

# **OPHTHALMOLOGY GUIDANCE**

**Federal Bureau of Prisons**

**Clinical Guidance**

**OCTOBER 2018**

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## WHAT'S NEW IN THE DOCUMENT?

**NOTE:** This **OCTOBER 2018 revision** was made to provide updates to Appendices 1–3. Please reference the BOP formulary for the most up-to-date guidance.

The **SEPTEMBER 2018 version** of the BOP *Ophthalmology Guidance* updated the guidance issued in 2008. The key changes were as follows:

- The procedures for evaluating distance and near visual acuity were reformatted in easier-to-follow tables (see [Table 1](#) and [Table 2](#)).
- Three new sections were added: [Section 5. Eye Vitamins](#), [Section 6. Intraocular \(Intravitreal\) Injections](#), and [Section 7. Comprehensive Eye Exam Criteria](#).
- The following Appendices were added with information on ophthalmic agents:
  - ▶ [Appendix 1: Diagnostics and Lubricants](#)
  - ▶ [Appendix 2: Ophthalmic Agents](#)
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## 1. FREQUENCY OF EYE CARE EVALUATIONS

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### INTAKE VISUAL ACUITY SCREENING

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Visual acuity testing is an integral part of the intake physical for all inmates. Criteria for referral for prescription eyewear are outlined in [Section 3. Refraction](#).

### FOLLOW-UP VISUAL ACUITY SCREENING

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Inmates may request a follow-up visual acuity test from their primary care provider. This can be performed as a screening for acuity only. Referral to an optometrist for refraction and eyeglasses is accomplished based on established institution procedures.

### OPHTHALMOLOGIC CARE

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To receive an evaluation by an ophthalmologist, a consultation request will normally be made by an optometrist, a physician, a mid-level practitioner, or other clinical staff acting on an approved protocol.

### RISK-BASED EYE EXAMINATIONS

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Routine, periodic funduscopic eye examinations—ordinarily performed at the chronic care visit—are recommended for the inmates with the following conditions:

- **Diabetes (Type I):** Within 5 years after disease onset, and annually thereafter.
- **Diabetes (Type II):** Upon diagnosis, and annually thereafter.
- **Hypertension:** Baseline and biennial retinal examination is routinely recommended to screen for hypertensive retinopathy, unless retinopathy has been found by the consulting eye care practitioner. However, the clinical benefit of this practice has not been clearly established by available evidence.
- **HIV infection:** Although some specialists recommend screening for CMV retinitis every six to 12 months in asymptomatic patients if the CD4+ T cell count is  $<50$  cells/mm<sup>3</sup>, the benefit of this practice has not been clearly established by available evidence.

If the provider determines that the visualization of the retina is not adequate, a consult should be requested with an eye care practitioner.

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## 2. ASSESSMENT

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**Visual acuity is usually tested one eye at a time, with an occluder covering the eye not being tested.** The right eye is usually tested first, with the left eye covered. If an occluder is not available, and the inmate is wearing eyeglasses, a tissue can be slipped behind the lens of the glasses. The inmate can also be asked to hold a card over the eye, so long as it does not allow the inmate to “peek.” Avoid having inmates cover their eyes with their own hands. This might allow

the inmate to “peek,” and the pressure placed on the eye could affect the measurement. Use normal room light. Make sure no shadow or glare is on the chart or card.

**Large differences of recorded visual acuity over a short period of time may be a sign of severe eye pathology and need to be taken seriously**—even though they may also stem from a feigned attempt on the inmate’s part to achieve secondary gain. If questionable data are suspected and there is no evidence for severe disease or red flags, repeat the visual acuity test on another day (with a different chart, if possible). Compare the visual acuity assessment that you obtain with the visual acuity noted on the intake History and Physical.

## EVALUATING DISTANCE VISUAL ACUITY

Inmates should be tested for distance visual acuity, using the standard *Snellen* eye chart. The procedure is outlined in *Table 1* below. Baseline uncorrected visual acuity should be documented at the intake physical.

→ *In cases where the inmate is a non-English speaker or cannot otherwise read the English alphabet, testing should be based on using the hand to mimic the “E” card direction (up, down, left, right), or on a picture-based “illiterate” eye chart.*

**TABLE 1. PROCEDURE FOR ASSESSING DISTANCE VISUAL ACUITY**

<b>1</b>	If the inmate normally wears glasses or contact lenses for <i>distance</i> vision, have the inmate wear their glasses for this test. The goal is to assess the inmate’s corrected vision. Do not check distance acuity with the inmate’s reading glasses on if the glasses are for <i>reading</i> only.
<b>2</b>	Position the inmate 20 feet in front of the eye chart.
<b>3</b>	Have the inmate cover the left eye, so that the right eye can be tested.
<b>4</b>	Ask the inmate to read aloud the smallest row of letters he/she can, or progressively smaller rows of letters.
<b>5</b>	Once the inmate reaches letters that cannot be read, encourage him or her to “try” or “guess.” If the inmate can read the majority of the letters in this line, ask if he or she can read any letters on the next line down. Repeat until no more letters can be read.
<b>6</b>	Record the smallest line in which the inmate was able to read every letter with the right eye (OD). Record in 20/X format where X = the indicated level of vision on the chart.
<b>7</b>	Repeat steps 4 and 5 above, with the inmate covering the right eye so that the left eye can be tested.
<b>8</b>	Record the smallest line in which the inmate is able to read every letter with the left eye (OS).
<b>NOTE:</b> If the inmate cannot see any line, repeat steps 2 through 8 at a distance of 10 feet. Record the number “10” first (rather than “20”), e.g., 10/100.	

### Interpretation of the Snellen fraction (20/20) is as follows:

- The *first number* represents the test distance (20 feet).
- The *second number* represents the distance from the chart at which the normal eye can see the letters on that line (20/20).
- Therefore, a result of 20/20 means that the eye being tested can read a certain size letter at a distance of 20 feet. For example, a person with 20/40 vision must be 20 feet from the chart in order to read letters that a person with normal (20/20) vision could read from a distance of 40 feet.

## EVALUATING NEAR VISUAL ACUITY

To screen for near visual acuity, use the *Rosenbaum Pocket Vision Screener* or any small print package (such as tissue box, gauze pads, etc.). The smallest print on most packaging represents about 20/25 vision. If the inmate can read this print, record as “approximately 20/25 vision using tissue box.” The procedure is outlined in *Table 2* below.

**TABLE 2. PROCEDURE FOR ASSESSING NEAR VISUAL ACUITY**

1	If the inmate normally wears <i>reading</i> glasses, have the inmate wear them for this test.
2	Have the inmate cover the left eye, so that the right eye can be tested.
3	Have the inmate hold the reading card at normal reading distance, about 14 inches away.
4	Have the inmate read aloud the smallest line he or she can.
5	Record the measurement for the right eye (OD). If the inmate reads at least half of the letters in a line, credit is given for reading that line. The number of letters missed is written in a superscript (e.g., 20/40 <sup>2</sup> ). The number of letters missed is not as important as the smallest line read.
6	Repeat steps 3–5 above with right eye covered so that the left eye (OS) can be tested.

## EVALUATING LOW VISUAL ACUITY

Inmates who cannot read any of the lines on a chart with one of their eyes—or with either of their eyes—should have the vision in those eyes recorded in terms of counting fingers, hand motion, light perception, or no light perception, tested in that order.

- 1. Counting Fingers (CF):** If the inmate cannot read any letters on the chart with the uncovered eye, stand 5 feet away and hold up one, two, or five fingers. If the inmate cannot see the number of fingers being held up, move closer until he or she can see them, changing the number of fingers that are up each time you move. If the inmate can see your fingers correctly at 5 feet, move back until the fingers can no longer be seen. Acuity for that eye is recorded as the maximum distance at which the inmate can count your fingers (e.g., *CF at 5 ft.*).
- 2. Hand Motion (HM):** If the inmate cannot count your fingers at any distance with the uncovered eye, stand 5 feet away again and move your hand up-and-down or side-to-side. Ask the inmate to tell you when he or she can see that your hand is moving. As with the finger counting, move forward or back to verify the maximum distance at which the inmate can see your hand moving. Record the acuity for that eye (e.g., *HM at 5 ft.*).
- 3. Light Perception (LP) and Light Projection (Lproj):** If the inmate’s vision is diminished to the point where hand movements are undetectable, then perform a test for light perception. With the other eye completely covered, turn a bright light on and off in front of the eye being tested. Ask the inmate to tell you when the light “goes on” or “goes off.” If the inmate can see the light, try to determine if he or she can tell which direction the light comes from while looking straight ahead, as you move the light to the right and to the left.
  - ▶ A positive response for light perception is recorded as *LP*; a negative response is recorded as *NLP* (no light perception).
  - ▶ If the inmate can identify which direction a light is coming from, note that in terms of light projection (e.g., *LProj from left*).

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### 3. REFRACTION

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Indications for prescription eyewear for inmates are listed below.

#### INDICATIONS FOR EYEGLASSES

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- **Inmates with corrected visual acuity of 20/40** or better in the worse eye do not need refraction, except as noted below. **Inmates who have visual acuity worse than 20/40 or who complain of headache or other symptoms** potentially related to vision, may request refraction for eyeglasses by copout.
- **Inmates with vision requirements better than 20/40** (e.g., town drivers, those in vision-intensive vocational or educational programs, or those in job assignments requiring constant reading or depth perception such as working on a slicing machine or with dangerous power tools) may be referred for refraction.
- **Eyeglasses may be replaced once every 24 months (consistent with Medicaid) and is at the institution's discretion.** Generally, if the change in refraction is less than 0.5 diopters for either distance or near correction, eyeglasses should not need replacement. If an inmate only needs readers that are available in Commissary, he or she may purchase them there. Currently, there is no mechanism for inmates to purchase their own prescription eyeglasses.

#### INDICATIONS FOR CONTACT LENSES

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By BOP policy, contact lenses ordinarily are authorized only when medically necessary and are not prescribed for cosmetic reasons.

**Examples of conditions for which contact lenses may be approved include:**

- Keratoconus (unilateral or bilateral) with best spectacle correction worse than 20/60–20/80 range.
- Unilateral aphakia (post-cataract with no lens implant) with the aphakic eye having best corrected visual acuity of 20/100 or better. Contact lenses are not required if the eye is amblyopic (lazy eye) or has extensive macular damage.
- Corneal trauma resulting in significant corneal toricity (astigmatism) or central scarring.
- Greater than 4.0 diopters of anisometropia (difference in prescription power) between the eyes, provided that an amblyopia (lazy eye) or strabismus (squint) is not present.
- Severe refractive error (myopia greater than -10.00D, hyperopia greater than +10.00), but only if it is documented that contact lenses provide better vision.

**NOTES:**

- ▶ Because contact lenses may cause eye complications, prior to prescribing the lenses, confirm that there is sufficient time remaining on the inmate's sentence to ensure a proper and healthy fit. If an inmate with contact lenses leaves prior to a final fitting, *do not* send the contact lenses with him or her if reliable eye care cannot be assured.
- ▶ Prescriptions for contact lenses are not to be provided to an inmate who wants to order them from the private sector.
- ▶ Bandage contact lenses that are ordered/provided by an ophthalmology consultant are exempt from these criteria.



## DOCUMENTATION OF RECEIPT OF EYEWEAR

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When inmates are provided prescription eyewear at an institution, it is recommended that they sign and date a copy of the prescription, which is then scanned into the inmate's BEMR record under "Optometry" with "Eyeglass Prescription" as the description.

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## 4. REFERRALS

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### MEDICAL EVALUATIONS BY AN EYE SPECIALIST

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**Medical evaluations are warranted for the following conditions:**

- Failure to achieve normal visual acuity in either eye, unless impairment has been medically confirmed by prior examination
  - ➔ "Normal" = 20/30 or better.
- Significant eye injury or recent undiagnosed eye pain.
- Flashes of light; recent onset of floaters, halos, transient dimming, or distortion of vision; obscured vision; loss of vision; pain in the eye, lids, or orbits; double vision; or excessive tearing.
- Transient or sustained loss of any part of the visual field, or clinical suspicion or documentation of visual field loss.
- New onset abnormalities or opacities in normally transparent media of the eye, or new onset abnormalities in the fundus or optic nerve.
- Tumors or swelling of the eyelids or orbit.
- Protrusion of one or both eyes (without a hyperthyroid diagnosis).
- Eye and orbital abnormalities associated with thyroid disease.
- Inflammation of the eyelids, conjunctiva, or globe (with or without discharge) that has not resolved with topical antibiotic treatment.
  - ➔ *Systemic treatment of eyelid conditions is usually inappropriate.*
- New onset strabismus or crossed eyes, or eyes that turn out. Longstanding, unchanged strabismus does not require referral.
- Abnormal intraocular pressure, especially with a family history of glaucoma and in those of African descent (who have a five-fold increased risk of glaucoma).
  - ➔ *Normal pressure is  $\leq 20$  mm Hg.*
- Diabetic patients (type II, upon diagnosis; type I, within five years of onset) whose funduscopy is not detailed or readily visualized by the examining clinician.
- HIV-infected inmates: Upon diagnosis; annually if CD4 + T cell count is  $<50$  cells/mm<sup>3</sup>; or if ocular symptoms develop.
- Other history, symptoms, or signs that indicate the need for examination/treatment by an ophthalmologist, as determined by a physician or mid-level practitioner.

## SURGICAL EVALUATIONS

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**Medically indicated, emergent or urgent ophthalmologic surgeries should *never* be delayed**, and should be approved by the Clinical Director (or designee) at the local institution. Proper and complete documentation is required.

**The Regional Medical Director (in consultation with a BOP consultant ophthalmologist, as necessary) must approve all elective ophthalmologic surgery**, including surgery for cataracts, keratoconus, and pterygium. Laser surgery for glaucoma and retina surgeries should be approved locally when recommended by the consulting ophthalmologist. The provision of prosthetic eyes or cosmetic eye surgery requires approval by the Medical Director on a case-by-case basis.

### SURGICAL CRITERIA

**The following are criteria for ophthalmologic surgery for BOP inmates:**

- **Cataract Surgery:** Functional impairment resulting from the cataract is the primary factor in determining the need for surgery, as well as the likelihood of improved function following surgery. Most people function well with a best-corrected visual acuity of 20/60 or better. Documented best-corrected visual acuity of worse than 20/60 in both eyes with current (less than six-months-old) refraction is an indication for cataract surgery. Second eye surgery requires documented, best-corrected visual acuity of 20/60 or worse.

**Exceptions (exempted from visual acuity criteria for cataract surgery):** Town drivers at camps; inmates working in UNICOR who require good stereoscopic vision (depth perception) for safety reasons; significant functional impairment from the cataract, even if 20/60 or better, and likely improvement with surgery. Occasionally, a retina specialist will request cataract surgery in a diabetic patient for retinal visualization (i.e., not for improvement in vision).

- **Keratoconus:** Documented best-corrected visual acuity of worse than 20/60 in both eyes with current (less than six-months-old) refraction. Accurate, current keratometer readings (corneal curvature measurements) must be included. If keratoconus is bilateral, the second eye may be approved if the best-corrected visual acuity is worse than 20/60 in that eye. All requests for surgery in keratoconus patients must include current refraction, keratometry, and documented trials with single and/or piggy back contact lenses with fitting parameters.

**Exceptions (exempted from visual acuity criteria for keratoconus):** High risk of perforation; significant functional impairment from the diminished visual acuity, even if 20/60 or better, and likely improvement with surgery.

- **Pterygium Surgery:** Documented significant interference with visual acuity and/or astigmatism change of greater than 3.0 diopters and/or a change of 30° or more in axis (the second and third number in the prescription, respectively).
- **Laser Surgery for Glaucoma:** Laser surgery for glaucoma should be locally approved upon the recommendation of the consulting ophthalmologist. There should be documented failed attempts at intraocular pressure control on maximum medical therapy. Requiring that eye drops be administered at pill line for a period of time prior to surgery will help in documenting that lack of eye drop compliance is *not* the cause of poor control.

- **Laser Retinal Surgery:** Laser retinal surgery should be locally approved upon the recommendation of the consulting ophthalmologist. Proper, completely documented retinal findings should be in the patient's record.
- **Retinal Surgery:** Retinal surgery for tears, holes, detachments, and vitreous hemorrhages should be locally approved upon the recommendation of the consulting ophthalmologist.

### **SURGICAL DOCUMENTATION**

Always obtain a copy of the surgeon's **operative report** and, most importantly, the signed informed **consent form**. Scan them into BEMR. Be sure that the consent form is not the generic hospital form, but the one provided by the surgeon. It will include all of the potential complications and expected outcomes of the surgery.

### **POST-OPERATIVE VISITS**

**Pay very close attention to the time frame for post-operative visits.** Be sure that the inmate is seen as close as possible to the recommended post-operative exam schedule. This will minimize the issues surrounding any unexpected outcomes.

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## **5. EYE VITAMINS**

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- **Available evidence does not support the use of antioxidant vitamin combinations, with or without zinc, for the prevention of eye conditions,** specifically cataracts and age-related macular degeneration (ARMD).
  - **There is only weak evidence to support the use of these vitamin combinations with zinc to treat subsets of patients who already have ARMD,** specifically those with exudative or neovascular (a.k.a. "wet") ARMD, or those with atrophic/nonexudative (a.k.a. "dry") ARMD and extensive intermediate size drusen, one or more large drusen, or peripheral geographic atrophy. There is no benefit for other types of ARMD.
  - **Vitamin combinations containing beta-carotene** are not recommended for smokers or those with asbestos exposure due to an increased risk for lung cancer.
  - **Daily doses of vitamin E greater than 400 units** have been associated with an increase in all-cause mortality.
- ➔ *If an inmate wishes to purchase OcuVite® or PreserVision® products (multivitamins high in zinc and antioxidants), they should be allowed to do so through Commissary as a Special Purchase Order (SPO). They are not formulary.*

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## **6. INTRAOCULAR (INTRAVITREAL) INJECTIONS**

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Intraocular injections (Avastin®, Lucentis®, Eyelea®, etc.) usually are administered multiple times, commonly four to six injections, on an established, time-sensitive schedule. It is important to adhere to these time intervals in order to achieve optimal outcomes.

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## 7. COMPREHENSIVE EYE EXAM CRITERIA

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**Standard elements included in a comprehensive eye exam are listed below and are expected to be documented in the clinical encounter or consultant note.**

➔ *Please share this document with your optometry and ophthalmology consultants.*

1. History
2. Chief complaint
3. Medications, especially eye medications (or make notation, “no meds”)
4. Systemic diseases
5. Vision with and/or without correction
6. Refraction and vision with refraction
7. Visual fields (confrontation)
8. Pupils
9. Motility of extraocular muscles
10. Slit lamp exam—including at least some detail of anatomy
11. Intraocular pressure and technique—applanation, NCT, finger tension
12. If exam was dilated, what agents were used
13. Lens
14. Retina—including optic nerve head, macula, and vessels. Examination of patients with diabetic retinopathy must include presence or absence of macular edema, and stability or worsening of retinopathy.
15. Diagnosis
16. Treatment
17. Follow-up—pterygium and cataracts do not need to be seen more than once a year.

## APPENDIX 1: DIAGNOSTICS AND LUBRICANTS

<b>ABRASION (DIAGNOSTIC USE ONLY)</b>			
<b>GENERIC</b>	<b>BRANDS/HOW SUPPLIED</b>	<b>FORMULARY?</b>	<b>RESTRICTIONS, NOTES</b>
Fluorescein/Benoxinate	Fluress (0.25%/0.4%)	YES	None
Fluorescein Sodium Strip	Fluorets (1mg); Ful-Glo (0.6mg)	YES	None
Hydroxypropyl Methylcellulose	Goniosol Ophthalmic Solution (2.5%)	No	None
<b>LUBRICATION/IRRIGATION</b>			
<b>ACTIVE INGREDIENTS</b>	<b>BRANDS/HOW SUPPLIED</b>	<b>FORMULARY?</b>	<b>RESTRICTIONS, NOTES</b>
Mineral Oil/ White Petrolatum	Lacri-Lube S.O.P.	YES	None
	Akwa Tears Lacri-Lube Ointment (15%/83%)	YES	None
	Artificial Tears Ointment (15%/83%)	YES	None
	Bausch + Lomb Advanced Eye Relief	YES	For medically necessary contact lenses.
	Puralube (15%/85%)	YES	None
	Refresh P.M. (42.5%/57.3%)	YES	None
	Systane Nighttime Eye Ointment (3%/94%)	No	None
	Tears Naturale	No	None
Carboxymethylcellulose	Refresh Tears (0.5%)	No	None
	Refresh Plus Tears (0.5%) single-use vials	No	None
	TheraTears Lubricant Eye Drops (0.25%)	No	None
Carboxymethylcellulose/Glycerin	Optive (0.5%–0.9%)	No	None
Carboxymethylcellulose Liquigel	Refresh Celluvisc single-use vials (1%)	No	None
	TheraTears Liquid Gel (1%)	No	None
	Refresh Liquigel (1%)	No	None
Hydroxypropyl Methylcellulose	Isopto Tears (0.5%)	No	None
	Tearisol (0.5%)	No	None

(Appendix 1. Diagnostics and Lubricants, page 1 of 2)

<b>LUBRICATION/IRRIGATION (continued)</b>			
<b>ACTIVE INGREDIENTS</b>	<b>BRANDS/HOW SUPPLIED</b>	<b>FORMULARY?</b>	<b>RESTRICTIONS, NOTES</b>
Hypromellose	Natural Balance Ophthalmic Solution (0.4%)	No	None
	GenTeal Severe Ophthalmic Gel (0.3%)	No	Flammable; pill line only
	GenTeal Ophthalmic Solution (0.3%)	No	None
	GenTeal Mild to Moderate (0.3%)	No	None
Methylcellulose	GenTeal Ophthalmic Gel (0.25–0.3%)	No	Flammable; pill line only
	Murocel Lubricant (1%)	No	None
Polyethylene Glycol	Blink Tears (0.25%)	No	None
Polyethylene Glycol/Polyvinyl Alcohol	HypoTears (1%/1%)	YES	None
Polyvinyl Alcohol	Artificial Tears (1.4%)	YES	None
Polyvinyl/Povidone	Refresh Classic (1.4%/0.6%)	YES	None
Propylene Glycol	Systane Balance (0.6%)	No	
Propylene Glycol/Polyethylene Glycol	Systane Gel (0.4%/0.3%)	No	
	Systane Ultra (0.4%/0.3%)	No	
	Systane Preservative Free vials (0.4%/0.3%)	No	
Sodium Chloride	Muro 128 Solution (2%)	YES	None
	Muro 128 Solution (5%)	YES	None
	Muro 128 Ointment (5%)	YES	None

(Appendix 1. Diagnostics and Lubricants, page 2 of 2)

## APPENDIX 2: OPHTHALMIC AGENTS

GENERIC	BRANDS/HOW SUPPLIED	FORMULARY?	RESTRICTIONS	NOTES (MECHANISM, ADRS, ETC.)
<b>ALLERGY THERAPY</b>				
<b>Adrenergic</b>				
Phenylephrine	Neo-Syneprine 2.5%	YES	None	
	Mydrin 2.5%	YES	None	
<b>Histamine Antagonist ("Antihistamines" or "H1-Blockers")</b>				
Azelastine	Optivar 0.05%	No	None	
Epinastine HCL	Elestat 0.05%	No	None	
Ketotifen Fumarate	Zaditor Solution 0.025%	No	None	
Olopatadine	Pataday Solution 0.2%	No	None	
	Patanol Solution 0.1%	No	None	
<b>Mast Cell Stabilizer</b>				
Cromolyn Sodium	Opticrom 4%; Crolom 4%	YES	None	
Bepotastine Besilate	Bepreve 1.5%	No	None	
Lodoxamide Tromethamine	Alomide 0.1%	No	None	
Nedocromil	Alocril Solution 2%	No	None	
<b>Vasoconstrictor (Red Eye Reducers)</b>				
Naphazoline	Albalon 0.1%	No	None	
Naphazoline / Glycerin	Clear Eyes Redness 0.012% / 0.2%	No	None	
Naphazoline / Pheniramine Maleate	Naphcon A 0.025% / 0.03%	YES	None	
	Visine-A 0.025% / 0.03%	YES	None	
<i>(Appendix 2. Ophthalmic Agents, page 1 of 7)</i>				

GENERIC	BRANDS/HOW SUPPLIED	FORMULARY?	RESTRICTIONS	NOTES (MECHANISM, ADRs, ETC.)
<b>ANESTHETICS (DIAGNOSTIC USE ONLY)</b>				
<b>Local Anesthetics</b>				
Proparacaine	Ophthalmic 0.5%	YES	None	Rapid onset (30 seconds to a few minutes). DURATION: 10–20 minutes. Occasionally causes transient stinging, burning, redness
Tetracaine	Tetracaine 0.5%	YES	None	
	Pontocaine 0.5%	YES	None	
<b>ANTI-INFLAMMATORIES (NONSTEROIDAL)</b>				
Diclofenac Sodium	Voltaren 0.1%	YES	None	
Bromfenac	Prolensa 0.07%	No	None	
	Bromday 0.09%	No	None	
	Xibrom 0.09%	No	None	
	Bromsite 0.075%	No	None	
Flurbiprofen	Ocufen 0.03%	No	None	
Ketorolac	Acular 0.5%	No	None	
	Acular PF 0.5%	No	None	
	Acular LS 0.4%	No	None	
	Acuvail Solution SDV 0.45%	No	None	
Nepafenac	Nevanac Suspension 0.1%	No	None	
<b>ANTIMICROBIALS</b>				
<b>Aminoglycoside</b>				
Gentamicin	Gentamicin Ophthalmic Solution 0.3%	YES	None	Combination with prednisolone not allowed.
	Gentak Ophthalmic Ointment 0.3%	YES	None	
Natamycin	Natacyn Suspension 5%	No	Ophthalmologist use only.	
Tobramycin	Tobrex Ophthalmic Solution 0.3% and Ointment 0.3%	YES	None	Combination with dexamethasone not allowed.
<i>(Appendix 2. Ophthalmic Agents, page 2 of 7)</i>				



GENERIC	BRANDS/HOW SUPPLIED	FORMULARY?	RESTRICTIONS	NOTES (MECHANISM, ADRs, ETC.)
<b>ANTIMICROBIALS (continued)</b>				
<b>Macrolide</b>				
Azithromycin	AzaSite 1%	No	None	
Erythromycin	Erythromycin Ophthalmic Ointment 0.5%	YES	None	
<b>Quinolone</b>				
Besifloxacin HCL	Besivance 0.6%	No		
Ciprofloxacin HCL	Ciloxan Ophthalmic Ointment 0.3%	YES	Restricted to Pseudomonas infections of the eye. Physician use only. MLP requires cosign.	
	Ciprofloxacin Ophthalmic Ointment 0.3%	YES		
Gatifloxacin	Zymaxid 0.5%	No	Physician use only. MLP requires cosign.	
Levofloxacin	Quixin Suspension 0.5%	No	Physician use only. MLP requires cosign.	
Moxifloxacin HCL	Vigamox 0.5%	No	Do not use for MRSA. Physician use only. MLP requires cosign.	
Ofloxacin	Ocuflox Solution 0.3%	YES	Physician use only. MLP requires cosign.	
<b>Combinations/Miscellaneous</b>				
Bacitracin	Bacitracin Ophthalmic Ointment 500unit/Gm	No	None	
Bacitracin/Polymyxin B	Poly-Bac Ophthalmic Ointment	YES	None	
Boric Acid/ Na Borate/NaCl	Collyrium eye wash	No	None	
Gentamicin/ Prednisolone	Pred-G 0.3%–1%	No	None	
Neomycin/Polymyxin B/Hydrocortisone/	Cortisporin Ophthalmic Suspension	YES	Physician or optometrist use only. MLP requires cosign.	
Neomycin/Gramicidin/ Polymyxin B	Neosporin Ophthalmic Solution	YES	Ophthalmic solution only.	
Neomycin/Polymyxin B/ Bacitracin	Neo/Poly B/Bacit Ophthalmic Ointment	YES	None	
(Appendix 2. Ophthalmic Agents, page 3 of 7)				

GENERIC	BRANDS/HOW SUPPLIED	FORMULARY?	RESTRICTIONS	NOTES (MECHANISM, ADRs, ETC.)
<b>ANTIMICROBIALS (continued)</b>				
<b>Combinations/Miscellaneous (continued)</b>				
Neomycin/ Polymyxin B/Dexamethasone	Maxitrol Ophthalmic Solution Maxitrol Ophthalmic Ointment	YES	None	
Neomycin/Polymyxin B/Bacitracin Hydrocortisone	Cortisporin Ophthalmic Ointment	YES	None	
Polymyxin B Sulfate and Trimethoprim	Polytrim Solution	No	None	
Sulfacetamide Sodium	Bleph-10	No	None	Combination with prednisolone is not allowed.
	Sulamyd	YES	None	
Sulfacetamide/Prednisolone	Blephamide Suspension/ Ointmentg	No	None	
Tobramycin/Dexamethasone	Tobradex Ointment	No	Physician or optometrist use only. MLP requires cosign.	
	Tobradex Suspension	YES	Physician or optometrist use only. MLP requires cosign.	
<b>ANTIVIRAL AGENTS</b>				
Ganciclovir Gel	Zirgan 0.15%	No	Ophthalmologist use only.	Flammable.
Trifluridine HCL	Viroptic 1 %	YES	Ophthalmologist use only.	
<b>GLAUCOMA THERAPY (INITIATION BY OPHTHALMOLOGIST/MD ONLY)</b>				
<b>Alpha 2 Agonists</b>				
Apraclonidine	Iopidine	YES	Ophthalmologist use only.	ACTION: Decreases aqueous production, increases drainage.  SIDE EFFECTS: Burning, dry mouth, allergic reaction, tachyphylaxis, headache, fatigue.
Brimonidine Tartrate	Alphagan 0.1%	No	None	
	Alphagan 0.2%	YES	None	
	Alphagan P 0.1%	No	None	
	Alphagan P 0.15%	No	None	
<i>(Appendix 2. Ophthalmic Agents, page 4 of 7)</i>				

GENERIC	BRANDS/HOW SUPPLIED	FORMULARY?	RESTRICTIONS	NOTES (MECHANISM, ADRs, ETC.)
<b>GLAUCOMA THERAPY (continued)</b>				
<b>Beta Blockers</b>				
Betaxolol	Betoptic 0.25% (5, 10mL)	YES	None	ACTION: Decreases aqueous production.  SIDE EFFECTS: Hypotension, bradycardia, fatigue, bronchospasm, confusion, stinging, blurred vision.
	Betoptic S 0.5% (5, 15mL)	YES	None	
Levobunolol	Betagan Solution 0.5%	No	None	
Metipranolol	Optipranolol Solution 0.3%	No	None	
Timolol Maleate	Timoptic 0.25%	YES	None	
	Timoptic 0.5%	YES	None	
Timolol Maleate Gel-Forming Solution	Timoptic 0.25%	YES	None	
	Timoptic GFS 0.5%	YES	None	
	Timoptic XE 0.5%	YES	None	
<b>Carbonic Anhydrase Inhibitors</b>				
Brinzolamide	Azopt 1%	No	Ophthalmologist initiation only.	
Dorzolamide HCL	Trusopt 2%	YES	Ophthalmologist initiation only.	SIDE EFFECTS: Systemic fatigue, anorexia, depression, dizziness, paresthesias, kidney stones, blood dyscrasias, diarrhea.  TOPICAL SIDE EFFECTS: Stinging, burning, bad taste in mouth, allergy, corneal inflammation.
<b>Miotics</b>				
Pilocarpine HCL	Pilocar Isopto-Carpine	YES	None	ACTION: Increases aqueous drainage.  SIDE EFFECTS: Low vision in dim light, eye pain, stinging, blurred vision, HA, tearing.
<i>(Appendix 2. Ophthalmic Agents, page 5 of 7)</i>				

GENERIC	BRANDS/HOW SUPPLIED	FORMULARY?	RESTRICTIONS	NOTES (MECHANISM, ADRs, ETC.)
<b>GLAUCOMA THERAPY (continued)</b>				
<b>Prostaglandins</b>				
Bimatoprost	Lumigan 0.01%, 0.03%	No	Ophthalmologist or optometrist initiation only.	ACTION: Increases aqueous drainage.  SIDE EFFECTS: Eye pigmentation alteration, stinging, burning, red eye, blurred vision.
Latanoprost	Xalatan (50mcg) 0.005%	YES	Ophthalmologist or optometrist initiation only.	
Tafluprost	Zioptan Solution 0.0015%	No	Ophthalmologist or optometrist initiation only.	
Travoprost	Travatan Z 0.004%	No	Ophthalmologist or optometrist initiation only.	
<b>Acetylcholinesterase Inhibitor</b>				
Echothiophate Iodide	Phospholine Iodide 0.125%	YES	None	
<b>Combination Products</b>				
Brinzolamide/Brimonidine	Simbrinza 1%/0.2%	No	None	
Brimonidine Tartrate/Timolol	Combigan 0.2%/0.5%	No	None	
Dorzolamide HCL/ Timolol Maleate	CoSopt 2%/0.5%	YES	Ophthalmologist initiation only.	See NOTES for Timolol Maleate and for Dorzolamide HCL above.
<b>IMMUNOSUPPRESSANT</b>				
Cyclosporine	Restasis 0.05%	No	Ophthalmologist use only.	
<b>MYDRIATICS AND CYCLOPLEGICS</b>				
Atropine Sulfate	Atropine Solution 1%	YES	None	Cycloplegia may last 5–10 days. Mydriasis may last 7–14 days.
	Atropine Sulfate Ointment 1%	YES	None	
Cyclopentolate HCL	Cyclogyl 0.5%	YES	None	Cycloplegia may last 6–24 hours. Mydriasis may last 1 day.
	Cyclogyl 1%	YES	None	
	Cyclogyl 2%	YES	None	
Cyclopentolate/Phenylephrine	Cyclomydril 0.2–1%	No	None	
(Appendix 2. Ophthalmic Agents, page 6 of 7)				

GENERIC	BRANDS/HOW SUPPLIED	FORMULARY?	RESTRICTIONS	NOTES (MECHANISM, ADRs, ETC.)
<b>MYDRIATICS AND CYCLOPLEGICS (continued)</b>				
Homatropine	Isopto Homatropine 2%	YES	None	Cycloplegia and Mydriasis may last 1–3 days.
	Isopto Homatropine 5%	YES	None	
Phenylephrine	AK-Dilate 10%	YES	None	
Tropicamide	Mydriacyl 1% or 0.5%	YES	None	Mydriasis may last 6–12 hours.
<b>CORTICOSTEROIDS</b>				
<b>Note:</b> If needed, an ophthalmologist should examine the patient at a slit lamp.				
Dexamethasone Sodium Phosphate	Dexamethasone Ophthalmic Solution 0.1%	YES	Optometrist or physician use only. (MLP order for renewal only.)	
	Maxidex Ophthalmic Suspension 0.1%	YES		
Difluprednate	Durezol 0.05%	No	None. (MLP order for renewal only.)	
Fluorometholone HCL	FML 0.1%	YES	Optometrist or ophthalmologist use only. MLP requires cosign. (MLP order for renewal only.)	
	FML Forte 0.25%	YES		
	FML Liquifilm Suspension 0.1%	YES		
Loteprednol etabonate	Alrex Suspension 0.2%	No	Optometrist or ophthalmologist use only. MLP requires cosign. (MLP order for renewal only.)	Flammable; pill line only
	Lotemax Suspension 0.5%	No		
	Lotemax Gel 0.5%	No		
Prednisolone Acetate	Pred Forte 1%	YES	Optometrist or physician use only. (MLP order for renewal only.)	Combination sulfacetamide/prednisolone ophthalmic preparation (Blephamide) is not approved.
	Pred Mild 0.12%	YES		
Prednisolone Sodium Phosphate	AK-Pred 1%	YES	Optometrist or physician use only. MLP requires cosign. (MLP order for renewal only.)	
Rimexolone	Vexol Suspension 1%	No	Optometrist or ophthalmologist use only. MLP requires cosign. (MLP order for renewal only.)	
<i>(Appendix 2. Ophthalmic Agents, page 7 of 7)</i>				

### APPENDIX 3: CONTACT LENS PRODUCTS COMMONLY USED IN BOP

DESCRIPTION	MCKESSON #	UPC	NDC	BEMR #
<b>RGP LENS CLEANERS AND CONDITIONERS</b>				
Boston One Step Enzyme Cleaner Liquid	2498350	0-47144-05602	N/A	53867
Boston Conditioning Solution	1688548	3-10119-05610	N/A	53868
Boston Simplus Multi-Action Solution	2462760	3-10119-05611	N/A	54701
<b>RGP LENS REWETTING DROPS</b>				
Boston Rewetting Drops	2236487	0-47144-05509	N/A	55129
Optimum Wetting/Rewetting Drops	1659390	0-34672-10270	N/A	53842
<b>SOFT LENS HYDROGEN PEROXIDE CLEANING SOLUTION</b>				
Clear Care Solution	1259639	0-47113-60912	N/A	55663
<b>SOFT LENS MULTIPURPOSE SOLUTION</b>				
Opti-Free Replenish Solution 300 ml	1489178	3-00650-35610	00065-0356-10	54047
Opti-Free Replenish Solution 118 ml	1481753	3-00650-35604	00065-0356-04	55676
SM Multi-Purpose Solution 355 ml	1723162	0-10939-17033	49348-0437-39	55662
<b>SOFT LENS REWETTING DROPS</b>				
Opti-Free Express Rewetting Drops 10 ml	2296648	3-00650-19310	00065-0193-09	50380
Bausch & Lomb ReNu MultiPlus Lubricating and Rewetting Drops 8 ml	1618818	3-10119-05220	10119-0052-20	55073
<b>SOFT AND RGP LENS MULTIPURPOSE DROPS</b>				
Blink-N-Clean Lens Drops for Soft & RGP Lenses	2494425	8-27444-00012	N/A	55534
<i>(Appendix 3, page 1 of 1)</i>				