

HEALTH EVIDENCE REVIEW COMMISSION (HERC)

COVERAGE GUIDANCE: ROUTINE ULTRASOUND IN PREGNANCY

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HERC COVERAGE GUIDANCE

Routine ultrasound for average risk pregnant women should be covered only:

- Once in the first trimester for the purpose of identifying fetal aneuploidy or anomaly (between 11 and 13 weeks of gestation) and/or dating confirmation. In some instances, if a patient's LMP is truly unknown, a dating ultrasound may be indicated prior to an aneuploidy screen.
- Once for the purpose of anatomy screening after 18 weeks gestation

Only one type of routine prenatal ultrasound should be covered in a single day (i.e., transvaginal or abdominal).

RATIONALE FOR GUIDANCE DEVELOPMENT

The HERC selects topics for guideline development or technology assessment based on the following principles:

- Represents a significant burden of disease
- Represents important uncertainty with regard to efficacy or harms
- Represents important variation or controversy in clinical care
- Represents high costs, significant economic impact
- Topic is of high public interest

Coverage guidance development follows to translate the evidence review to a policy decision. Coverage guidance may be based on an evidence-based guideline developed by the Evidence-based Guideline Subcommittee or a health technology assessment developed by the Health Technology Assessment Subcommittee. In addition, coverage guidance may utilize an existing evidence report produced by one of HERC's trusted sources, generally within the last three years.

EVIDENCE SOURCE

Washington State Health Care Authority Health Technology Assessment Program. (2010). Ultrasonography (ultrasound) in pregnancy: Health technology assessment. Retrieved from http://www.hta.hca.wa.gov/documents/final_report_ultrasound.pdf

The summary of evidence in this document is derived directly from this evidence source, and portions are extracted verbatim.

SUMMARY OF EVIDENCE

Clinical Background

Ultrasound (US) is used in prenatal care as a diagnostic tool for monitoring fetal development and maternal health outcomes. During the first trimester (6 days of gestation up to 13 weeks) an US may be performed for a variety of reasons, including estimation of gestational age diagnosis, evaluation of multiple gestations, or measurement of markers for fetal aneuploidy (abnormal chromosome number). In the second trimester (between 16 weeks and 22 weeks), US is performed to assess anatomical fetal growth and development (fetal anatomical survey), screen for markers for fetal aneuploidy, estimate fetal weight, detect and evaluate gynecological abnormalities, and detect fetal anatomical abnormalities. In the United States, routine US is not typically performed in the third trimester unless the pregnancy is considered a high-risk pregnancy or a specific indication has developed.

Although high-risk pregnancies are not precisely defined, they include such conditions as age ≥ 35 years at delivery, diabetes mellitus, asthma, hypertension, previous pregnancy loss, preeclampsia, fetal intrauterine growth restriction (IUGR), premature rupture of membranes, multiple pregnancy, preterm labor, and postterm pregnancy. All of these conditions may require US to monitor either fetal or maternal well-being. In addition, assessment of cervical length by transvaginal ultrasound (TVU) has been tested as a screening method for women at risk of preterm labor. If short cervix is confirmed, the clinician can administer treatment to delay birth and to prevent perinatal respiratory distress.

Evidence Review

Accuracy: The literature suggests that US has variable accuracy, depending on the target condition. As a screening tool, it is often combined with other tests. Sensitivities of 40% to 99% have been reported, but information about specificity, positive predictive value, and negative predictive value is limited. Evidence addressing the differential accuracy of transabdominal vs. transvaginal US was not identified.

Effectiveness in High-Risk Pregnancy: The evidence provides some support for the use of Doppler US to monitor high-risk patients (which conditions are considered high risk are not specified). The use of TVU to identify patients in need of prophylactic treatment because of imminent risk of preterm birth is also supported by the evidence, but the use of TVU surveillance in women with a history of preterm birth is not.

Effectiveness in Low-Risk Pregnancy, Early Screening: Routine US in early pregnancy (< 24 weeks) does not change patient management, substantially alter delivery modes, or improve health outcomes, at least not in high-resource settings. Routine US doubles the rate of abortion for fetal anomaly, but the estimated absolute increase is 0.10 percentage point.

Effectiveness in Low-Risk Pregnancy, Late Screening: Evidence has not shown routine US in late pregnancy (> 24 weeks) to change patient management, affect delivery mode, or improve health outcomes.

Safety: Evidence for major outcomes has shown US to be a reasonably safe procedure with no serious short-term adverse effects. There is no association between US and childhood cancers, and no impact on developmental outcomes after birth with the exception of an increase in the risk of non-right-handedness in boys.

Differential Effectiveness and Safety: Routine US performed between 14 weeks and 24 weeks (second trimester) is most likely to detect multiple births and to reduce the frequency of induction of labor, compared with US at other gestational ages. However, there is no differential effect by gestational age on perinatal mortality.

[\[Evidence Source\]](#)

Overall Summary

The accuracy of ultrasound is variable, and it may be helpful in monitoring some high-risk pregnancies. In the case of identified fetal anomalies, ultrasound can alter pregnancy management. Otherwise, ultrasound does not change treatment plans, alter delivery modes or improve health outcomes in low-risk pregnancies.

PROCEDURE

Obstetrical ultrasound

DIAGNOSES

Pregnancy

APPLICABLE CODES

CODES	DESCRIPTION
ICD-9 Diagnosis Codes	
V22	Normal pregnancy V22.0. Supervision of normal first pregnancy V22.1 Supervision of other normal pregnancy V22.2 Pregnant state, incidental
V23	Supervision of high-risk pregnancy V23.0 Pregnancy with history of V23.1 Pregnancy with history of trophoblastic disease

CODES	DESCRIPTION
ICD-9 Diagnosis Codes	
	V23.2 Pregnancy with history of abortion V23.3 Grand multiparity V23.4 Pregnancy with other poor obstetric history V23.41 Pregnancy with history of pre-term labor V23.49 Pregnancy with other poor obstetric history V23.5 Pregnancy with other poor reproductive history V23.7 Insufficient prenatal care V23.8 Other high-risk pregnancy V23.81 Elderly primigravida V23.82 Elderly multigravida V23.83 Young primigravida V23.84 Young multigravida V23.85 Pregnancy resulting from assisted reproductive technology V23.86 Pregnancy with history of in utero procedure during previous pregnancy V23.89 Other high-risk pregnancy V23.9 Unspecified high-risk pregnancy
640	Hemorrhage in early pregnancy 640.0 Threatened abortion 640.8 Other specified hemorrhage in early pregnancy 640.9 Unspecified hemorrhage in early pregnancy
641	Antepartum hemorrhage, abruptio placentae, and placenta previa 641.0 Placenta previa without hemorrhage 641.1 Hemorrhage from placenta previa 641.2 Premature separation of placenta 641.3 Antepartum hemorrhage associated with coagulation defects 641.8 Other antepartum hemorrhage 641.9 Unspecified antepartum hemorrhage
642	Hypertension complicating pregnancy, childbirth, and the puerperium 642.0 Benign essential hypertension complicating pregnancy, childbirth, and the puerperium 642.1 Hypertension secondary to renal disease, complicating pregnancy, childbirth, and the puerperium 642.2 Other pre-existing hypertension complicating pregnancy, childbirth, and the puerperium 642.3 Transient hypertension of pregnancy 642.4 Mild or unspecified pre-eclampsia 642.5 Severe pre-eclampsia 642.6 Eclampsia 642.7 Pre-eclampsia or eclampsia superimposed on pre-existing hypertension 642.9 Unspecified hypertension complicating pregnancy, childbirth, or the puerperium
643	Excessive vomiting in pregnancy 643.0 Mild hyperemesis gravidarum 643.1 Hyperemesis gravidarum with metabolic disturbance 643.2 Late vomiting of pregnancy 643.8 Other vomiting complicating pregnancy 643.9 Unspecified vomiting of pregnancy
644	Early or threatened labor 644.0 Threatened premature labor

CODES	DESCRIPTION
ICD-9 Diagnosis Codes	
	644.1 Other threatened labor 644.2 Early onset of delivery
645	Late pregnancy 645.1 Post term pregnancy 645.2 Prolonged pregnancy
646	Other complications of pregnancy, not elsewhere classified 646.0 Papyraceous fetus 646.1 Edema or excessive weight gain in pregnancy, without mention of hypertension 646.2 Unspecified renal disease in pregnancy, without mention of hypertension 646.3 Recurrent pregnancy loss 646.4 Peripheral neuritis in pregnancy 646.5 Asymptomatic bacteriuria in pregnancy 646.6 Infections of genitourinary tract in pregnancy 646.7 Liver disorders in pregnancy 646.8 Other specified complications of pregnancy 646.9 Unspecified complication of pregnancy
647	Infectious and parasitic conditions in the mother classifiable elsewhere, but complicating pregnancy, childbirth, or the puerperium 647.0 Syphilis 647.1 Gonorrhea 647.2 Other venereal diseases 647.3 Tuberculosis 647.4 Malaria 647.5 Rubella 647.6 Other viral diseases 647.8 Other specified infectious and parasitic diseases 647.9 Unspecified infection or infestation
648	Other current conditions in the mother classifiable elsewhere, but complicating pregnancy, childbirth, or the puerperium 648.0 Diabetes mellitus 648.1 Thyroid dysfunction 648.2 Anemia 648.3 Drug dependence 648.4 Mental disorders 648.5 Congenital cardiovascular disorders 648.6 Other cardiovascular diseases 648.7 Bone and joint disorders of back, pelvis, and lower limbs 648.8 Abnormal glucose tolerance 648.9 Other current conditions classifiable elsewhere
649	Other conditions or status of the mother complicating pregnancy, childbirth, or the puerperium 649.0 Tobacco use disorder complicating pregnancy, childbirth, or the puerperium 649.1 Obesity complicating pregnancy, childbirth, or the puerperium 649.2 Bariatric surgery status complicating pregnancy, childbirth, or the puerperium 649.3 Coagulation defects complicating pregnancy, childbirth, or the puerperium 649.4 Epilepsy complicating pregnancy, childbirth, or the puerperium 649.5 Spotting complicating pregnancy 649.6 Uterine size date discrepancy

CODES	DESCRIPTION
ICD-9 Diagnosis Codes	
	649.7 Cervical shortening
651	Multiple gestation 651.0 Twin pregnancy 651.1 Triplet pregnancy 651.2 Quadruplet pregnancy 651.3 Twin pregnancy with fetal loss and retention of one fetus 651.4 Triplet pregnancy with fetal loss and retention of one or more fetus(es) 651.5 Quadruplet pregnancy with fetal loss and retention of one or more fetus(es) 651.6 Other multiple pregnancy with fetal loss and retention of one or more fetus(es) 651.7 Multiple gestation following (elective) fetal reduction 651.8 Other specified multiple gestation 651.9 Unspecified multiple gestation
652	Malposition and malpresentation of fetus 652.0 Unstable lie 652.1 Breech or other malpresentation successfully converted to cephalic presentation 652.2 Breech presentation without mention of version 652.3 Transverse or oblique presentation 652.4 Face or brow presentation 652.5 High head at term 652.6 Multiple gestation with malpresentation of one fetus or more 652.7 Prolapsed arm 652.8 Other specified malposition or malpresentation 652.9 Unspecified malposition or malpresentation
653	Disproportion 653.0 Major abnormality of bony pelvis, not further specified 653.1 Generally contracted pelvis 653.2 Inlet contraction of pelvis 653.3 Outlet contraction of pelvis 653.4 Fetopelvic disproportion 653.5 Unusually large fetus causing disproportion 653.6 Hydrocephalic fetus causing disproportion 653.7 Other fetal abnormality causing disproportion 653.8 Disproportion of other origin 653.9 Unspecified disproportion
654	Abnormality of organs and soft tissues of pelvis 654.0 Congenital abnormalities of uterus 654.1 Tumors of body of uterus 654.2 Previous cesarean delivery 654.3 Retroverted and incarcerated gravid uterus 654.4 Other abnormalities in shape or position of gravid uterus and of neighboring structures 654.5 Cervical incompetence 654.6 Other congenital or acquired abnormality of cervix 654.7 Congenital or acquired abnormality of vagina 654.8 Congenital or acquired abnormality of vulva 654.9 Other and unspecified
655	Known or suspected fetal abnormality affecting management of mother

CODES	DESCRIPTION
ICD-9 Diagnosis Codes	
	655.0 Central nervous system malformation in fetus 655.1 Chromosomal abnormality in fetus 655.2 Hereditary disease in family possibly affecting fetus 655.3 Suspected damage to fetus from viral disease in the mother 655.4 Suspected damage to fetus from other disease in the mother 655.5 Suspected damage to fetus from drugs 655.6 Suspected damage to fetus from radiation 655.7 Decreased fetal movements 655.8 Other known or suspected fetal abnormality, not elsewhere classified 655.9 Unspecified
656	Other known or suspected fetal and placental problems affecting management of mother 656.0 Fetal-maternal hemorrhage 656.1 Rhesus isoimmunization 656.2 Isoimmunization from other and unspecified blood-group incompatibility 656.3 Fetal distress 656.4 Intrauterine death 656.5 Poor fetal growth 656.6 Excessive fetal growth 656.7 Other placental conditions 656.8 Other specified fetal and placental problems 656.9 Unspecified fetal and placental problem
657	Polyhydramnios
658.0	Oligohydramnios
659.4	Grand multiparity
659.5	Elderly primigravida
659.6	Elderly multigravida
659.7	Abnormality in fetal heart rate or rhythm
678	Other fetal conditions 678.0 Fetal hematologic conditions 678.1 Fetal conjoined twins
679	Complications of in utero procedures 679.0 Maternal complications from in utero procedure 679.1 Fetal complications from in utero procedure
ICD-9 Volume 3 (procedure codes)	
None	

CODES	DESCRIPTION
CPT Codes	
76801	Ultrasound, pregnant uterus, real time with image documentation, fetal and maternal evaluation, first trimester (< 14 weeks 0 days), transabdominal approach; single or first gestation
76802	each additional gestation (+76801)
76805	Ultrasound, pregnant uterus, real time with image documentation, fetal and maternal evaluation, after first trimester (≥ 14 weeks 0 days), transabdominal approach; single

CODES	DESCRIPTION
CPT Codes	
	or first gestation
76810	each additional gestation (+76805)
76811	Ultrasound, pregnant uterus, real time with image documentation, fetal and maternal evaluation plus detailed fetal anatomic examination, transabdominal approach; single or first gestation
76812	each additional gestation (+76811)
76813	Ultrasound, pregnant uterus, real time with image documentation, first trimester fetal nuchal translucency measurement, transabdominal or transvaginal approach; single or first gestation
76814	each additional gestation (+76813)
76815	Ultrasound, pregnant uterus, real time with image documentation, limited (eg, fetal heart beat, placental location, fetal position and/or qualitative amniotic fluid volume), 1 or more fetuses
76816	Ultrasound, pregnant uterus, real time with image documentation, follow-up (eg, re-evaluation of fetal size by measuring standard growth parameters and amniotic fluid volume, re-evaluation of organ system(s) suspected or confirmed to be abnormal on a previous scan), transabdominal approach, per fetus
76817	Ultrasound, pregnant uterus, real time with image documentation, transvaginal
76818	Fetal biophysical profile; with non-stress testing
76819	without non-stress testing
HCPCS Codes	
None	

Note: Inclusion on this list does not guarantee coverage

Coverage guidance is prepared by the Health Evidence Review Commission (HERC), HERC staff, and subcommittee members. The evidence summary is prepared by the Center for Evidence-based Policy at Oregon Health & Science University (the Center). This document is intended to guide public and private purchasers in Oregon in making informed decisions about health care services.

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