### Medical imaging of Musa bin Jafar hospital

The imaging department of Mousabn-e-Jafar Charity Hospital has provided the best and most advanced imaging equipment to cooperate with all respected doctors to diagnose diseases. This center aims to satisfy respected patients by providing comprehensive and accurate medical imaging services in CT scan, radiology, mammography, and ultrasound.

### ➤ CT Scan

The CT Scan machine in this treatment center is a spiral multi-slice 16-detector type, which can perform all specialized CT scans and create high-quality 3D images.

The CT scan machine of this center, with a high-power tube and high-speed multi-detector gantry, has increased the resolution (image clarity) and the possibility of preparing thinner sections with more accuracy. In addition, Also, spiral technology and highly advanced software have made it possible to design and reconstruct images in D2 and D3 views of the desired area with different sections with a single exposure to the patient.

All simple and specialized CT scans (with oral and injectable contrast) are performed in this center .

Radiology

The digital radiology device of this center has a powerful tube and the ability to produce radiation with high kVP and MA. The device is equipped with the AEC automatic exposure control system, which can automatically control the irradiation time according to the desired tissue density, reducing the radiation dose of the patient Scatter and increasing the image quality. The high maneuverability of X-ray tubes and beds in all directions comforts the patient and the technologist to achieve standard and scientific radiography.

The images of this center's analog radiology device are also converted into high-quality digital images by AGFA's CR DX-M device. In this department, all general and specialized radiographs are performed highly and in compliance with standard evaluation criteria.

Radiographs of the digestive system:

- Barium Swallow
- Barium meal
- U.G.I
- Transit
- Barium enema (Single & Double contrast(

Radiographs of the urinary system:

# IVP VCUG

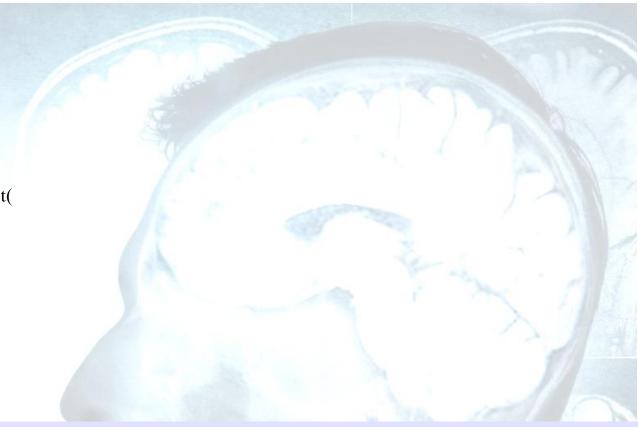
# RUG

- Retrograde Pyelography
- Retrograde Cystography
  - Sonography

Diagnostic services provided include:

- General ultrasounds:
  - Urinary tract ultrasound
  - Abdominal and digestive system ultrasound
  - Surface ultrasound
  - Breast ultrasound
  - Thyroid gland ultrasound
  - Testicular ultrasound
  - Pregnancy ultrasound

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Color Doppler ultrasound

Mammography

Mammography is a simple radiograph of breast tissue and a tool for early detection of non-palpable breast cancers.

Mammography images are digitally stored in this center. These images have high resolution (quality, clarity, and magnification). Radiology specialists can examine the image using very advanced software.

#### How to provide imaging services to patients

Images are transferred to CD or Laser Imager with the help of software facilities and printed on single-side films with very high quality.

It is possible to present all the images on CD/DVD or send a link to the PACS system specific to each patient to view them via SMS in this imaging center.

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supervisor Unit: Soheila Farrokhzad: In charge of the imaging department, in charge of health physics in the imaging department

### Service department

Providing imaging services including CT scan, mammography, ultrasound, radiography

### **Department equipment**

Devices such as:

- SIEMENS 16 SLICE SPIRAL CT SCAN SOMATOM EMOTION
- PAYAMED ELECTRONIC RADIOGRAPHY DIGITAL
- Medical Radiography ANALOG
- MULTI CASSETTE CR DX-M AGFA
- PAYAMED ELECTRONIC MAMMOGRAPHY
- Samsung Medison X8 SONOGRAPHY
- HITACHI SONOGRAPHY
- KODAK CARESTREAM IMAGER MOMMO QUALITY
- AGFA DRY STAR 5503
- Emergency trolley
- Electroshock device
- Pulse oximeter device
- Adult/child lead coat lead skirt adult/child thyroid shield gonad shield
- PACS system

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