AMERICAN ACADEMY OF FAMILY PHYSICIANS

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Recommended Curriculum Guidelines for Family Medicine Residents

Conditions of the Eye

This document was endorsed by the American Academy of Family Physicians (AAFP), the American Academy of Ophthalmology (AAO), the Association of Departments of Family Medicine (ADFM), the Association of Family Medicine Residency Directors (AFMRD) and the Society of Teachers of Family Medicine (STFM).

Introduction

This Curriculum Guideline defines a recommended training strategy for family medicine residents. Attitudes, knowledge and skills that are critical to family medicine should be attained through longitudinal experience that promotes educational competencies defined by the Accreditation Council for Graduate Medical Education (ACGME) http://www.acgme.org. The curriculum must include structured experience in several specified areas. Most of the resident's knowledge will be gained by caring for ambulatory patients who visit the family medicine center. Structured didactic lectures, conferences, journal clubs and workshops must be included in the curriculum with an emphasis on outcomes-oriented, evidence-based studies that delineate common and chronic diseases affecting patients of all ages. Targeted techniques of health promotion and disease prevention are hallmarks of family medicine. Appropriate referral patterns and provision of cost-effective care should also be part of the curriculum.

Program requirements specific to family medicine residencies may be found on the ACGME Web site. Current AAFP Curriculum Guidelines may be found online at http://www.aafp.org/cg. These guidelines are periodically updated and endorsed by the AAFP and, in many instances, other specialty societies as indicated on each guideline.

Each residency program is responsible for its own curriculum. ***This guideline provides a useful strategy to help residency programs form their curricula for educating family physicians.***

Preamble

Family physicians help patients and their family members adjust to acute or chronic illnesses that may significantly affect daily life and family function. Ocular dysfunction presents unique challenges to patients. Family medicine residents must learn to

maximize visual function through the control of environmental factors, the management of disease and preventive care. Deterioration of function can be minimized through initiation of appropriate treatment, including rapid referral where necessary. The family medicine resident must also learn when social and/or psychological intervention is appropriate in patients who have ocular dysfunction.

Competencies

At the completion of residency training, a family medicine resident should:

- Demonstrate an understanding of the impact of ocular illness and dysfunction on patients and their families. (Patient Care, Professionalism)
- Demonstrate an understanding of the ophthalmic consultant's role, including the different responsibilities of ophthalmologists, optometrists and opticians. (Professionalism, Systems-based Practice)
- Recognize his or her own practice limitations and seek consultation with other health care providers when necessary to provide optimal patient care. (Professionalism, Systems-based Practice)

Attitudes

The resident should demonstrate attitudes that encompass:

- A supportive and compassionate approach to the care of patients who have ocular disease, especially in cases of deteriorating vision.
- Recognition of the effects of loss of visual function.
- The importance of support systems in the health of patients who have ocular disease.
- An understanding of the ophthalmic consultant's role, including the different responsibilities of ophthalmologists, optometrists and opticians.

Knowledge

In the appropriate setting, the resident should demonstrate the ability to apply knowledge of:

1. Normal anatomy, physiology and aging of the eye and ocular function (see also *Curriculum Guidelines for Care of Older Adults – Reprint No. 264*)

2. Psychological and adaptive needs of patients with chronic ocular deterioration

3. Effects of drugs and toxins on ocular function and disease

4. Effects of ocular drugs on systemic function

5. Understanding of ocular disability in elderly patients and the importance of regular assessment and maintenance of functional capacity (see also *Curriculum Guidelines for Care of the Older Adult*)

6. Ocular complications of systemic illness

7. Guidelines for appropriate vision evaluation (including recommended time between evaluations) from birth to senescence

8. Initial diagnosis, management and appropriate referral criteria for common eye problems
    a. Refractive errors
        i. Nearsightedness (myopia)
        ii. Farsightedness (hyperopia)
        iii. Presbyopia
    b. Skin and adnexal disorders
        i. Infections
            1). Hordeolum
            2). Preseptal cellulitis
            3). Orbital cellulitis
            4). Dacryocystitis
        ii. Inflammation
            1). Graves' disease
            2). Chalazion
        iii. Eyelid disorders
            1). Entropion and extropian
            2). Ptosis
        iv. Benign tumors
            1). Milia
            2). Papilloma
            3). Keratoacanthoma
            4). Nevus
            5). Xanthelasma
            6). Dermoid
        v. Malignant tumors
            1). Basal cell carcinoma
            2). Squamous cell carcinoma
            3). Lymphoma
            4). Malignant melanoma
            5). Retinoblastoma
    c. Conjunctival disorders
        i. Conjunctivitis
            1). Viral conjunctivitis
            2). Herpes simplex conjunctivitis
            3). Herpes zoster conjunctivitis and keratitis
            4). Bacterial conjunctivitis
            5). Allergic conjunctivitis
        ii. Conjunctival nevus
            1). Pterygium

2). Pinguecula
iii. Conjunctival tumors

d. Corneal diseases
i. Superficial trauma and infection
1). Corneal abrasion (including those caused by contact lenses)
2). Keratitis
3). Corneal ulcers
ii. Dry eye and associated diseases

e. Iritis
i. Unequal pupils
ii. Afferent pupillary defect
iii. Adie's pupil syndrome
iv. Horner's syndrome

f. Cataracts

g. Glaucoma

h. Retinal disease
i. Associated with visual loss
1). Central retinal vein occlusion
2). Branch retinal vein occlusion
3). Central retinal artery occlusion
4). Retinal detachment and vitreous hemorrhage
ii. Associated with medical conditions
1). Hypertension
2). Diabetes mellitus
iii. Macular degeneration
iv. Age-related changes

i. Optic nerve disorder

j. External muscular disorders
i. Cranial nerve palsies

k. Trauma
i. Blunt
ii. Penetrating

9. Appropriate indications for special procedures in ophthalmology and ophthalmoradiology

a. Fluorescein angiography

b. Ocular ultrasound

c. Visual field testing

d. Magnetic resonance imaging (MRI) and computed tomography (CT) of the eye

10. Indications, contraindications, limitations and follow-up care of elective eye procedures, including the spectrum of refractive surgery, cosmetic surgery and procedures.(including the procedures of lens transplant and laser keratomy)

11. Prevention of eye injury and vision loss

Skills

In the appropriate setting, the resident should demonstrate the ability to independently perform or appropriately refer:

1. Evaluation
    a. Perform specific procedures and interpret results
        i. Tests of visual acuity, visual fields and ocular motility
        ii. Direct ophthalmoscopy
        iii. Flashlight examinations
        iv. Fluorescein staining of the cornea
        v. Tonometry
        vi. Slit-lamp examination
    b. Perform physical examination in patients of all ages, with emphasis on understanding normal neurologic and motor responses as well as appearance
    c. Localize the problem and generate a differential diagnosis and management planning
    d. Formulate a rational plan for investigation and management, including assessment of severity and the need for immediate expert assistance
2. Management
    a. Formulate a plan for management, investigation and acquisition of expert advice, with an awareness of the potential risks, costs and value of information that can be obtained
    b. Manage and recognize the prevalent and treatable diseases listed in the "Knowledge" section of this guideline with consultation as appropriate
    c. Manage and coordinate psychosocial and family issues, including long-term care of debilitating ocular conditions, necessary environmental adaptation and use of community resources
    d. Manage appropriate medications
    e. Use appropriate diagnostic tests and medications
        i. Mydriatics
        ii. Topical anesthetics
        iii. Corticosteroids
        iv. Antibiotics
        v. Glaucoma agents

Implementation

Implementation of this core curriculum is best achieved within the capabilities of the particular residency program and at the discretion of the residency director. Family medicine residents should have the opportunity to provide direct patient care under

supervision, with emphasis on common treatable problems, prevention of deterioration and ocular emergencies. Some portion of this training should be attained in the ophthalmology outpatient setting. Family medicine residents planning to provide care in communities where consultation resources are not readily available may need additional training with the assistance of a specialist.

Resources

Berson FG. Basic Ophthalmology for Medical Students and Primary Care Residents. San Francisco, Calif.: American Academy of Ophthalmology, 1999.

Chawle HB. Ophthalmology: A Symptom-based Approach. Woburn, Mass.: Butterworth-Heinemann, 1999.

Trobe JD. The Physician's Guide to Eye Care. San Francisco, Calif.: American Academy of Ophthalmology, 2000.

Vaughan D, Asbury T, Riordan-Eva P. General Ophthalmology. Stamford, Conn.: Appleton and Lange, 1999.

Wu G. Ophthalmology for Primary Care. Philadelphia, Pa.: WB Saunders, 1997.

Web Sites

American Academy of Ophthalmology: http://www.aao.org

- EyeNet Magazine: http://www.aao.org/news/eyenet

National Eye Institute: http://www.nei.nih.gov

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