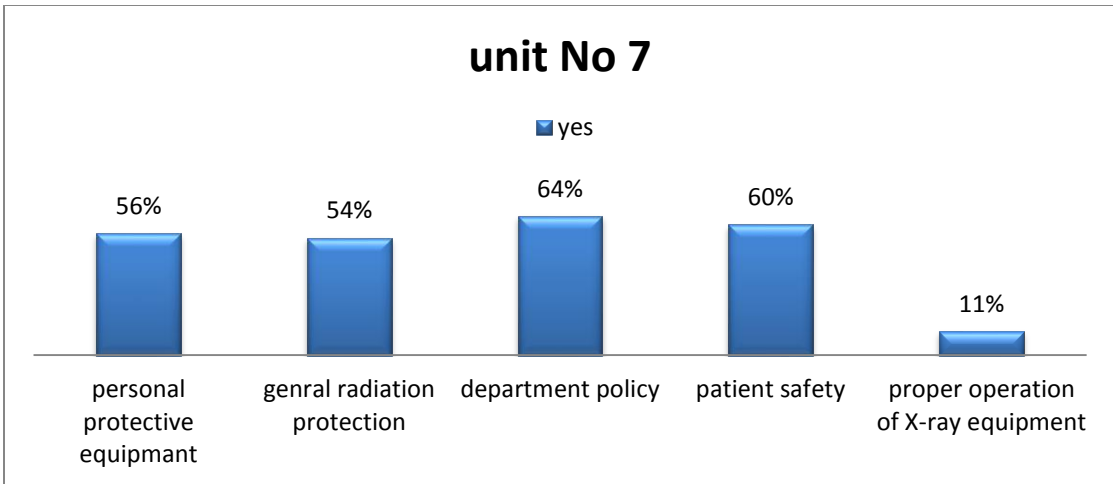
| No. | policy  |  |  |
|-----|---|--|--|
| 1.  | Incharge of radiology services is responsible for notifying the Management in case of any safety hazard.  |  |  |
| 2.  | All radiology employees shall report defective equipment, unsafe conditions, acts or safety hazards to Manager of radiology services.               |  |  |
| 3.  | Keep electrical cords clear of passage ways. Do not use electrical extension cords without prior informing the facility unit.                       |  |  |
| 4.  | All equipments and supplies must be properly stored.  |  |  |
| 5.  | Scissors, knives, pins, razors blades and other sharp instruments must be stored and used safely.   |  |  |
| 6.  | Smoking is prohibited, per hospital smoking policy.   |  |  |
| 7.  | Do not permit rubbish to accumulate.  |  |  |
| 8.  | Notify the facility unit immediately of illumination and Air conditioning effect Problems.  |  |  |
| 9.  | Furniture and equipment must be allowed adequate passage and access to exits at all times.  |  |  |
| 10. | Employee who discovers the spill should inform minor spills, such as water & chemical spill , to Housekeeping team. This shall be done immediately. |  |  |
| 11. | Report faulty equipment to the Biomedical Engineer or vendor, per policy.   |  |  |
| 12. | Obey warning signs.   |  |  |
| 13. | File drawers and cabinet doors shall be closed when not in use.   |  |  |
| 14. | Wear suitable clothing, only authorized personnel shall be allowed in X-ray room  |  |  |

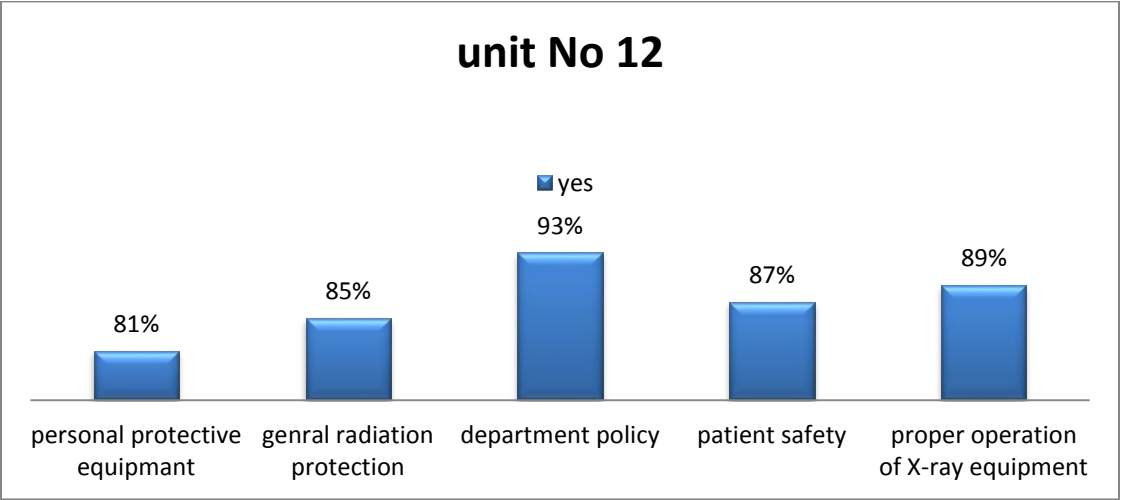
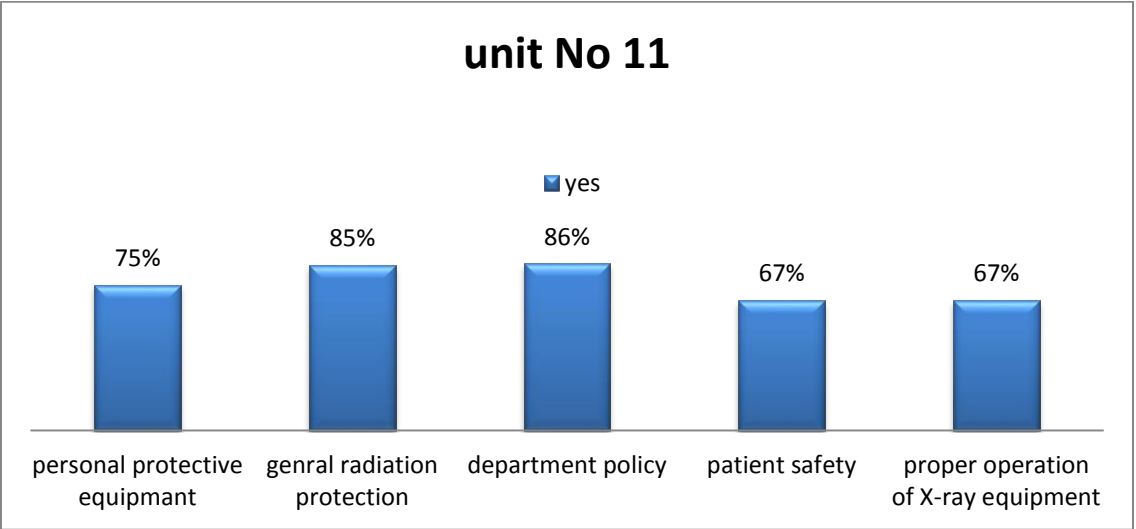
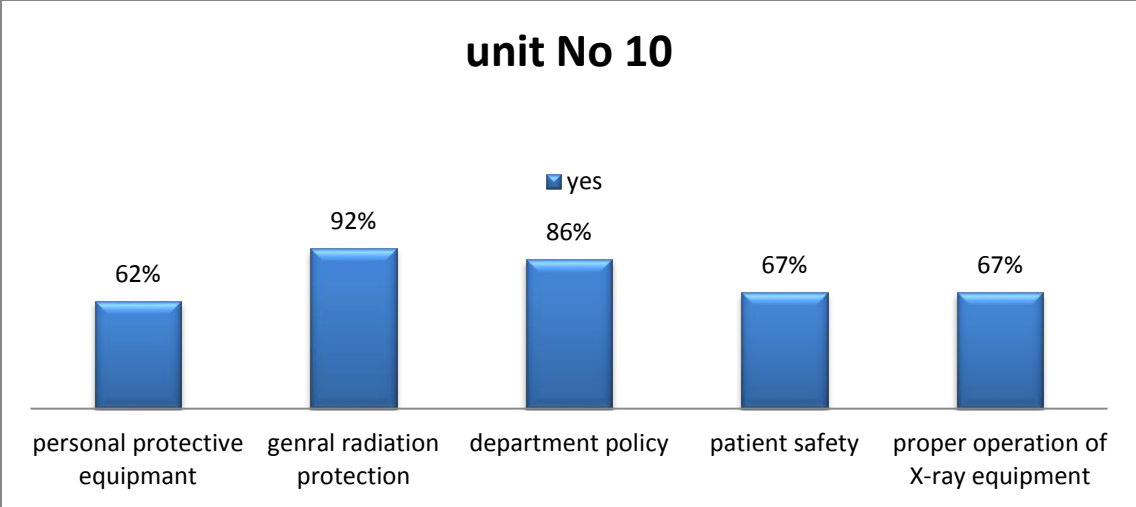
| <b>4. Patient Safety</b> |  |  |  |
|--------------------------|--|--|--|
| No.                      | Policy   |  |  |
| 1.                       | No patients shall be left unattended.  |  |  |
| 2.                       | Personal protective equipment shall be kept available at all times   |  |  |
| 3.                       | All wheelchair will have wheel locked when the wheel chair is on the lift and while the patient is entering or existing the wheelchair.  |  |  |
| 4.                       | If trolley is used for the transportation of the patient, the wheel must be locked while trolley is on lift.   |  |  |
| 5.                       | Any of the hospital employees who knowingly disregard the patients' safety by disobeying the aforementioned policies will be subject to disciplinary action by management.       |  |  |
| 6.                       | All X-ray switches shall be in a location where they cannot be accidentally energized.   |  |  |
| 7.                       | A routine check shall be made X-ray equipment before using.  |  |  |
| 8.                       | Nurse or Radiographer who calls for patient will check the correct identify of the patient.  |  |  |
| 9.                       | The X-ray tube shall never be pointed directly towards the control cubicle, In unavoidable circumstances to collimate accurately and wear lead apron and follow ALARA technique. |  |  |
| 10.                      | The doors to the X-ray room must always be kept closed.  |  |  |
| 11.                      | Return equipments to its proper location when not in use.  |  |  |
| 12.                      | Do not obstruct fire equipment. Know location of fire-righting equipment and how to use it. Know evacuation routs and what to do in case of fire.                                |  |  |
| 13.                      | Patients such as a children and pregnant women shall be shielded.  |  |  |
| 14.                      | The radiographer will ensure that all the Infant/children being radiographed have proper shielding and proper collimation of the X-ray beam to expose only the required Anatomy. |  |  |
| 15.                      | All expectant females if necessary to be X-rayed will be properly shielded   |  |  |

| <b>5. proper operation of X-Ray equipments</b> |  |   |  |
|--|--|---|--|
| No.  | Policy   |   |  |
| 1.   | Appropriate personal protective equipment (Radiation Protective devices) is to be worn where there is a risk of Radiation exposure.  |   |  |
| 2.   | Personnel monitoring devices should always be worn when working with radiographic equipment TLD.   |   |  |
| 3.   | Mechanical supporting or restraining devices shall be used when a patient or film must be held in position for radiography.  |   |  |
| 4.   | The x-ray beam should always be collimated to the smallest area consistent with clinical requirements and should always be aligned accurately with the patient and film.                     |   |  |
| 5.   | Mobile equipment should be used only for examinations where it is impractical to transfer patients to permanent radiographic installations.  |   |  |
| 6.   | The minimum source-skin distance (SSD) for all mobile radiographic x-ray units must be 30 centimeters.   |   |  |
| 7.   | When Making X-ray exposures, it is advisable to place the image intensifier closest to the region of interest. This results in better image quality and reduces risk from potential hazards. |   |  |
| 8.   | The radiation protection program is guided by the concept of keeping radiation exposure <u>A</u> s <u>L</u> ow <u>a</u> s <u>R</u> easonably <u>A</u> chievable (ALARA).                     |   |  |
| 9.   | Radiation exposure can be minimized by utilizing three basic principles  | a) <b>Time:</b> Shorter exposure time                 |  |
|  |  | b) <b>Distance:</b> Inverse square law                |  |
|  |  | c) <b>Shielding:</b> The use of appropriate shielding |  |

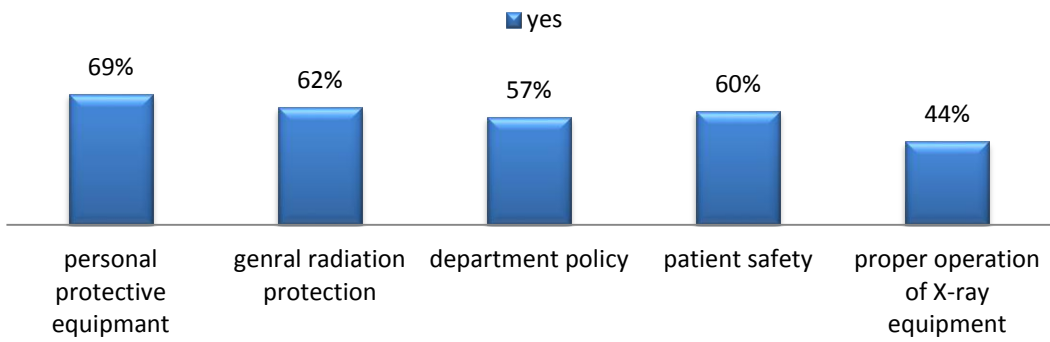
## The result of visual inspection of other units



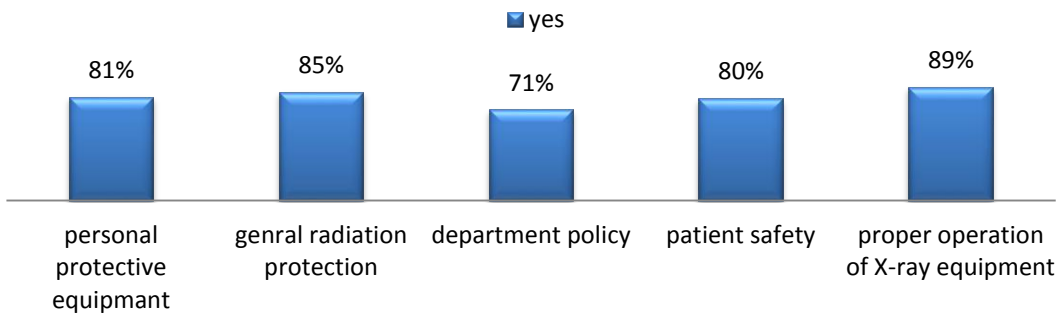




### Unit No 13



### Unit No 14



### Unit No 15

