

UPMC Health Plan POLICY AND PROCEDURE MANUAL

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SUBJECT: Anterior Segment - Optical Coherence Tomography (AS-OCT)
INDEX TITLE: Medical Management
ORIGINAL DATE: 11/10/2008

This policy applies to the following lines of business: (Check those that apply.)

Commercial:					
HMO ()	POS ()	PPO ()	OOA/DOC ()		
Fully Insured ()	Self-funded/ASO ()	HSA ()	All ()		
Medicare Select ()	Medicare Supplement ()				
DPW-MA:					
Health Choices ()	Voluntary ()		All ()		
CMS-MA:					
HMO (X)	PPO (X)	Specialty Needs Plan (X)	Part D ()	PFFS (X)	All ()
PID-CHIP:					
Free ()	Sub ()		All ()		

I. POLICY

It is the policy of UPMC Health Plan to recognize coverage for services mandated through Medicare regulations. Based on review of the varied data outcomes, UPMC Health Plan considers anterior segment optical coherence tomography (AS-OCT) to be experimental/investigational. Coverage for this procedure for Medicare members is based on medical necessity as detailed in this policy and according to the member's benefit plan.

II. DEFINITIONS

Anterior segment of the eye is the front third of the eye and includes the structures in front of the vitreous humour – the cornea, iris, ciliary body and lens. Within the anterior segment there are also two fluid filled spaces - the anterior and posterior chambers.

Anterior Segment Optical Coherence Tomography (AS-OCT): is a non-invasive non-contact imaging high resolution technique using computerized tomography that can create a high resolution cross-sectioned image of the cornea and anterior segment of the eye without the use of ocular anesthesia. It is a form of scanning computerized ophthalmic diagnostic imaging.

Scanning computerized ophthalmic diagnostic imaging (SCODI): is non-invasive, non-contact new imaging techniques used in the evaluation of retinal disease or early detection of glaucoma damage. They include confocal laser scanning ophthalmoscopy

(topography), scanning laser polarimetry (nerve fiber analyzer) and optical coherence tomography.

III. PURPOSE

The purpose of this policy is to define the appropriate indications for coverage of AS-OCT.

IV. SCOPE

This policy applies to various UPMC Health Plan departments as indicated by the Benefit and Reimbursement Committee. These include but are not limited to: Medical Management, Benefit Configuration and Claims departments.

V. PROCEDURE

A. Medical Description / Background

Glaucoma is a disease of the eye characterized by degeneration of the optic disc (area in the retina for entrance of the optic nerve) which causes loss of peripheral vision and subsequent blindness.

Standard methods of evaluation for glaucoma include direct examination of the optic nerve using ophthalmoscopy, evaluation of the visual fields (perimetry test), tonometry, fundus photography, slit lamp exam and gonioscopy. A variety of new techniques have been developed to document optic nerve damage and detect changes early before permanent damage occurs as well as measuring the effectiveness of ongoing therapy. Scanning Computerized Ophthalmic Diagnostic Imaging allows earlier detection of patients with glaucoma irrespective of the status of their intraocular pressure. These techniques differ but their objective is the same to allow for early detection of glaucoma damage to the nerve fiber layer. The main treatment of glaucoma is aimed at reducing intraocular pressure.

Optical coherence tomography was invented in 1991 by the Massachusetts Institute of Technology. Ophthalmology is the main field of its application. It is likened to an optical version of an ultrasound scan where a beam of light instead of sound is used to study the structure of tissues. It is a promising technology but lacks data at this time demonstrating improved outcomes.

AS-OCT may be appropriate for use when performed for the evaluation of individuals at high risk for developing glaucoma and for monitoring of patients already diagnosed with mild or moderate glaucoma. Individuals at high risk for developing glaucoma include:

- Family history of glaucoma
- Diabetes
- Caucasians over 65 years old

- African Americans over 40 years old

Separate OCT devices are used for the anterior versus the posterior segment of the eye. Those available for the anterior segment include:

- The Visante OCT by Carl Zeiss Meditec was FDA approved in 2005
- The SL-OCT was FDA approved in 2006
- The ACVue system by Optovue is currently in a Clinical Trial status.
- Cirrus™ HD-OCT by Carl Zeiss Meditec was FDA approved 2008
- Stratus™ OCT by Carl Zeiss Meditec for the diagnosis of glaucoma and retinal diseases FDA approved in 2008

B. Indications for use include at least one of the following:

- Narrow angle, suspected narrow angle and mixed narrow and open angle glaucoma
- Determining the proper intraocular lens for a patient who has had prior refractive surgery and now requires cataract extraction
- Iris tumor
- Presence of corneal edema or opacity that precludes visualization or study of the anterior chamber
- Calculation of lens power for cataract patients who have undergone prior refractory surgery. Payment will only be made for the cataract codes as long as additional documentation is available in the patient record of their prior refractive procedure. Payment will not be made in addition to A-scan or IOL master (a non-contact optical laser device that measures eye length and surface curvature).

C. Limitations include:

- This technique is not recommended for the general screening of glaucoma or other retinal diseases
- It is not the preferred study for **advanced** glaucomatous damage
- Fluorescein angiography and optical coherence tomography on the same day unless the medical record documents the need for both.
- For patients with “suspect” or “mild” glaucomatous damage- imaging frequency should not exceed > 1 per year
- For patients with “moderate” glaucomatous damage- imaging frequency should not exceed > 2 per year
- Services are considered unilateral

B. Variations

N/A

C. References

1. BlueCross BlueShield of North Carolina, Evidence Based Guideline Number
Proprietary and Confidential Information of UPMC Health Plan

- EBGOTH8075, *Glaucoma Evaluation by Ophthalmologic Techniques*, 01/2007
2. Excellus Health Plan, Policy number 9.01.10, *Optical Coherence Tomography for Ophthalmologic Applications*, 05/14/2008
 3. Highmark Medicare Services, LCD L27529, *Scanning Computerized Ophthalmic Diagnostic Imaging*, 09/01/2008
 4. Blue Cross Blue Shield of Rhode Island, Medical Coverage Policy, *Computerized Ophthalmic Imaging*, 12/07/2006
 5. American Academy of Ophthalmology (AAO), *Comprehensive adult medical eye evaluation*, 2005
 6. Ophthalmology Management, Coding & Reimbursement, *Medicare Reimbursement for Testing with the Visante OCT*, 02/2008
 7. ECRI Institute Custom Hotline, *Optical Coherence Tomography for Diagnosing Macular Degeneration*, 07/25/2006
 8. Optics.org, *New growth for optical coherence tomography*, 05/16/2008,
<http://optics.org>
 9. American Optometric Association (AOA), Glaucoma, 2006-2008, www.aoa.org
 10. Aetna, Clinical Policy Bulletin Number 0749, *Anterior Segment Optical Coherence Tomography*, 03/21/2008
 11. Centers for Medicare and Medicaid Services, L27529, *Scanning Computerized Ophthalmic Diagnostic Imaging*, 09/01/2008

Disclaimer:

UPMC Health Plan medical payment and prior authorization policies do not constitute medical advice and are not intended to govern or otherwise influence the practice of medicine. The policies constitute only the reimbursement and coverage guidelines of UPMC Health Plan and its affiliated managed care entities. Coverage for services varies for individual members in accordance with the terms and conditions of applicable Certificates of Coverage, Summary Plan Descriptions, or contracts with governing regulatory agencies.

UPMC Health Plan reserves the right to review and update the medical payment and prior authorization guidelines in its sole discretion. Notice of such changes, if necessary, shall be provided in accordance with the terms and conditions of provider agreements and any applicable laws or regulations.

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