I. POLICY

It is the objective of the department of radiology and biomedical imaging to minimize patient dose and to avoid embryo/fetal radiation exposure to the greatest extent possible.

II. PROCEDURE

A. General Patient Radiation Protection and Safety Guidelines

1. All YNHH patients (adult and pediatric) will be provided with gonadal shielding and other appropriate lead shielding whenever applicable; Attachment I.12 A - Patient Shielding Guidelines in CT.

2. Optimal study acquisition parameters will be used, taking into consideration achieving the highest image quality at the lowest possible radiation dose.

3. Attachment I.12C-Table of Estimated Fetal Radiation Exposure for various radiology exams will be consulted as a reference on potential fetal doses.

B. Pregnancy Guidelines:

1. All Female inpatients, outpatients and ED patients who have started their menses or are between the ages of 10 and 60 undergoing a non-emergent radiology exam listed in Appendix A below (which may impart > 50 mGy to the embryo/fetus, involve intravenous contrast for MRI or radiopharmaceuticals) will be required to take a pregnancy test, unless:

   a. The patient is 18 years or older, has capacity to provide informed consent, and does not want to have a pregnancy test done then they may sign a waiver. Yale New Haven Hospital Waiver for Pregnancy Testing (F6460). Pediatric patients ages 10-17 (or their parent/guardian) cannot waive testing.

   b. The patient has a history of hysterectomy or bilateral ovarian removal. All other female patients will follow standard protocol including those with IUD, Essure device or tubal ligation as they are not 100% effective.

   c. A negative serum pregnancy test within 72 hours or urine test within 24 hours of the procedure is available for ED or outpatients. In-patients do not
need repeat testing if a negative serum or urine pregnancy test is available from the current admission.

d. A test for an inpatient or ED patient is deemed medically emergent by the referring clinician where the benefit of rapid imaging outweighs any loss of time for pregnancy testing and potential risk of fetal exposure to radiation, MRI contrast agent, or radiopharmaceutical. This can also be discussed with the consulting radiologist.

For ED and in-patients, a urine or serum pregnancy test should be performed on their inpatient or ED unit prior to the radiology test (however urine pregnancy testing in the radiology department may also be permitted if necessary). For outpatients, a point of care urine test will be performed while in the radiology department.

Either the referring physician or radiologist will place an order for the pregnancy test. Dept of Lab Medicine Attachment l.12D. Procedure for Point of Care Urine hCG Pregnancy Testing. https://ynhh.ellucid.com/documents/view/200

e. In the case of positive test findings, please call Labor & Birth for guidance and assistance with informing the patient and their referring physician of the test results. This service is available 24/7, and for all imaging sites.

(a) The York Street campus – via Labor & Birth at 688-2309
(b) The Saint Raphael campus – via beeper 0633

2. Female outpatients who are between the ages of 10 and 60 undergoing radiology exams not listed in Appendix A will be discretely asked if they are or might be pregnant. If yes, appropriate steps will be taken as outlined in section III.A of this policy and related attachments.

Appendix A.

- CT involving the abdomen and/or pelvis including CT lumbar spine
- Any exam involving intravenous MRI contrast
- Fluoroscopic exams which include the pelvis e.g.: VCUG, hysterosalpinogram, barium enema, small bowel series, lumbar puncture, Interventional Radiology procedures
- Invasive/surgical radiology procedures with anesthesia/conscious sedation; excludes IV Insertion for routine IV contrast exams
- All Nuclear Medicine and PET exams, except brain death scans which is optional. Note: all Nuclear Medicine therapy procedures require a Beta HCG; patients may not sign a waiver.

III. PREGNANCY STATUS AND ACTION

A. If a patient is determined to be pregnant, the procedure below is followed:
1. For those exams listed in Appendix A, the exam should not be performed except in life threatening emergencies.
   a. The technologist will inform the radiologist that the patient is pregnant.
   b. The radiologist will contact the referring physician to ascertain the emergent status of the exam and consult in the decision to proceed, limit or cancel the exam. The YNHH Radiation Safety Officer or radiology physicist is available for consult or to calculate fetal dose for any exams requested, especially CT and Nuclear Medicine exams.
   c. If a decision is made to proceed with the exam emergently as ordered or as modified by the radiologist, the radiologist will discuss with the patient the risk vs. benefit associated with the exam based on pregnancy status, if possible.
   d. If possible, both the patient and radiologist will sign form F1696 Consent for Operation or Special Procedure
   e. The technologist is responsible to document the pregnancy status and the radiologist or physician who authorized to proceed with the exam in the RIS Study Notes, and to scan in the YNHH consent form.
   f. The radiologist dictating the exam will include the pregnancy status and the decision to proceed with the exam in the report for documentation in the patient’s medical record.

2. For exams involving ionizing radiation listed in Appendix B, the technologist will inform the radiologist that the patient is pregnant.
   a. The radiologist will make a decision to proceed, limit or cancel the exam. The technologist will give the patient the option to discuss the exam with the radiologist if they have questions.
   b. The technologist will document the patient’s pregnancy status and the radiologist’s instructions in the Radiology Information System performing provider comments section.
   c. The radiologist dictating the exam will include the pregnancy status and the decision to proceed with the exam in the body of the report for documentation in the patient’s medical record.
   d. For exams involving ionizing radiation not listed in Appendix A or B, the exam is performed in a normal manner using patient protective shielding of the abdominal area. The technologist will document the patient’s pregnancy status in the RIS Study Notes. Written informed consent is not necessary given insignificant fetal exposure for these exams, however a radiologist will be available to discuss the exam if needed

Appendix B

- X-rays of any region of the abdomen or pelvis, including L-S spine
- Hip x-rays
- CT of the chest in the second and third trimester

B. If an outpatient is unsure if they are pregnant, they can have a point of care
urine pregnancy test performed or reschedule the exam.

1. In the case of positive test findings, please call Labor & Birth for guidance and assistance with informing the patient and their referring physician of the test results. This service is available 24/7, and for all imaging sites. Ask for the on-call attending covering the General Obstetrics Service
   (a) The York Street campus – via Labor & Birth at 688-2309
   (b) The Saint Raphael campus – via Labor & Birth at 789-3461

C. If it is discovered that a patient is pregnant after the exam is performed:

   1. The YNHH Radiation Safety Officer or radiology physicist should be contacted for calculating fetal dose.

   2. A patient incident report must be completed in RL Solutions Event Reporter.

   3. The radiologist will be notified and an addendum will be added to the exam report to document discussions with the referring physician and/or patient, and fetal dose, if indicated.

IV. DOCUMENTATION

   A. Technologist: The technologist is responsible for documentation in the Radiology Information System Study Notes.

   B. Radiologist: The radiologist is responsible for documentation in the body of the exam report.
To alleviate patient/family anxiety the CT Technologist will shield the pediatric patient while performing CT Scans unless the area being imaged is in question.

The adult patients will not be routinely provided with shielding. In case of special instructions or per patient request, a lead apron may be used if it does not interfere with the imaged...
In all situations, the shield has to be carefully placed so that it will not interfere with the imaged area.
DEPT OF LAB MEDICINE POC Policy and Procedure Manual

TITLE: Urine hCG using the Quidel Quickvue
https://ynhh.ellucid.com/documents/view/200

PROCEDURE

1. REMOVE TEST CASSETTE FROM POUCH.
   Place on a clean, dry, level surface.

2. DISPENSE THREE DROPS OF SPECIMEN INTO SAMPLE WELL.
   The specimen should be at room temperature.

3. READ RESULTS AFTER THREE MINUTES

RESULTS REPORTING

1. POSITIVE RESULT INDICATED BY PINK-PURPLE LINE NEXT TO “T”, ALONG WITH BLUE LINE NEXT TO “C” IN RESULTS WINDOW.

2. NEGATIVE RESULT INDICATED BY BLUE LINE NEXT TO “C” AND NO LINE NEXT TO “T” IN RESULTS WINDOW.

3. IF NO BLUE LINE APPEARS NEXT TO “C”, THE TEST IS INVALID AND MUST BE REPEATED.

4. RECORD AND INITIAL RESULT IN PATIENT RECORD: URINE HCG(+) OR URINE HCG(-)

DO NOT USE KIT BEYOND EXPIRATION DATE ON OUTSIDE OF KIT CARTON.

Note: If any problems occur consult the full procedure or consult the unit Point-of-Care Testing coordinator at 688-5212.
I understand that pregnancy testing is offered to all female patients 18 through 60 years of age. I have been informed of the role of pregnancy testing in planning my treatment or procedure. I understand that the treatment/procedure may put a possible pregnancy at risk for harm. Identifying an unrecognized pregnancy will allow me and/or my physicians to make an informed decision before having a treatment/procedure that could be harmful to myself and/or my fetus.

Understanding this, I decline to have a pregnancy test performed.

Patient Signature

Date________________ Time________________