

Health Benchmarks[®] Program

Clinical Quality Indicator Specification 2011

Measure Title	PRENATAL SCREENING: SCREENING FOR HIV IN PREGNANCY		
Disease State	Pregnancy	Indicator Classification¹	Preventive Care
Strength of Recommendation²	A		
Organizations Providing Recommendation	American College of Obstetricians and Gynecologists American Medical Association Centers for Disease Control and Prevention Society of Obstetricians and Gynecologists of Canada United States Preventive Services Task Force		
Clinical Intent	To ensure that all members who delivered an infant during the measurement year were screened for HIV prior to delivery.		
Background	<p>Disease Burden</p> <ul style="list-style-type: none"> • The CDC estimates that between 120,000 and 160,000 women are currently infected with HIV in the United States and that of these women, 6,000-7,000 will give birth each year.[1] • Worldwide, about 370,000 babies get HIV from their mothers in 2009.[2] • Without appropriate treatment, approximately 25% of HIV positive women will transmit the virus to their infants during pregnancy, labor or breastfeeding.[1] <p>Reason for Indicated Intervention or Treatment</p> <ul style="list-style-type: none"> • The rate of vertical transmission of HIV from mother to infant may be reduced from an average of 25% to under 2% using a combination of interventions including the use of highly active antiretroviral (HAART) therapy, delivery via caesarian section, and the avoidance of breastfeeding.[3] • Reliance upon current knowledge of maternal HIV status or physician assessment of risk status may be insufficient in assessing vertical transmission risk to the infant: <ul style="list-style-type: none"> ○ One in four women with HIV is unaware of her status.[4] ○ Approximately 80% of HIV infections in women occur via heterosexual intercourse.[5] • Knowledge of maternal HIV status is also important for monitoring in the health of infants who do become HIV positive, despite prophylactic techniques. Early use of antiretroviral therapy results in lower child mortality, decreased HIV progression and improved survival at three years.[6, 7] • HIV is easily and accurately detected; current testing techniques have sensitivity and specificity of greater than 99.5%.[8] 		

Evidence supporting Intervention or Treatment

- Regular testing of pregnant women since 1992 has resulted in a 93% reduction rate in the number of children born with HIV, and a corresponding decline in children living with AIDS.[1]
- Additionally, the proportion of infected infants receiving antiretroviral therapy over this period has increased from 7% to 91%.[9]
- Because of the high lifetime costs involved with treating HIV/AIDS, prevention of transmission via screening all pregnant women is highly cost effective, even in areas of low HIV prevalence.[10]

Clinical Recommendations

- The Centers for Disease Control recommends that all pregnant women be screened for HIV as part of routine prenatal care.[11]
- The American Medical Association recommends HIV screening in all pregnant women by the first or second prenatal visit.[12]
- The United States Preventive Services Task Force recommends that all pregnant women be screened for HIV (Level of Evidence A).[13]
- The American College of Obstetricians and Gynecologists state that: “Pregnant women universally should be tested for HIV infection with patient notification as part of the routine battery of prenatal blood tests unless they decline the test (ie, opt-out approach).”[14]
- The SOGC clinical guideline also recommends screening for all pregnant women (level of evidence II-B).[15]

Source IMS Health

Denominator

Denominator Definition Continuously enrolled women who delivered a full term baby vaginally or via cesarean section during the measurement year.

Denominator Index Date First instance of vaginal or cesarean delivery during the first 358 days of the measurement year.

Denominator Encounters/Claims Criteria CPT-4 code(s): 59400, 59409, 49410, 59510, 59514, 59515, 59610, 59612, 59614, 59618, 59620, 59622

ICD-9 diagnosis codes: 642.01, 642.02, 642.04, 642.11, 642.12, 642.14, 642.21, 642.22, 642.24, 642.31, 642.32, 642.41, 642.42, 642.44, 642.91, 643.01, 643.11, 643.21, 643.81, 643.91, 645.11, 645.21, 646.01, 646.41, 646.42, 646.51, 646.52, 646.54, 646.71, 646.81, 646.82, 646.91, 647.01, 647.02, 647.12, 647.21, 647.22, 647.31, 647.32, 647.41, 647.42, 647.51, 647.52, 647.61, 647.62, 647.81, 647.82, 647.91, 647.92, 648.11, 648.14, 648.21, 648.22, 648.41, 648.42, 648.51, 648.52, 648.61, 648.62, 648.71, 648.72, 648.81, 648.82, 648.84, 648.91, 648.92, 650, 651.01, 651.11, 651.21, 651.31, 651.41, 651.51, 651.61, 651.81, 651.91, 652.01, 652.21, 652.31, 652.41, 652.51, 652.81, 653.01, 653.11, 653.21, 653.31, 653.41, 653.51, 653.61, 653.71, 653.81, 653.91, 654.01, 654.02, 654.11, 654.12, 654.14, 654.21, 654.31, 654.32, 654.41, 654.42, 654.71, 654.72, 654.81, 654.82, 654.91,

654.92, 659.41, 659.51, 659.61, 660.01, 660.11, 660.21, 660.31, 660.41, 660.51, 660.91, 661.01, 661.11, 661.21, 661.31, 661.41, 661.91, 662.01, 662.11, 662.21, 662.31, 664.01, 664.11, 644.21, 664.31, 664.41, 664.51, 664.81, 664.91, 665.22, 665.24, 665.31, 665.41, 665.51, 666.61, 665.71, 665.81, 665.91, 666.02, 666.12, 666.31, 667.02, 667.04, 667.12, 667.14, 669.51, 669.61, 669.71, 768.2-768.4, V27.0-V27.6, V30.xx, V31.xx, V34.xx

Denominator Exclusion

Denominator Exclusion Definition Women diagnosed with HIV/AIDS any time in the member's history prior to the 10 months before the index date.

Denominator Exclusion Claims Criteria CPT-4 category II code(s): 0575F, 3490F, 3492F, 3494F, 3495F, 3496F, 3498F, 3500F, 3502F, 3503F, 4270F, 4271F, 4276F

DRG code(s): 488, 489, 490

ICD-9 diagnosis code(s): 042, 079.53, V08

MS-DRG code(s): 969, 970, 974, 975, 976, 977

Numerator

Numerator Definition Women who received HIV counseling, or an HIV screening test 0-10 months prior to the index date; women who had a CD4 count and an HIV RNA test 0-10 months prior to the index date; women who were diagnosed with HIV during the 0-10 months prior to the index date.

Numerator Claims Criteria CPT-4 category-II code(s): 0575F, 3292F, 3490F, 3492F, 3494F, 3495F, 3496F, 3497F, 3498F, 3500F, 3502F, 3503F, 4270F, 4271F, 4276F, 0023T*

DRG code(s): 488, 489, 490

HCPCS code(s): G8500, S3645

ICD-9 diagnosis code(s): 042, 079.53, 86360, 86361, 86689, 86701, 86703, 87390, 87534-87536, 87539, 87901, 87903, 87904, V08, V65.44

MS-DRG code(s): 969, 970, 974, 975, 976, 977

* Code is retired, but is appropriate for retrospective analysis

Physician Attribution

Physician Attribution Description Score the physician who delivered the infant on the index date.

- References**
1. CDC. *Pregnancy and Childbirth*. HIV/AIDS topics 2007 [cited 2007 August 20]; Available from: <http://www.cdc.gov/hiv/topics/perinatal/>.
 2. WHO. *Mother-to-child transmission of HIV*. 2010 [cited 2010 Dec 28];

- Available from: <http://www.who.int/hiv/topics/mtct/en/index.html>.
3. Gray, G.E. and J.A. McIntyre, *Effect of HIV on women*. AIDS Read, 2006. **16**(7): p. 365-8, 373-7.
 4. Glynn K, R.P. *Estimated HIV prevalence in the United States at the end of 2003 [Abstract T1-B1101]*. in *Proceedings of the 2005 National HIV Prevention Conference*. 2005. Atlanta, GA.
 5. CDC. *HIV/AIDS Surveillance Report, 2004.*, Vol 16. 2005 August 19, 2007 [cited; 1-46].
 6. Gortmaker, S.L., et al., *Effect of combination therapy including protease inhibitors on mortality among children and adolescents infected with HIV-1*. N Engl J Med, 2001. **345**(21): p. 1522-8.
 7. Berk, D.R., et al., *Temporal trends in early clinical manifestations of perinatal HIV infection in a population-based cohort*. Jama, 2005. **293**(18): p. 2221-31.
 8. Dax, E.M. and A. Arnott, *Advances in laboratory testing for HIV*. Pathology, 2004. **36**(6): p. 551-60.
 9. Abrams, E.J., et al., *Aging cohort of perinatally human immunodeficiency virus-infected children in New York City*. New York City Pediatric Surveillance of Disease Consortium. Pediatr Infect Dis J, 2001. **20**(5): p. 511-7.
 10. Branson, B., et al. *Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings*. 2006 [cited 2010 Dec 28]; Available from: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm?s_cid=.
 11. Branson, B.M., et al., *Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings*. MMWR Recomm Rep, 2006. **55**(RR-14): p. 1-17; quiz CE1-4.
 12. *Prenatal Testing*, in *Clinical Performance Measures*. 2005, American Medical Association: Shawnee Mission, KS.
 13. *Screening for HIV: recommendation statement*. Am Fam Physician, 2005. **72**(11): p. 2287-92.
 14. *ACOG committee opinion number 304, November 2004. Prenatal and perinatal human immunodeficiency virus testing: expanded recommendations*. Obstet Gynecol, 2004. **104**(5 Pt 1): p. 1119-24.
 15. Keenan-Lindsay, L., et al., *HIV screening in pregnancy*. J Obstet Gynaecol Can, 2006. **28**(12): p. 1103-12.

¹ **Indicator Classification** (Adapted from Health Plan Employer Data Information Set (HEDIS®) technical specifications)

Diagnosis	Measures applicable to patients receiving diagnostic workups for a symptom or condition that delineate appropriate laboratory or radiological testing to be performed (e.g. evaluation of thyroid nodule; pregnancy test in patients with vaginal bleeding or abdominal pain)
Effectiveness of Care	
Prevention	Measures applicable to asymptomatic individuals that are designed to prevent the onset of the targeted condition (e.g. immunizations).
Screening	Measures applicable to asymptomatic patients who have risk factors or pre-clinical disease, but in whom the condition has not become clinically apparent (e.g. pap smears; screening for elevated blood pressure).
Disease Management	Measures applicable to individuals diagnosed with a condition that are part of the treatment or management of the condition (e.g. cholesterol reduction in patients with diabetes; radiation therapy following breast conserving surgery; appropriate follow-up after acute event).
Medication Monitoring	Measures applicable to patients taking medications with narrow therapeutic windows and / or potential preventable significant side effects or adverse reactions (e.g. thyroid stimulating hormone (TSH) testing after levothyroxine dose change; hepatic enzyme monitoring for patients using antimycotic pharmacotherapy)
Medication Adherence	Measures applicable to patients taking medications for chronic conditions that are designed to assess patient adherence to medication (e.g. adherence to lipid lowering medication).
Utilization	Measures applicable to patients receiving treatment for a symptom or condition that advocate appropriate utilization of laboratory and pharmaceutical resources (e.g. conservative use of imaging for low back pain; inappropriate use of antibiotics for viral upper respiratory infection).

² Strength of Recommendation

Strength of Recommendation Based on a Body of Evidence

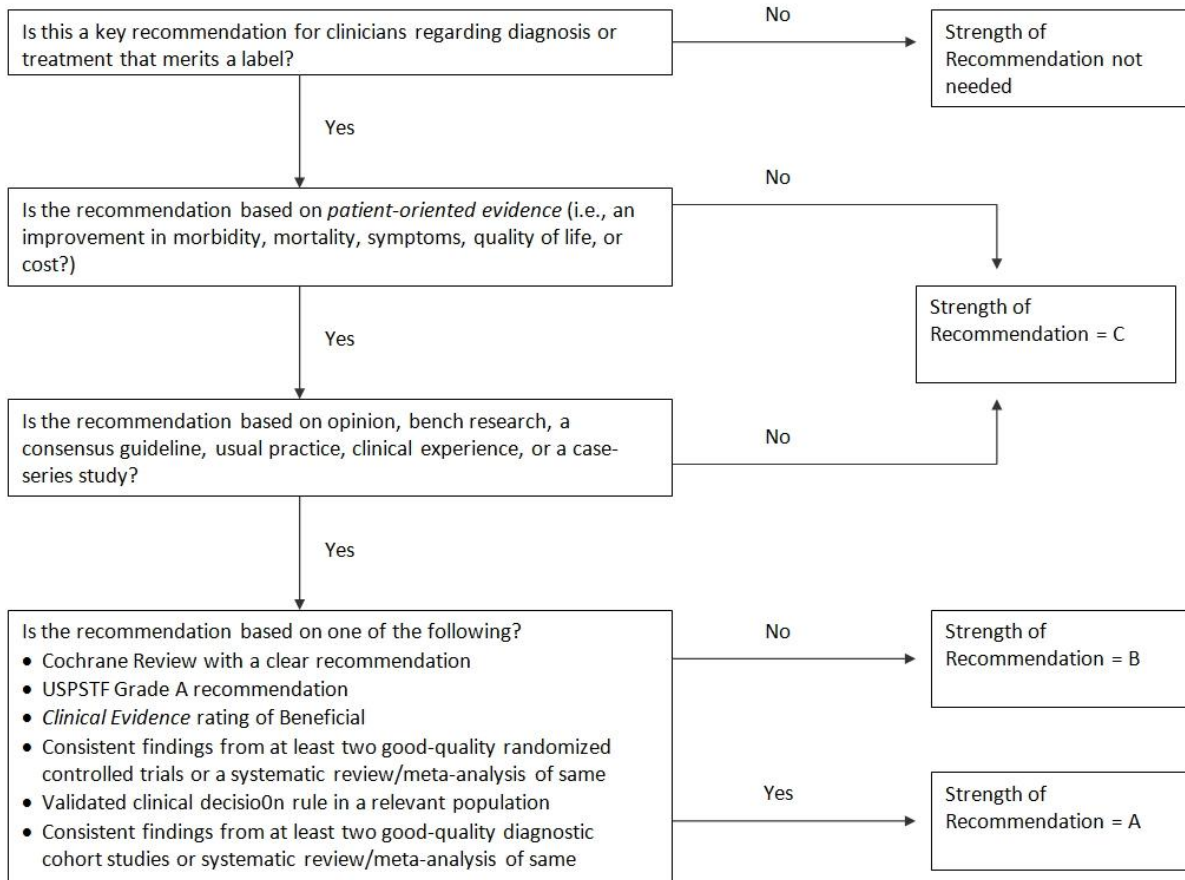


FIGURE 2. Algorithm for determining the strength of a recommendation based on a body of evidence (applies to clinical recommendations regarding diagnosis, treatment, prevention, or screening). While this algorithm provides a general guideline, authors and editors may adjust the strength of recommendation based on the benefits, harms, and costs of the intervention being recommended. (USPSTF = U.S. Preventive Services Task Force)