

Effective Date: May 10, 2021	Title: Standard of Care for Premenopausal Women Entering the ED with Symptoms that May Require CT and/or Pelvic Ultrasound
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1) Establish pregnancy status:

- The ED will order and collect a **QUALITATIVE urine test** ASAP. The urine pregnancy test should be prioritized since results are available within 10 minutes of urine collection compared with delays of up to 2 hours or more for the serum beta hCG.
- If pregnancy is already known or strongly suspected, a **QUANTITATIVE serum beta hCG** will be ordered and collected ASAP due to higher sensitivity and to prevent downstream diagnostic delays.
- The urine pregnancy test does not need to be repeated if the patient has had a verifiable positive pregnancy test prior to ED admission.
- A **QUANTITATIVE serum beta hCG** should be ordered on all patients who have a positive urine pregnancy (either in the ED or by verifiable outside documentation).

2) If the QUALITATIVE urine pregnancy test is NEGATIVE:

- Proceed with CT and/or ultrasound at ED discretion without delay (so long as other pre-imaging criteria are met).

3) If the QUALITATIVE urine pregnancy test is POSITIVE:

- The ED will order and collect a **QUANTITATIVE serum beta hCG** ASAP (if not done so already).
- The ultrasound tech may proceed with "OB less than 14 weeks" transpelvic and transvaginal ultrasound ("pregnant ultrasound") prior to resulting of serum beta hCG.
- If the QUANTITATIVE serum beta hCG is still pending by the completion of the pelvic ultrasound, the study may be dictated and signed OR discussed directly with the ED clinician, at the radiologist's discretion. If the serum beta hCG result would substantially impact interpretation of the pelvic ultrasound, the radiologist may wait to finalize the exam until the test is resulted.
- Ultrasound technologists should at least be aware of the QUALITATIVE urine pregnancy test results prior to performing the exam and when discussing findings with the radiologist after completion. Pregnancy status should be clearly documented on the technologist's ultrasound results sheet (i.e., "positive urine pregnancy" and the value of the serum beta hCG if available).

4) Extenuating circumstances:

- A patient may not be able to provide a prompt urine sample and/or there may be unexpected delays in collecting and/or resulting the serum beta hCG.
- In these cases, radiology will not delay performing the ultrasound; however, it is even more important in these rare circumstances that the serum beta hCG is collected by the ED ASAP.
- If this occurs, the ultrasound technologist should document on their results sheet that pregnancy status is "**UNKNOWN**" at the time the exam was performed.
- Direct communication between the radiologist and attending ED physician is encouraged in cases where the result of a pending serum beta hCG may impact diagnosis and/or patient care.

5) SUMMARY:

- All pre-menopausal patients with symptoms requiring further medical imaging such as pelvic ultrasound and/or CT must first have pregnancy status established either QUALITATIVELY with a urine test and/or QUANTITATIVELY with a serum beta HCG.
- A QUANTITATIVE serum beta hCG will be ordered and collected ASAP on all patients who are known or strongly suspected to be pregnant in order to optimize patient care and to prevent downstream diagnostic delays.
- Ultrasound technologists should be aware of pregnancy status prior to performing a premenopausal pelvic ultrasound but will not delay performing the exam for a pending serum beta hCG or under extenuating circumstances where pregnancy status remains UNKNOWN.
- Direct communication between the radiologist and attending ED physician is encouraged in cases where the result of a pending serum beta hCG may impact diagnosis and/or patient care.