

Department:	Radiology Department		
Document:	Multidisciplinary Policy and Procedure		
Title:	Ultrasonography Policy		
Applies To:	All Radiology Staff , Physicians and Nurses		
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1. PURPOSE:

- 1.1 To provide the fast, effective and high quality imaging services for all patients in Maternity and Children Hospital, Hafer Al Batin, Radiology Department.

2. DEFINITIONS:

- 2.1 **Ultrasound** – is safe and painless, and produces pictures of the inside of the body using sound waves. Ultrasound imaging, also called "Ultrasound scanning" or "ultrasonography", Ultrasound examination involves the use of a transducer (probe) and ultrasound gel placed directly on the skin, and there is non – ionizing radiation usage (as used in X – ray), thus there is no radiation exposure to the patient. Ultrasound can show the structure and movement of the body's internal organs, as well as blood flowing through blood vessels.
- 2.2 **TRANSDUCER** – A hand held device that sends and receives ultrasound signals.
- 2.3 **ANC** – Antenatal Care
- 2.4 **GS** – Gestational Sac
- 2.5 **Rh** – Heart Rate
- 2.6 **CRL** – Crown Rump Length
- 2.8 **GA** – Gestational Age

3. POLICY:

- 3.1 An appointment will be given to the patient with clear and complete preparation to avoid any delay in the same day of examination, and encourage the patient to come earlier (15 – 30 minutes) before the appointment time.
- 3.2 The appointment time may be postponed due to priority of the emergency cases or due to unprepared patient upon radiologist opinion.
- 3.3 All Routine ultrasound examinations are available during regular duties which is from: (Sunday to Thursday – 7:30 AM to 3:30 PM), however the last case will be at 2:30 PM considering exam and reporting time as hospital radiologists are responsible for both performing and also reporting exams).
- 3.4 While the Emergency cases, the referring physician will follow the ON – CALL schedule after discussion with radiologist during the evening, night and weekend duties which may result in changing the exam modality , changing from urgent to routine or even exam cancellation in case of non-expected benefits.
- 3.5 The referring physician of the emergency cases must be the consultant concerning with the case (surgery consultant for surgical cases, paediatric consultant for paediatric cases, orthopaedic consultant for orthopedic cases, etc.,)
 - 3.5.1 Reporting time for Ultrasound examinations is:
 - 3.5.1.1 Emergency Cases: the report will be available **Immediately**.
 - 3.5.1.2 Urgent Cases: the report will be available **24 hours**.
 - 3.5.1.3 Routine Cases: the report will be available during **48 hours**.
 - 3.5.1.4 Exceptions: some reports may be postponed for longer time waiting for more details that aids in proper reporting as referral physician opinion, laboratory results, other

radiological exams, etc., **Note: The urgent cases will be depend on the discussion between referring physician and radiologist in addition to the clear clinical data.**

- 3.6 All Ultrasound examinations should be performed in Ultrasound room at the main radiology department except for patient on ventilators, the portable US will be used.
- 3.7 All Outpatients coming to the department to perform the ultrasound should have companion especially the pediatric.
- 3.8 All Inpatients and ER patients should accompanied by staff nurse after arranging with Ultrasound nurse.
- 3.9 Preparation for the procedure will depend on the type of examination for the patient. For some scans the physician may instruct not to eat or drink for at least 6 hours before the patient appointment. For others patient may be asked to drink water until having full bladder prior to the examinations and avoid urinating so that the bladder is full when the scan begins.
- 3.10 Pediatric age group examination may be done under sedation or anesthesia and in this case will be referred back to the pediatric clinic.
- 3.11 Ultrasound Examination includes:
 - 3.11.1 Abdominal Ultrasound
 - 3.11.2 KUB Ultrasound
 - 3.11.3 Pelvic Ultrasound
 - 3.11.4 Obstetric Ultrasound
 - 3.11.5 Thyroid Ultrasound
 - 3.11.6 Neck Ultrasound
 - 3.11.7 Breast Ultrasound
 - 3.11.8 Hip Ultrasound (For DDH , Septic Arthritis)
 - 3.11.9 Trans – Cranial Ultrasound
 - 3.11.10 Musculoskeletal Ultrasound (For Septic Arthritis Or Superficial Soft Tissue Swelling)
 - 3.11.11 Testicular Ultrasound
 - 3.11.12 Vascular Doppler Ultrasound
- 3.12 Pregnancy ultrasound :
 - 3.12.1 1st trimester pregnancy ultrasound includes
GS description, fetal pole measurement (CRL) and viability.
 - 3.12.2 Routine ANC and Emergency, 2nd and 3rd Trimester pregnancy Ultrasound includes:
 - 3.12.2.1 Placental Localization
 - 3.12.2.2 Liquor Amount
 - 3.12.2.3 Fetal Heart Rate
 - 3.12.2.4 Fetal Biometry and Fetal Weight
 - 3.12.2.5 Fetal Doppler Study, If requested by the OBS/GYN Clinician
(N.B this exam is not including fetal anomalies scan).
 - 3.12.3 Detailed fetal anomalies scan
Done only at gestational age 18 – 22 weeks including detailed fetal anatomical scan. Regarding detailed Fetal Anatomy Scan, Fetal Heart's 4 chambers view can only examined with no detailed fetal echocardiography.

4. PROCEDURE:

- 4.1 Ultrasound procedures will be performed after receiving radiology request through PACS with complete and correct patient identification which is:
 - 4.1.1 Patient Name (Four names for Saudi/ Complete Name for the Non – Saudi).
 - 4.1.2 Medical Record Number or National ID Number/ Iqamah Number.
 - 4.1.3 Requested Examination.
 - 4.1.4 Complete and benefit clinical indications for the requested exam.
 - 4.1.5 Name of Referring Physician.
- 4.2 Patient identification will be verified before starting the ultrasound examination. The nurse is responsible for correctly identifying the patient to be examined.
- 4.3 The patient will be positioned on the bed and depending on the type of procedure, the patient may be asked to assume different positions.

- 4.4 In some cases, the patient may be asked to have images post – micturating in KUB or Trans – Vaginal Gynecology Scans.
- 4.5 After performing the examination, all images will be delivered to PACS and reviewed by radiologist for reporting.
- 4.6 In case of PACS errors or periodic maintenance, the request and report will be manually.

5. MATERIAL AND EQUIPMENT:

- 5.1 Ultrasound Machine
- 5.2 Ultrasound Gel

6. RESPONSIBILITIES:

- 6.1 Nurses
- 6.2 Physicians
- 6.3 Radiology Staff

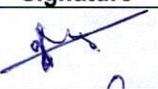
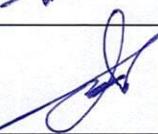
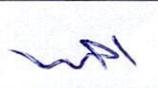
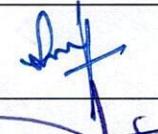
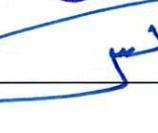
7. APPENDICES:

N/A

8. REFERENCES:

- 8.1 <https://www.radiologyinfo.org>

9. APPROVALS:

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