

## APPENDIX A

### COT Exam Content Areas Effective August 2013

#### COA, COT and COMT CONTENT AREA PERCENTAGES

CONTENT AREA	COA %	COT %	COMT %
History Taking	8	6	3
Pupillary Assessment	3	5	4
Contact Lenses	2	3	0
Equipment Maintenance and Repair	4	4	3
Lensometry	3	5	6
Keratometry	3	5	3
Medical Ethics, Legal and Regulatory Issues	5	3	5
Microbiology	2	3	5
Pharmacology	8	5	8
Ocular Motility	3	5	11
Assisting in Surgical Procedures	7	6	3
Ophthalmic Patient Services and Education	16	7	10
Ophthalmic Imaging	3	7	6
Refractometry	6	7	6
Spectacle Skills	3	3	0
Supplemental Skills	8	9	10
Tonometry	4	5	5
Visual Assessment	8	6	6
Visual Fields	4	6	6

#### **Skill Areas for the COT Skill Evaluation**

Candidates will be asked to demonstrate their skill in each of the following seven areas:

- Lensometry - Demonstrate the ability to perform non-automated lensometry to determine the strength of the distance correction and the bifocal or trifocal add.
- Visual Fields - Demonstrate the ability to perform an automated visual field on a specified automated visual field test as determined by JCAHPO.
- Ocular Motility - Demonstrate the ability to detect a phoria or tropia, and identify the direction of the deviation using appropriate cover tests.
- Keratometry - Demonstrate the ability to perform keratometry.
- Retinoscopy - Demonstrate the ability to perform retinoscopy.
- Refinement - Demonstrate the ability to perform refinement.
- Tonometry - Demonstrate the ability to perform applanation tonometry.

#### **Skill Areas for the COMT Performance Test**

Candidates will be asked to demonstrate their skill in each of the following five areas:

- Measure patient's ocular motility using prism and cover tests at a distance.
- Perform manual lensometry: Identify and measure prism.
- Perform fundus photography and identify fluorescein angiography phases.
- Measure, compare, and evaluate pupil function at a distance.
- Evaluate versions and ductions, identifying any abnormalities

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### COA, COT and COMT SUB-CONTENT AREAS

Higher level examinations may contain areas also found in lower level examinations.

CONTENT AREAS	COA	COT	COMT
<b>HISTORY TAKING</b>	Ocular Medical Medication Social Family	Ocular Medical Medication Social Family	Ocular Medical Medication Social Family
<b>PUPILLARY ASSESSMENT</b>	Measure Compare Evaluate RAPD	Measure Compare Evaluate RAPD	Measure Compare Evaluate RAPD
<b>CONTACT LENSES</b>	Measure Patient Instruction Patient Counsel Fitting	Measure Patient Instruction Patient Counsel Fitting	
<b>EQUIPMENT MAINTENANCE &amp; REPAIR</b>	Ophthalmic Lenses, Instruments and equipment i. Clean and lubricate ii. Tighten screws iii. Replace parts	Ophthalmic Lenses, Instruments and equipment i. Clean and lubricate ii. Tighten screws iii. Replace parts iv. Maintenance	Ophthalmic Lenses, Instruments and equipment i. Clean and lubricate ii. Tighten screws iii. Replace parts iv. Maintenance
<b>LENSOMETRY</b>	Neutralize Spectacles i. Automated ii. Manual	Neutralize Spectacles i. Automated ii. Manual Fresnel Ground-in prism Slab-off	Neutralize Spectacles i. Automated ii. Manual Fresnel Ground-in prism Slab-off
<b>KERATOMETRY</b>	Corneal Curvature	Corneal Curvature Keratometer	Corneal Curvature Keratometer
<b>MEDICAL ETHICS, LEGAL AND REGULATORY ISSUES</b>	Third party coding Government and institutional rules and regulations Quality assurance Ethical & legal standards Scribing Confidentiality Informed consent	Third party coding Government and institutional rules and regulations Quality assurance Ethical & legal standards Scribing Confidentiality Informed consent	Third party coding Government and institutional rules and regulations Quality assurance Ethical & legal standards Scribing Confidentiality Informed consent
<b>MICROBIOLOGY</b>	Office antisepsis Universal precautions	Office antisepsis Universal precautions Specimens and biopsies Cultures	Office antisepsis Universal precautions Specimens and biopsies Cultures
<b>PHARMACOLOGY</b>	Ocular medications (instilling and identifying) Educate patients on medications Drug reactions	Ocular medications (instilling and identifying) Educate patients on medications Drug reactions	Ocular medications (instilling and identifying) Educate patients on medications Drug reactions
<b>OCULAR MOTILITY</b>	Version and Ductions i. Functions i. Anomalies Cover Tests Stereoaucuity Nystagmus	Version and Ductions i. Functions i. Anomalies Near point convergence Near point accommodation Fusional convergence amplitudes Cover Tests Strabismus with prisms Worth 4-Dot test Maddox Red Krimsky Stereoaucuity Nystagmus Amblyopia therapy Convergence training	Version and Ductions i. Functions i. Anomalies Near point convergence Near point accommodation Fusional convergence amplitudes Cover Tests Strabismus with prisms Worth 4-Dot test Maddox Red Krimsky Stereoaucuity Nystagmus Amblyopia therapy Convergence training

## APPENDIX A (Continued)

### COA, COT and COMT SUB-CONTENT AREAS

Higher level examinations may contain areas also found in lower level examinations.

CONTENT AREAS	COA	COT	COMT
<b>ASSISTING IN SURGICAL PROCEDURES</b>	Instrument preparation Refractive surgery Sterile fields Aseptic technique Non-refractive laser therapy Intraocular injections Yag laser Sterilization Surgical site identification Laser safety Assist with surgical procedures	Instrument preparation Refractive surgery Sterile fields Aseptic technique Non-refractive laser therapy Intraocular injections PDT procedures Yag laser Sterilization Surgical site identification Scrub technician duties Surgical ophthalmic equipment <ul style="list-style-type: none"> <li>i. Phacoemulsifier</li> <li>ii. Vitrectomy units</li> <li>iii. Laser automated keratometer</li> </ul> Laser safety Assist with surgical procedures Refractive surgical procedures	Instrument preparation Refractive surgery Sterile fields Aseptic technique Non-refractive laser therapy Intraocular injections PDT procedures
<b>OPHTHALMIC PATIENT SERVICES &amp; EDUCATION</b>	<b>Patient Education</b> <ul style="list-style-type: none"> <li>i. Surgery</li> <li>ii. Systemic &amp; ocular diseases</li> <li>iii. Anatomy &amp; physiology (general)</li> <li>iv. Anatomy &amp; physiology (ocular)</li> <li>v. Safety glasses</li> </ul> <b>Patient Instruction</b> <ul style="list-style-type: none"> <li>i. Medication</li> <li>ii. Tests</li> <li>iii. Procedures</li> <li>iv. Treatments</li> </ul> <b>Eye Dressings</b> <b>Patient flow</b> <b>Triage CPR</b> <b>Forms &amp; Manuals</b> <b>Legal forms for government services</b> <b>Vital signs</b> <b>CPR</b>	<b>Patient Education</b> <ul style="list-style-type: none"> <li>i. Surgery</li> <li>ii. Systemic &amp; ocular diseases</li> <li>iii. Anatomy &amp; physiology (general)</li> <li>iv. Anatomy &amp; physiology (ocular)</li> <li>v. Safety glasses</li> </ul> <b>Patient Instruction</b> <ul style="list-style-type: none"> <li>i. Medication</li> <li>ii. Tests</li> <li>iii. Procedures</li> <li>iv. Treatments</li> </ul> <b>Eye Dressings</b> <b>Patient flow</b> <b>Triage CPR</b> <b>Forms &amp; Manuals</b> <b>Legal forms for government services</b> <b>Vital signs</b> <b>CPR</b>	<b>Patient Education</b> <ul style="list-style-type: none"> <li>i. Surgery</li> <li>ii. Systemic &amp; ocular diseases</li> <li>iii. Anatomy &amp; physiology (general)</li> <li>iv. Anatomy &amp; physiology (ocular)</li> <li>v. Safety glasses</li> </ul> <b>Patient Instruction</b> <ul style="list-style-type: none"> <li>i. Medication</li> <li>ii. Tests</li> <li>iii. Procedures</li> <li>iv. Treatments</li> </ul> <b>Eye Dressings</b> <b>Patient flow</b> <b>Triage CPR</b> <b>Forms &amp; Manuals</b> <b>Legal forms for government services</b> <b>Vital signs</b> <b>CPR</b>
<b>OPHTHALMIC IMAGING</b>	Slit lamp/anterior segment photography Fundus photography External photography Diagnostic/standardized A-scan Corneal topography Scanning laser tests for glaucoma/retina <ul style="list-style-type: none"> <li>i. HRT</li> <li>ii. GDX</li> <li>iii. OCT</li> </ul>	Slit lamp/anterior segment photography Fundus photography Fluorescein angiography External photography Imaging artifacts Diagnostic/standardized A-scan B-Scan Corneal topography Scanning laser tests for glaucoma/retina <ul style="list-style-type: none"> <li>i. HRT</li> <li>ii. GDX</li> <li>iii. OCT</li> </ul> Endothelial cell count	Slit lamp/anterior segment photography Fundus photography Fluorescein angiography External photography Imaging artifacts Diagnostic/standardized A-scan B-Scan Corneal topography Scanning laser tests for glaucoma/retina <ul style="list-style-type: none"> <li>i. HRT</li> <li>ii. GDX</li> <li>iii. OCT</li> </ul> Endothelial cell count
<b>REFRACTOMETRY</b>	Refractive error (automated) Manifest refractometry	Refractive error (automated) Manifest refractometry Retinoscopy	Refractive error (automated) Manifest refractometry Retinoscopy
<b>SPECTACLE SKILLS</b>	Transpose cylinder readings	Transpose cylinder readings Prescriptions Vertex distance <ul style="list-style-type: none"> <li>i. Measure</li> <li>ii. Conversion</li> </ul>	

## APPENDIX A (Continued)

### COA, COT and COMT SUB-CONTENT AREAS

Higher level examinations may contain areas also found in lower level examinations.

CONTENT AREAS	COA	COT	COMT
<b>SUPPLEMENTAL SKILLS</b>	IOL power calculation A/C depth Pachymetry Calibrate biometry instruments Tear Tests <ol style="list-style-type: none"> <li>i. Schirmer</li> <li>ii. BUT</li> <li>iii. Rose Bengal</li> </ol> Glare testing Color vision testing Contact A-scan Laser interferometry (IOL Master)	IOL power calculation Low vision A/C depth Pachymetry Calibrate biometry instruments Tear Tests <ol style="list-style-type: none"> <li>i. Schirmer</li> <li>ii. BUT</li> <li>iii. Rose Bengal</li> </ol> Calibration Topography unit calibration Anterior chamber depth Exophthalmometry Glare testing Color vision testing Contact A-scan Laser interferometry (IOL Master) Wavefront diagnostics Corneal sensitivity testing	IOL power calculation Low vision A/C depth Pachymetry Calibrate biometry instruments Tear Tests <ol style="list-style-type: none"> <li>i. Schirmer</li> <li>ii. BUT</li> <li>iii. Rose Bengal</li> </ol> Calibration Topography unit calibration Anterior chamber depth Exophthalmometry Glare testing Color vision testing Contact A-scan Immersion A-scan Laser interferometry (IOL Master) Wavefront diagnostics Corneal sensitivity testing
<b>TONOMETRY</b>	Goldmann applanation tonometer <ol style="list-style-type: none"> <li>i. Clean</li> <li>ii. Disinfect</li> <li>iii. Calibrate</li> </ol>	Goldmann applanation tonometer <ol style="list-style-type: none"> <li>i. Clean</li> <li>ii. Disinfect</li> <li>iii. Calibrate</li> </ol> Intraocular pressure	Goldmann applanation tonometer <ol style="list-style-type: none"> <li>i. Clean</li> <li>ii. Disinfect</li> <li>iii. Calibrate</li> </ol> Intraocular pressure
<b>VISUAL ASSESSMENT</b>	Visual acuity Potential acuity meter measurement Pinhole acuity	Visual acuity <ol style="list-style-type: none"> <li>i. Optotype</li> <li>ii. Special situations</li> <li>iii. ETDRS</li> <li>iv. EVA</li> </ol> Projection chart Contrast sensitivity testing Potential acuity meter measurement Laser interferometer test Pinhole acuity	Visual acuity <ol style="list-style-type: none"> <li>i. Optotype</li> <li>ii. Special situations</li> <li>iii. ETDRS</li> <li>iv. EVA</li> </ol> Projection chart Contrast sensitivity testing Potential acuity meter measurement Laser interferometer test Pinhole acuity
<b>VISUAL FIELDS</b>	Amsler Grid Confrontation fields Automated perimetry	Amsler Grid Goldmann perimetry Confrontation fields Automated perimetry	Amsler Grid Goldmann perimetry Confrontation fields Automated perimetry