FY 2018 Houston EMA/HSDA Ryan White Part A/MAI Service Definition **Vision Care** (Last Review/Approval Date: 6/3/16)	
HRSA Service Category Title: **RWGA Only**	**Ambulatory/Outpatient Medical Care**
Local Service Category Title:	**Vision Care**
Budget Type: **RWGA Only**	**Fee for Service**
Budget Requirements or Restrictions: **RWGA Only**	Corrective lenses are not allowable under this category. Corrective lenses may be provided under Health Insurance Assistance and/or Emergency Financial Assistance as applicable/available.
HRSA Service Category Definition: **RWGA Only**	***Outpatient/Ambulatory medical care*** is the provision of professional diagnostic and therapeutic services rendered by a physician, physician's assistant, clinical nurse specialist, or nurse practitioner in an outpatient setting. Settings include clinics, medical offices, and mobile vans where clients generally do not stay overnight. Emergency room services are not outpatient settings. Services includes diagnostic testing, early intervention and risk assessment, preventive care and screening, practitioner examination, medical history taking, diagnosis and treatment of common physical and mental conditions, prescribing and managing medication therapy, education and counseling on health issues, well-baby care, continuing care and management of chronic conditions, and referral to and provision of specialty care (includes all medical subspecialties). *Primary medical care* for the treatment of HIV infection includes the provision of care that is consistent with the Public Health Service's guidelines. Such care must include access to antiretroviral and other drug therapies, including prophylaxis and treatment of opportunistic infections and combination antiretroviral therapies. HRSA policy notice 10-02 states funds awarded under Part A or Part B of the Ryan White CARE Act (Program) may be used for optometric or ophthalmic services under Primary Medical Care. Funds may also be used to purchase corrective lenses for conditions related to HIV infection, through either the Health Insurance Premium Assistance or Emergency Financial Assistance service categories as applicable.
Local Service Category Definition:	**Primary Care Office/Clinic Vision Care** is defined as a comprehensive examination by a qualified Optometrist or Ophthalmologist, including Eligibility Screening as necessary. A visit with a credentialed Ophthalmic Medical Assistant for any of the following is an allowable visit: • Routine and preliminary tests including Cover tests, Ishihara Color Test, NPC (Near Point of Conversion), Vision Acuity Testing, Lensometry. • Visual field testing • Glasses dispensing including fittings of glasses, visual

	acuity testing, measurement, segment height. • Fitting of contact lenses is not an allowable follow-up visit.
Target Population (age, gender, geographic, race, ethnicity, etc.):	HIV-infected individuals residing in the Houston EMA/HSDA.
Services to be Provided:	Services must be provided at an eye care clinic or Optometrist's office. Services must include but are not limited to external/internal eye health evaluations; refractions; dilation of the pupils; glaucoma and cataract evaluations; CMV screenings; prescriptions for eyeglasses and over the counter medications; provision of eyeglasses (contact lenses are not allowable); and referrals to other service providers (i.e. Primary Care Physicians, Ophthalmologists, etc.) for treatment of CMV, glaucoma, cataracts, etc. Agency must provide a written plan for ensuring that collaboration occurs with other providers (Primary Care Physicians, Ophthalmologists, etc.) to ensure that patients receive appropriate treatment for CMV, glaucoma, cataracts, etc.
Service Unit Definition(s): **RWGA Only**	One (1) unit of service = One (1) patient visit to the Optometrist, Ophthalmologist or Ophthalmic Assistant.
Financial Eligibility:	Refer to the RWPC's approved *Financial Eligibility for Houston EMA Services*.
Client Eligibility:	HIV-infected resident of the Houston EMA/HSDA.
Agency Requirements:	Providers and system must be Medicaid/Medicare certified to ensure that Ryan White Program funds are the payer of last resort to the extent examinations and eyewear are covered by the State Medicaid program.
Staff Requirements:	Vendor must have on staff a Doctorate of Optometry licensed by the Texas Optometry Board as a Therapeutic Optometrist.
Special Requirements: **RWGA Only**	Vision care services must meet or exceed current U.S. Dept. of Health and Human Services (HHS) guidelines for the treatment and management of HIV disease as applicable to vision care

FY 2019 RWPC "How to Best Meet the Need" Decision Process

Step in Process: **Council**		Date: **06/14/18**
Recommendations:	Approved: Y:_____ No: _____ Approved With Changes:_____	If approved with changes list changes below:
1.		
2.		
3.		

Step in Process: **Steering Committee**		Date: **06/07/18**
Recommendations:	Approved: Y: _____ No: _____ Approved With Changes:_____	If approved with changes list changes below:
1.		
2.		
3.		

Step in Process: **Quality Improvement Committee**		Date: **05/15/18**
Recommendations:	Approved: Y: _____ No: _____ Approved With Changes:_____	If approved with changes list changes below:
1.		
2.		
3.		

Step in Process: **HTBMN Workgroup**	Date: **04/24/18**
Recommendations:	Financial Eligibility:
1.	
2.	
3.	

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FY 2016 PERFORMANCE MEASURES HIGHLIGHTS

RYAN WHITE GRANT ADMINISTRATION

HARRIS COUNTY PUBLIC HEALTH (HCPH)

TABLE OF CONTENTS

Highlights from FY 2016 Performance Measures

Vision Care

- During FY 2016, 950 clients were diagnosed with HIV/AIDS related and general ocular disorders. Among 426 clients with follow-up appointments, 420 (99%) clients had disorders that were either resolved, improved or had remained the same.

Ryan White Part A
HIV Performance Measures
FY 2016 Report

Vision Care
All Providers

HIV Performance Measures	FY 2016
75% of clients with diagnosed HIV/AIDS related and general ocular disorders will resolve, improve or stay the same over time	See ocular disorder table

Clinical Chart Review Measures*	FY 2014	FY 2015
100% of HIV-infected vision patients will have a medical health history (initial or updated) at least once in the measurement year	100%	100%
100% of HIV-infected vision patients will have a vision history (initial or updated) at least once in the measurement year	100%	100%
100% of HIV-infected vision patients will have a comprehensive eye examination at least once in the measurement year	99%	100%

* To view the full FY 2015 chart review reports, please visit:
http://publichealth.harriscountytx.gov/Services-Programs/Programs/RyanWhite/Quality

Ocular Disorder	Number of Diagnoses	Number with Follow-up	*Resolved		*Improved		*Same		*Worsened	
			#	%	#	%	#	%	#	%
Accommodation Spasm										
Acute Retinal Necrosis	1	0								
Anisocoria 13		3					3	100%		
Bacterial Retinitis										
Cataract 15	2	76			2	2.6%	72	94.7%	2	2.6%
Chalazion										
Chorioretinal Scar	5	2					2	100%		
Chorioretinitis 1		1					1	100%		
CMV Retinitis - Active										
CMV Retinitis - Inactive										
Conjunctivitis 1	4	4					4	100%		
Covergence Excess										
Convergence Insufficiency										
Corneal Edema										
Corneal Erosion										
Corneal Foreign Body										
Corneal Opacity	25	10					10	100%		
Corneal Ulcer	1	1			1	100%				
Cotton Wool Spots										
Diabetic Retinopathy	6	4					4	100%		
Dry Eye Syndrome	431	229			2	0.9%	227	99.1%		
Ecchymosis										
Esotropia 2		0								
Exotropia 6		5					5	100%		
Glaucoma 5		2					2	100%		
Glaucoma Suspect	83	20					18	90%	2	10%
Iritis 1		0								
Kaposi Sarcoma										
Keratitis 5		1					1	100%		
Keratoconjuctivitis 1		1					1	100%		
Keratoconus 2		0								
Lagophthalmos 1		0								
Macular Hole	2	2					2	100%		
Meibomianitis										
Molluscum Contagiosum										
Optic Atrophy	10	4					4	100%		
Papilledema										

Ocular Disorder	Number of Diagnoses	Number with Follow-up	*Resolved		*Improved		*Same		*Worsened	
			#	%	#	%	#	%	#	%
Paresis of Accommodation										
Pseudophakia 7		2					2	100%		
Refractive Change/Transient	1	0								
Retinal Detachment	1	0								
Retinal Hemorrhage										
Retinopathy HTN	5	1							1	100%
Retinal Hole/Tear										
Suspicious Optic Nervehead(s)	1	0								
Toxoplasma Retinochoriochitis										
Thyroid Eye Disease										
Visual Field Defect	7	2					2	100%		
Vitreous Degeneration	7	3					3	100%		
Other 15	4	53					52	98.1%	1	1.9%
Total	**950**	**426**			**5**	**1.2%**	**415**	**97.4%**	**6**	**1.4%**

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Vision Care Chart Review Report FY 2016

Ryan White Part A Quality Management Program–Houston EMA

December 2017

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HCPH is the local public health agency for the Harris County, Texas jurisdiction. It provides a wide variety of public health activities and services aimed at improving the health and well-being of the Harris County community.

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Introduction

Part A funds of the Ryan White Care Act are administered in the Houston Eligible Metropolitan Area (EMA) by the Ryan White Grant Administration of Harris County Public Health & Environmental Services. During FY 16, a comprehensive review of client vision records was conducted for services provided between 3/1/16 to 2/28/17.

The primary purpose of this annual review process is to assess Part A vision care provided to persons living with HIV and AIDS in the Houston EMA. Unlike primary care, there are no federal guidelines published by the U.S Public Health Service for general vision care targeting individuals with HIV/AIDS. Therefore, Ryan White Grant Administration has adopted general guidelines published by the American Optometric Association, as well as internal standards determined by the clinic, to measure the quality of Part A funded vision care. The Ryan White Grant Administration Project Coordinator for Clinical Quality Improvement (PC/CQI) performed the chart review.

Scope of This Report

This report provides background on the project, supplemental information on the design of the data collection tool, and presents the pertinent findings of the FY 16 vision care chart review. Also, any additional data analysis of items or information not included in this report can likely be provided after a request is submitted to Ryan White Grant Administration.

The Data Collection Tool

The data collection tool employed in the review was developed through a period of in-depth research conducted by the Ryan White Grant Administration. By researching the most recent vision practice guidelines, a listing of potential data collection items was developed. Further research provided for the editing of this list to yield what is believed to represent the most pertinent data elements for vision care in the Houston EMA. Topics covered by the data collection tool include, but are not limited to the following: completeness of the Client Intake Form (CIF), CD4 and VL measures, eye exams, and prescriptions for lenses. See Appendix A for a copy of the tool.

The Chart Review Process

All charts were reviewed by the PC/CQI, a Master's-level registered nurse experienced in identifying documentation issues and assessing adherence to published guidelines. The collected data for each site was recorded directly into a preformatted database. Once all data collection was completed, the database was queried for analysis. The data collected during this process is intended to be used for the purpose of service improvement.

The specific parameters established for the data collection process were developed from vision care guidelines and the professional experience of the reviewer on standard record documentation practices. Table 1 summarizes the various documentation criteria employed during the review.

Table 1. Data Collection Parameters	
Review Area	**Documentation Criteria**
Laboratory Tests	Current CD4 and Viral Load Measures
Client Intake Form (CIF)	Completeness of the CIF: includes but not limited to documentation of primary care provider, medication allergies, Hx of medical problems, Ocular Hx, and current medications
Complete Eye Exam (CEE)	Documentation of annual eye exam; completeness of eye exam form; comprehensiveness of eye exam (visual acuity, refraction test, binocular vision assessment, fundus/retina exam, and glaucoma test)
Ophthalmology Consult (DFE)	Performed/Not performed
Lens Prescriptions	Documentation of the Plan of Care (POC) and completeness of the dispensing form

The Sample Selection Process

The sample population was selected from a pool of 2,010 unduplicated clients who accessed Part A vision care between 3/1/16 and 2/28/17. The medical charts of 150 of these clients were used in the review, representing 7.5% of the pool of unduplicated clients.

In an effort to make the sample population as representative of the actual Part A vision care population as possible, the EMA's Centralized Patient Care Data Management System (CPCDMS) was used to generate the lists of client codes. The demographic make-up (race/ethnicity, gender, age) of clients accessing vision care services between 3/1/16 and 2/28/17 was determined by CPCDMS, which in turn allowed Ryan White Grant Administration to generate a sample of specified size that closely mirrors that same demographic make-up.

Characteristics of the Sample Population

The review sample population was generally comparable to the Part A population receiving vision care in terms of race/ethnicity, gender, and age. It is important to note that the chart review findings in this report apply only to those who receive vision care from a Part A provider and cannot be generalized to all Ryan White clients or to the broader population of persons with HIV or AIDS. Table 2 compares the review sample population with the Ryan White Part A vision care population as a whole.

Table 2. Demographic Characteristics of FY 16 Houston EMA Ryan White Part A Vision Care Clients				
	Sample		**Ryan White Part A EMA**	
Race/Ethnicity	Number	Percent	Number	Percent
African American	75	50%	980	49%
White	71	47.3%	975	49%
Asian	2	1.3%	23	1%
Native Hawaiian/Pacific Islander	2	0%	3	<1%
American Indian/Alaska Native	0	0%	10	<1%
Multi-Race	0	0%	19	<1%
TOTAL	**150**		**2,010**	
Hispanic Status				
Hispanic	51	34%	1,306	35%
Non-Hispanic	99	66%	704	65%
TOTAL	**150**		**2,010**	
Gender				
Male	110	73.3%	1,471	73%
Female	39	26%	521	26%
Transgender Male to Female	1	.7%	18	<1%
Transgender Female to Male	0	0%	0	0
TOTAL	**150**		**2,010**	
Age				
<= 24	6	4%	84	4%
25 – 34	29	19.3%	412	21%
35 – 44	36	24%	456	23%
45 – 54	47	31.3%	618	31%
55 – 64	26	17.3%	364	18%
65+	6	4%	76	4%
TOTAL	**150**		**2,010**	

Findings

Laboratory Tests

Having up-to-date lab measurements for CD4 and viral load (VL) levels enhances the ability of vision providers to ensure that the care provided is appropriate for each patient. CD4 and VL measures indicate stage of disease, so in cases where individuals are in the late stage of HIV disease, special considerations may be required.

Patient chart records should provide documentation of the most recent CD4 and VL information. Ideally this information should be updated in coordination with an annual complete eye exam. As noted in the table below, significant decreases were noted in lab documentation compared to previous years.

	2013	2014	2015	2016
CD4	49%	48%	64%	91%
VL	49%	48%	64%	91%

Client Intake Form (CIF)

A complete and thorough assessment of a patient's health history is essential when caring for individuals infected with HIV or anyone who is medically compromised. The agency assesses this information by having patients complete the CIF. Information provided on the CIF, such as ocular history or medical history, guides clinic providers in determining the appropriateness of diagnostic procedures, prescriptions, and treatments. The CIF that is used by the agency to assess patient's health history captures a wide range of information; however, for the purposes of this review, this report will highlight findings for only some of the data collected on the form.

Below are highlights of the findings measuring completeness of the CIF.

	2013	2014	2015	2016
Primary Care Provider	51%	52%	50%	50%
Medication Allergies	93%	100%	100%	100%
Medical History	99%	100%	100%	100%
Current Medications	96%	100%	100%	100%
Reason for Visit	99%	100%	100%	100%
Ocular History	99%	100%	100%	100%

Eye Examinations (Including CEE/DFE) and Exam Findings

Complete and thorough examination of the eye performed on a routine basis is essential for the prevention, detection, and treatment of eye and vision disorders. When providing care to individuals with HIV/AIDS, routine eye exams become even more important because there are a number of ocular manifestations of HIV disease, such as CMV retinitis.

CMV retinitis is usually diagnosed based on characteristic retinal changes observed through a DFE. Current standards of care recommend yearly DFE performed by an ophthalmologist for clients with CD4 counts <50 cells/mm3 (2). One client in this sample had CD4 counts <50 cells/mm3.

	2013	2014	2015	2016
Complete Eye Exam	100%	99%	100%	100%
Dilated Fundus Exam	53%	94%	95%	98%
Internal Eye Exam	100%	100%	100%	100%
Documentation of Diagnosis	100%	99%	100%	100%
Documentation of Treatment Plan	100%	99%	100%	100%
Visual Acuity	100%	100%	100%	100%
Refraction Test	99%	98%	100%	99%
Observation of External Structures	56%	100%	100%	100%
Glaucoma Test	99%	100%	100%	100%
Cytomegalovirus (CMV) screening	55%	94%	95%	98%

Ocular Disease

Thirteen clients (8.7%) demonstrated ocular disease, including blindness, amyloid pterygium, cataracts, glaucoma, and foreign body. Two clients received treatment for ocular disease, 6 clients were referred to a specialty eye clinic, and 5 clients did not need treatment at the time of visit.

Prescriptions

Of records reviewed, 95% (97%-FY15) documented new prescriptions for lenses at the agency within the year.

Conclusions

Findings from the FY 16 Vision Care Chart Review indicate that the vision care providers perform comprehensive vision examinations for the prevention, detection, and treatment of eye and vision disorders. Performance rates are very high overall, and are consistent with quality vision care.

Appendix A—FY 16-Vision Chart Review Data Collection Tool

Mar 1, 16 to Feb 28, 17

Pt. ID # _____ Site Code:_____

CLIENT INTAKE FORM (CIF)

1. PRIMARY CARE PROVIDER documented: Y - Yes N - No
2. MEDICATION ALLERGIES documented: Y - Yes N - No
3. MEDICAL HISTORY documented: Y - Yes N - No
4. CURRENT MEDS are listed: Y - Yes N - No
5. REASON for TODAY's VISIT is documented: Y - Yes N - No
6. OCULAR HISTORY is documented: Y - Yes N - No

CD4 & VL

7. Most recently documented CD4 count is within past 12 months: Y - Yes N - No
8. CD4 count is < 50: Y - Yes N - No
9. Most recently documented VL count is within past 12 months: Y - Yes N – No

EYE CARE:

10. COMPLETE EYE EXAM (CEE) performed: Y - Yes N - No
11. Eye Exam included ASSESSMENT OF VISUAL ACUITY: Y - Yes N - No
12. Eye Exam included REFRACTION TEST: Y - Yes N - No
13. Eye Exam included OBSERVATION OF EXTERNAL STRUCTURES: Y - Yes N - No
14. Eye Exam included GLAUCOMA TEST (IOP): Y - Yes N - No
15. Internal Eye Exam findings are documented: Y - Yes N - No
16. Dilated Fundus Exam (DFE) done within year: Y - Yes N - No
17. Eye Exam included CYTOMEGALOVIRUS (CMV) SCREENING: Y - Yes N – No
18. New prescription lenses were prescribed: Y - Yes N - No
19. Eye Exam written diagnoses are documented: Y - Yes N - No
20. Eye Exam written treatment plan is documented: Y - Yes N - No
21. Ocular disease identified? Y - Yes N – No
22. Ocular disease treated appropriately? Y - Yes N - No
23. Total # of visits to eye clinic within year:_____

Revised March, 2013

Appendix B – Resources

1. Casser, L., Carmiencke, K.., Goss, D.A., Knieb, B.A., Morrow, D., & Musick, J.E. (2005). Optometric Clinical Practice Guideline—Comprehensive Adult Eye and Vision Examination. *American Optometric Association*. Retrieved from http://www.aoa.org/Documents/CPG-1.pdf on April 15, 2012.

2. Heiden D., Ford N., Wilson D., Rodriguez W.R., Margolis T., et al. (2007). Cytomegalovirus Retinitis: The Neglected Disease of the AIDS Pandemic. *PLoS Med* 4(12): e334. Retrieved from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2100142/ on April 15, 2012.

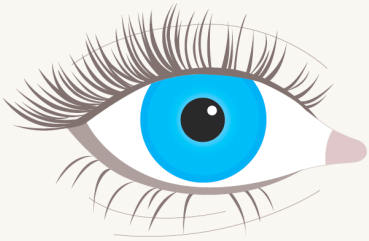
3. International Council of Ophthalmology. (2011). *ICO International Clinical Guideline, Ocular HIV/AIDS Related Diseases.* Retrieved from http://www.icoph.org/resources/88/ICO-International-Clinical-Guideline-Ocular-HIVAIDS-Related-Diseases-.html on December 15, 2012.

4. Panel on Opportunistic Infections in HIV-Infected Adults and Adolescents. Guidelines for the prevention and treatment of opportunistic infections in HIV-infected adults and adolescents: recommendations from the Centers for Disease Control and Prevention, the National Institutes of Health, and the HIV Medicine Association of the Infectious Diseases Society of America. Available at http://aidsinfo.nih.gov/contentfiles/lvguidelines/adult_oi.pdf. Accessed July 25, 2013.

Factsheet Sight problems

Key points

- Most people living with HIV don't experience eye problems related to HIV.
- Sight problems are more likely to occur in people with very low CD4 counts (below 50 cells/mm^3).
- Cytomegalovirus (CMV) is a serious eye disease that people with very weak immune systems can develop.



Most people do not experience any HIV-related problems affecting their sight. Taking HIV treatment will prevent the severe damage to the immune system that can lead to sight problems.

However, about 70% of people with HIV who have very weak immune systems develop serious eye diseases. These may lead to blindness if not treated promptly.

The most common of these conditions is HIV retinopathy. This is a condition where the retina is damaged, probably because uncontrolled HIV is damaging the blood vessels in the eye. It can eventually lead to blindness, but can be treated in the early stages. Having diabetes is another risk factor for retinopathy, a condition that is more common in people living with HIV, especially as they age.

Uveitis is the inflammation of an inner layer of the eye. The most common cause is a weakened immune system. It can be caused by toxoplasmosis (a parasite infection) or by the antibiotic rifabutin (used to treat other opportunistic infections), especially if you are taking other drugs that boost rifabutin levels. Like retinopathy, the sooner uveitis is treated, the less damage it will do.

The most serious eye disease is caused by cytomegalovirus (CMV). If your CD4 count is or has been below 50, CMV may cause retinitis – damage to the light-sensitive lining of the eye called the retina.

Other infections that can affect the eye include varicella zoster virus (VZV), herpes simplex virus (HSV), toxoplasmosis and a number of sexually transmitted infections, including syphilis, gonorrhoea, chlamydia and candidiasis.

Symptoms of eye diseases

HIV retinopathy causes 'cotton wool' spots and broken blood vessels in the eye.

Uveitis causes:

- redness
- a dull pain in the eye, particularly when focusing
- sensitivity to light
- new 'floaters' (tiny black specks that move around in your line of sight)
- blurred vision or loss of peripheral vision (being unable to see at the sides of your field of vision).

Early symptoms of CMV retinitis can include:

- blurred vision
- new 'floaters'
- a blind spot
- flashes of bright light.

If your CD4 count is or has been low you should take any of these symptoms seriously and consult your doctor, as the earlier CMV is treated, the less damage it is likely to do. If your CD4 count is higher, the problem is very unlikely to be CMV, but you should still tell your doctor about your symptoms. CMV can also cause a detached retina, which needs to be treated with surgery.

The central part of the retina where images are focused is known as the macula. It may only take a small area of damage to this central area to cause a substantial loss of sight. Damage to the retina outside the macula may cause no loss of sight or only the loss of some sight out of the corner of your eyes, but it will usually spread if left untreated.

> *"Sight problems can affect anyone, whether or not they have HIV."*

Treatment

The best way to prevent serious eye problems is to take HIV treatment to boost your immune system. In the UK, it is now recommended that people start HIV treatment as soon as they are diagnosed with HIV, whatever their CD4 cell count. However, some people only find out that they have HIV when they have a very low CD4 cell count. In these circumstances, HIV treatment can still increase CD4 cell count, protect against infections and lead to a longer and healthier life.

Sight loss due to CMV can't be corrected by glasses because the retina is permanently scarred. The aim of anti-CMV treatment is to try to prevent the damage to the retina from getting any worse. Drugs such as ganciclovir, foscarnet and cidofovir can slow down or prevent the CMV lesions from spreading. The drugs can be taken in a number of different ways, including tablets, intravenous infusions, injections into the eye and eye implants.

After CMV retinitis has been stabilised, maintenance therapy using lower doses of the same drugs or oral ganciclovir capsules has to be continued indefinitely to stop it reactivating. If you have experienced sight loss your clinic can refer you to social services that can help you adjust.

If you have a very low CD4 count or a blood test finds signs of CMV infection, you may be offered anti-CMV drugs to try to prevent CMV retinitis from developing.

If the sight problems are caused by a different infection, the appropriate treatment will be used, such as anti-viral drugs for varicella zoster virus, or antibiotics for toxoplasmosis. Uveitis is treated by stopping or reducing the dose of rifabutin, if that is the cause. The symptoms may be helped with anti-inflammatory treatments such as steroids.

Looking after your eyes

Sight problems can affect anyone, whether or not they have HIV. Common problems include short- and long-sightedness. It's a good idea to go for regular eye tests so that any problems can be identified early.

Many of the lifestyle changes that keep you generally healthy will help maintain the health of your eyes. Exercise, a healthy diet, and not smoking or drinking too much alcohol will all help, as will protecting your eyes from direct sunlight.

Checks and examinations

You can check your own eyesight for any distorted, blurred or obscured areas while reading a page of a newspaper. Eyesight can change temporarily after illness because of changes in the lens of the eye. It is recommended that all adults, whatever their HIV status, have their eyes checked at least every two years. It may be recommended you go more often, especially once you are over 40, if you have certain health conditions, or are from certain ethnic groups.

Cataracts – cloudy or blurred patches on the lens of the eye – are common in older people. There is some evidence that people with HIV are more likely to need surgery for the removal of cataracts than others. Having a regular eye test as you get older will allow cataracts to be spotted early. You can then be referred to an eye specialist to determine what treatment might be needed.

Eye examinations are usually done by optometrists, trained professionals in eye health.

They will ask detailed questions about your eyesight, lifestyle, health and any previous eye problems you or family members may have had. You should bring a list of any medication you take, along with your glasses if you use them, or a previous prescription for glasses. Then they will test what you can see, using a chart of symbols or letters.

Your usual optometrist can examine the back of your eye, although you may need to visit a specialist if problems are found.

They will also examine the health of your eyes, inside and out. You may be given eye drops to dilate the pupil of the eye, making it easier for the optometrist to see the interior. They may check the pressure in your eye and test your peripheral vision. They can give advice on eye health, and refer you for more specialist treatment if necessary.

Find out more

GPs and primary care Simple factsheet

Diagnosed with HIV at a low CD4 count Simple factsheet

Mouth problems Simple factsheet

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Sharing knowledge, changing lives

Author: Selina Corkery
Last updated November 2017
Due for review November 2020

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The Information Standard Certified Member

CMV Retinitis and AIDS

By Liz Segre, with updates by Marilyn Haddrill; contributions and review by Charles Slonim, MD

Cytomegalovirus (CMV) retinitis is a sight-threatening disease associated with AIDS (acquired immune deficiency syndrome) — a serious disease of the immune system caused by infection with HIV (human immunodeficiency virus).

In the past, about a quarter of active AIDS patients developed CMV retinitis. However, this figure is dropping dramatically, thanks to a potent combination of drugs used to treat AIDS that help restore function of the immune system. In recent years, these drugs have helped decrease presence of CMV retinitis in late-stage AIDS by more than 80 percent, according to one report.

CMV Retinitis Symptoms and Signs

When CMV invades the retina, it begins to compromise the light-sensitive receptors that enable us to see. This does not cause any pain, but you may see eye floaters or small specks and experience reduced visual acuity (blurry vision) or decreased peripheral vision.

Light flashes and sudden vision loss also can occur. The disease usually starts in one eye but often involves both eyes. If left untreated, CMV retinitis can cause a detached retina and blindness in just two to six months.

AIDS patients sometimes also experience changes to the retina and optic nerve without clear signs of CMV retinitis.

What Causes CMV Retinitis?

CMV retinitis is caused by the cytomegalovirus, a very common virus belonging to the herpes family. About 80 percent of adults harbor antibodies to CMV, which indicates that they have been infected with the virus but their bodies have successfully fought it off.

For people with AIDS, the difference is that their weakened or non-functioning immune system cannot stave off this virus. Other people with a weakened or suppressed immune system, such as those undergoing chemotherapy or a bone marrow transplant, also are at risk. CMV retinitis occurs much less frequently in this group of patients than in the AIDS population.

Also, in older adults with weaker immune systems, the virus can spread from a shingles infection on the forehead and/or nose and infect the retina, causing CMV retinitis.

CMV Retinitis Treatment

If you have active AIDS and are experiencing visual symptoms, you should see a retina specialist immediately. A person newly diagnosed with CMV retinitis can expect to visit the specialist every two to four weeks.

Once the disease is controlled, those visits may be with your regular eye doctor every three to six months, according to Robert Kalayjian, MD, an infectious disease specialist at Case Western Reserve University School of Medicine in Cleveland.

Drugs for CMV Retinitis. The anti-viral drugs commonly used to treat CMV retinitis are ganciclovir (Cytovene), foscarnet (Foscavir) and cidofovir (Vistide). They can slow down the progression of CMV, but they can't cure it.

Like many drugs, these treatments can cause unpleasant or serious side effects. Until recently, all three were given intravenously, and ganciclovir and foscarnet required an indwelling catheter placed in the chest for daily infusions.

Ganciclovir is now available in pill form and oral doses typically are recommended following two weeks of intravenous infusion. It also can be administered via an intravitreal implant called Vitrasert (Bausch + Lomb).

When Vitrasert is used, the implant is inserted inside the eye in the vitreous body. During a five-to-eight-month period, Vitrasert slowly releases a precise amount of ganciclovir. The medication penetrates directly into the vitreous and retina, to the source of the CMV retinitis.

Unlike intravenous or oral ganciclovir, Vitrasert typically does not cause systemic side effects such as nausea. Vitrasert is implanted as an outpatient procedure, not requiring hospitalization. The implantation usually takes less than an hour and requires only local anesthesia.

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Drugs for HIV. The biggest treatment breakthrough is highly active antiretroviral therapy (HAART), a combination of drugs that suppress the human immunodeficiency virus (HIV), also known as the AIDS virus. HAART allows the immune system of an AIDS patient to recover and fight off infections such as CMV retinitis.

Your doctor may suggest you continue taking anti-CMV drugs for the first three or more months of HAART. Your immune system sometimes improves right away, but CMV retinitis can take a little longer to respond.

A few patients on HAART develop a serious, sight-threatening inflammation inside the eye called immune recovery uveitis. Causes of the inflammation are unclear and require further study.

Also, depending on individual variables, patients with CMV retinitis and who are undergoing various drug treatments can be at higher risk for vision problems such as retinal detachment and cataracts. AAV

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References & Notes >>

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