



Medical Policy

Subject: High Resolution Anoscopy Screening for Anal Intraepithelial Neoplasia (AIN) and Squamous Cell Cancer of the Anus

Policy #: SURG.00116 **Current Effective Date:** 01/01/2016

Status: Reviewed **Last Review Date:** 08/06/2015

Description/Scope

This document addresses the use of high resolution anoscopy for screening average and high risk individuals for anal dysplasia and anal cancer. This document does not address the use of high resolution anoscopy to assist in the diagnosis or treatment of a suspicious anal lesion, anal dysplasia found in prior cytology/biopsy, or rectal trauma.

Position Statement

Investigational and Not Medically Necessary:

High-resolution anoscopy (with or without brushings/biopsies) is considered **investigational and not medically necessary** as a screening test for anal dysplasia and cancer of the anus.

Rationale

Anoscopy involves examining the perianal area and the distal rectum and is commonly performed in individuals with anorectal pain, itching, discharge, or bleeding. High-resolution anoscopy (HRA), also known as colposcopy of the anal canal, is considered more complex than standard anoscopy in that it involves the careful examination of the anal canal using an anoscope and a high-resolution (10–40x magnification) colposcope. During the procedure, an anoscope is inserted approximately 2 inches into the anal canal. Then, a standard gynecologic colposcope is used to magnify the area in order to identify any suspicious lesions. With the aid of 3% acetic acid, suspicious areas are identified as "acetowhite." Lugol's iodine solution may also be applied to identify normal mucosa. Acetic acid is continually applied during the examination to manipulate folds, hemorrhoids, or prolapsing mucosa. If suspicious lesions are found, biopsies are taken and sent for microscopic examination.

High resolution anoscopy has been investigated as a method to identify abnormal anal cytology in high-risk populations and has been proposed as an adjunct tool in anal cytology screening. Based on similarities between anal intraepithelial neoplasia (AIN) and cervical intraepithelial neoplasia (CIN), anal Papanicolaou (Pap) smear cytology has been proposed for both screening high-risk individuals and surveillance after treatment of AIN. There have not been randomized or cohort studies to demonstrate improved survival or clinical outcome with anal cytology screening.

The National Comprehensive Cancer Network (NCCN) includes high resolution anoscopy as a diagnostic tool in the work-up of individuals who present with anal margin lesions and anal canal cancer. With regard to the benefits and limitations of high resolution anoscopy, the NCCN states the following:

High-grade anal intraepithelial neoplasia (AIN) can be a precursor to anal cancer, and treatment of high-grade AIN may prevent the development of anal cancer. AIN can be identified by cytology, HPV testing, digital rectal examination (DRE), high-resolution anoscopy, and/or biopsy. Estimates from a recent systematic review and meta-analysis of studies in men who have sex with men, however, suggest that the progression rates of AIN to cancer might be quite low, although prospective data are lacking. In addition, the spontaneous regression rate of high-grade AIN is not known.

Routine screening for AIN in high-risk individuals such as HIV-positive patients or men who have sex with men, is controversial because randomized controlled trials showing that such screening programs are efficacious at reducing anal cancer incidence and mortality are lacking while the potential benefits are quite large.

The Centers for Disease Control and Prevention (CDC), in its 2009 Treatment Guidelines in HIV Infected Adults and Adolescents, reports that no national recommendations exist for the routine screening for anal cancer and that the evidence of the efficacy of screening high risk individuals with anal cytology is insufficient to support a recommendation for or against its use at this time. The CDC concluded that evidence is limited to the opinions of clinicians based on their personal experience, descriptive studies or reports of expert committees and that studies of screening and treatment programs for anal dysplasia need to be implemented before definitive recommendations for anal cytology screening are made (Kaplan, 2009).

Although a practice guideline published by the HIV Medicine Association of the Infectious Diseases Society of America (Aberg, 2009) recommends that high-resolution anoscopy with biopsy be performed in HIV infected women and HIV infected men having sex with men (MSM) who have abnormal anal cytology, the guideline also indicates that anal cytology screening warrants further study and is not considered to be standard of care at this time.

The 2008 Standards Committee of the American Society of Colon and Rectal Surgeons practice guideline for anal squamous neoplasm concluded that the evidence to support anal cytology screening for high risk individuals was Level III (evidence from well designed, quasi-experimental studies such as non randomized, controlled, single group comparison or matched case-control series) and offered a "C" (inconsistent findings) recommendation for its use (Fleshner, 2008).

The Ontario Health Technology Advisory Committee failed to recommend anal dysplasia screening of high-risk individuals at this time due to the low and variable specificity for cytological screening (33% - 81%), inadequate evidence of effectiveness for current treatment of precancerous lesions, high recurrence rates, and lack of evidence that cytological screening reduces the risk of developing anal cancer (OHTAC, 2007).

Further review of the published literature did not reveal evidence that demonstrates that the use of HRA as a screening tool to identify suspicious anal lesions followed by directed biopsy results in an improved clinical outcome. For the reasons outlined above, the clinical utility of HRA as a screening tool for anal dysplasia and rectal cancer is considered unproven and its use is considered investigational and not medically necessary at the present time.

Background/Overview

Anal intraepithelial neoplasia (AIN) also termed squamous intraepithelial lesion (SIL) is classified into AIN Grade 1 or low-grade squamous intraepithelial lesion (LSIL). High grade anal squamous intraepithelial lesion (HSIL) is equivalent to more advanced dysplasia, AIN Grade 2 or 3. AIN lesions are classified using criteria for the evaluation of cervical cytology. AIN has many disease characteristics in common with cervical intraepithelial neoplasia. HSIL has the potential to progress to invasive anal cancer (Pineda, 2008). There is substantial evidence to show that HIV-positive MSM and HIV-positive women are at increased risk for AIN 2 or 3 and are at increased risk for anal cancer. Other risks for developing anal dysplasia and anal cancer include immunosuppressive therapies, concurrent human papilloma virus (HPV) related disease in other sites, multiple sexual partners, prior history of other sexually-transmitted disease, history of cervical cancer, cervical intraepithelial neoplasia, and cigarette smoking.

Squamous-cell cancer (SCC) of the anus is an uncommon malignancy, detected in approximately 4600 individuals per year in the United States. The incidence of anal cancer has not declined as a result of highly active antiretroviral therapies (HAART). The HPV is associated with a number of benign and malignant lesions in the anogenital tract and is recognized as the cause of cervical dysplasia and cancer. HPV DNA can be detected in up to 91% of individuals with anal HSIL and up to 81% of individuals with anal SCC. HPV serotypes associated with anal dysplasia include HPV 16, 18, 58, and 45 (Pineda, 2008).

High resolution anoscopy has been investigated as a method to identify abnormal anal cytology amongst high-risk populations and is used as an adjunct tool to the anal Pap smear. It is also proposed as a tool to visualize areas of anal mucosa at risk for dysplasia to direct biopsy.

Definitions

Anal intraepithelial neoplasia (AIN): Abnormal cellular growth in anal tissue which may eventually progress to cancer. Also termed anal squamous intraepithelial lesions (ASIL).

Anoscope: An instrument used to visualize the anus and lowest portion of the rectum.

Cervical intraepithelial neoplasia (CIN): Abnormal growth and potentially premalignant changes of the squamous cells on the surface of the cervix.

DNA (deoxyribonucleic acid): A type of molecule that contains the code for genetic information.

Squamous cell cancer: Tumors which are derived from the squamous cells that line the anal margin and most of the anal canal.

Coding

The following codes for treatments and procedures applicable to this document are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

When services are Investigational and Not Medically Necessary:

CPT

46601	Anoscopy; diagnostic, with high-resolution magnification (HRA) (eg, colposcope, operating microscope) and chemical agent enhancement, including collection of specimen(s) by brushing or washing, when performed
46607	Anoscopy; with high-resolution magnification (HRA) (eg, colposcope, operating microscope) and chemical agent enhancement, with biopsy, single or multiple

ICD-10 Diagnosis

B20	Human immunodeficiency virus [HIV] disease [when specified as a screening procedure]
B97.7	Papillomavirus as the cause of diseases classified elsewhere [when specified as a screening procedure]
Z12.10	Encounter for screening for malignant neoplasm of intestinal tract, unspecified [anus]
Z12.12	Encounter for screening for malignant neoplasm of rectum
Z12.89	Encounter for screening for malignant neoplasm of other sites

References

Peer Reviewed Publications:

1. Aberg JA, Kaplan JE, Libman H, et al. Primary care guidelines for the management of persons infected with human immunodeficiency virus: 2009 update by the HIV medicine Association of the Infectious Diseases Society of America. *Clin Infect Dis*. 2009; 49(5):651-681.
2. Fleshner PR, Chalasani S, Chang GJ, et al. Practice parameters for anal squamous neoplasms. *Dis Colon Rectum*. 2008; 51(1):2-9.
3. Goldie SJ, Kuntz KM, Weinstein MC, et al. Cost effectiveness of screening for anal squamous intraepithelial lesions and anal cancer in human immunodeficiency virus-negative homosexual and bisexual men. *Am J Med*. 2000; 108(8):634-641.
4. Palefsky JM, Rubin M. The epidemiology of anal human papillomavirus and related neoplasia. *Obstet Gynecol Clin North Am*. 2009; 36(1):187-200.
5. Pineda CE, Welton ML. Controversies in the management of anal high-grade squamous intraepithelial lesions, *Minerva Chir*; 2008; 63(5):389-399.

Government Agency, Medical Society, and Other Authoritative Publications:

1. Kaplan JE, Benson C, Holmes KH, et al. Guidelines for prevention and treatment of opportunistic infections in HIV-infected adults and adolescents: recommendations from CDC, the National Institutes of Health, and the HIV Medicine Association of the Infectious Diseases Society of America. *MMWR Recomm Rep*. 2009; 58(RR-4):1-207.
2. NCCN Clinical Practice Guidelines in Oncology™. © 2013 National Comprehensive Cancer Network, Inc. Anal Carcinoma V2.2015. Revised December 9, 2014. For additional information visit the NCCN website: <http://www.nccn.org/index.asp>. Accessed on June 12, 2015.
3. Ontario Health Technology Advisory Committee (OHTAC). Anal dysplasia screening. OHTAC Recommendation. Toronto, ON: Ontario Ministry of Long-Term Care, Medical Advisory Secretariat; July 2007.

Websites for Additional Information

1. American Cancer Society Detailed Guide: Anal Cancer What Is Anal Cancer? Available at: http://www.cancer.org/docroot/cric/content/cric_2_4_1x_what_is_anal_cancer_47.asp. Accessed on June 10, 2015.

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Document History

Status	Date	Action
	01/01/2016	Updated Coding section with 01/01/2016 HCPCS changes, removed G6027, G6028 deleted 12/31/2015; also removed ICD-9 codes.
Reviewed	08/06/2015	Medical Policy & Technology Assessment Committee (MPTAC) review. Updated Review date, Rationale, References and History sections of the document.
Reviewed	01/01/2015	Updated Coding section with 01/01/2015 CPT and HCPCS changes; removed 0226T, 0227T deleted 12/31/2014.
Reviewed	08/14/2014	MPTAC review. Updated Review date, Rationale, References and History sections of the document.
Reviewed	08/08/2013	MPTAC review. Updated Review date, References and History sections of the document.
Reviewed	08/09/2012	MPTAC review. Updated Review date, References and History sections of the document.
Reviewed	08/18/2011	MPTAC review. Updated Review date, References and History sections of the document.
Reviewed	08/19/2010	MPTAC review. Updated Review date, Rationale, References and History sections of the document.
New	05/13/2010	MPTAC review. Initial document development.

Federal and State law, as well as contract language, including definitions and specific contract provisions/exclusions, take precedence over Medical Policy and must be considered first in determining eligibility for coverage. The member's

contract benefits in effect on the date that services are rendered must be used. Medical Policy, which addresses medical efficacy, should be considered before utilizing medical opinion in adjudication. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.

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